

GUITAR BENCH

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THE INTERVIEW:

ERVIN SOMOGYI





Thank you so much for speaking to us, Ervin. A lot of us look up to you as a pioneer in lutherie and I was wondering if you could give us a sense of how you got started and how things were for you at that time?

I was born in Hungary; my family and I immigrated to this country in 1959. As immigrants, my parents had the common high aspirations of social and educational achievement for their son. They accordingly planned an academic-professional career for me, preferably a medical one.

An interest in making guitars would have been incomprehensible to them. Indeed, when I turned my attention to this work in my twenties it baffled them completely. If I had told them that I'd decided to raise rabbits in Siberia it could not have confused them more; we had never known anyone who had had the slightest connection with instrument making.

As things turned out, I alllllmmossst made it to medical school; if I had then you and I would not be having this conversation. I dropped out of that track at the last moment, however. I had a crisis in my fourth year of college, which

led me to drop out of the pre-med track and focus on Humanities studies. I graduated from college with a Bachelor's degree in English.

There followed a few years of comparative aimlessness for me, during which I did the dance of finding something that made personal sense, and having "a normal life".

That dance is done between the worlds of having everything decided for one and the world of having nothing decided for one, and I think most young people do this dance in one form or another. Unstructured time can be hell for some people, and I certainly experienced doubts and misgivings in this period. It was a blessing in disguise in my case, however: I'd never in my previous life really had completely free, unstructured time.

Having always been conscious of other people's needs and priorities, I did not have a clear sense of whether these, or which of these, were actually my own. It was within this matrix of unstructured time that I built my first guitar. I did it as a hobby project, and therefore it is truthful to say that my career in lutherie was accidental and unplanned.

Of course, that would have been true of anyone in those days: guitar making by individuals simply did not exist in any form, much less as a goal to strive for.

That first guitar making project of mine didn't come out of a vacuum, though. It had its roots in the fact that a lot of my childhood had been (for various reasons that I had no control of) rather full of isolation and solitude, in which I'd spent a great deal of time being my own entertainment and source of stimulation.

I read books, built models and kits, worked in modeling clay, whittled and carved wood, assembled things with an erector set, made plaster casts, collected stamps and coins and things, used woodburning tools, etc. I used the manual skills that I'd learned as a boy, to build that first guitar. And, in doing so, I found a way whereby I could apply those early skills to an occupation that offered some things I couldn't find in one package anywhere else: a haven.

Besides being a personal haven, guitar making is genuinely challenging, and it offers the satisfaction of creating something tangible. It also offers some really interesting mental and conceptual challenges that pull from woodworking, history, physics, acoustics, music, engineering, art, design, one's sense of spatial relationships, and even spirituality. In addition, lutherie offers a remarkably free rein to one's imagination; the work has no creative ceiling and you can improve your work forever if you want to; and, as with being an author, one can do this by one's self.

There's more. If one likes to teach and write, lutherie offers lots of things to write about and otherwise share. And it does these things pretty much without the world of academia, business, or bureaucracy's infighting and resistance to lateral thinking -- which I'd already seen a bit of. Finally, lutherie has held my interest even though some very difficult times when there was no money and I felt completely bewildered by repeated failures.



Those difficult times also include having depressions. (The reasons for these are deep inside me, and I continue to suffer from them. For anyone who's interested, I've touched on these matters more fully in other writings that can be found in the "articles" section of my website.) As I said above, making guitars has also been a refuge from the world that I could withdraw into when it has become too much for me.

On the other hand, since making guitars by hand made no sense to my parents, there was also a way in which it was problematic for me. What I mean is that, all the personal satisfactions aside, no real history or context for such work existed then. Not in this country. With the exception of the oddball craftsman who made a few instruments -- mostly violins, but also a few guitars and mandolins -- guitars were the domain of the factory.



Aside from any instruments that had been made in some exotic workshop in Europe (which has a centuries-long tradition of hand-craftsmanship) every guitar any American had ever heard of came off the production floor of the Martin, Gibson, Guild, Harmony, Fender, Stella, or Epiphone companies.

I have become a pioneer, teacher, and authority in this work based in the things I've learned in the forty-plus years that have passed since I began, but I certainly didn't know what I was doing then. And, unlike the situation today, there was no lutherie awareness or culture to help with that.

There were no American guitar making schools or teachers, no lutherie books, no guitar magazines, no plenitude of guitar players, no guitar making organizations, no instructional videotapes or DVDs, no internet, no discussion forums, no really good American guitars to emulate or copy, no guitar shows or festivals, and there were very few other guitar makers who knew anything or would share their knowledge with you.

Things got a real boost in the early 1970s with the formation of the Guild of American Luthiers. This organization was a life-saver for us young woodworkers: it became the nucleus for those of us crazy enough to do this oddball work to coalesce some sense of professional identity around (I have posted an article about the history of the G.A.L., and my relationship with it, on my website for anyone who is interested in that topic).

On the other hand, if making guitars was something that I simply liked doing, I believe that a lot of us in those early days were doing it for much the same reason. This factor is significant, I think.

The phenomenon of young men doing something that "they liked" very likely arose out of the singular fact that, for the first time in many generations, there was a lack (at least in the middle-class population) of overwhelming need to struggle for economic survival.

For young white urban men, at least, there was a sense that we wouldn't starve regardless of what we did: the social and economic outlook of post-world-war-2 American middle-class culture seemed bright and full of confidence.

Had this not been the case, all of us would certainly have gotten "regular" jobs with which to support our families . . . just as our own parents had, and their parents before them had. And non-European lutherie would never have been born.

Lutherie has moved on by leaps and bounds since your early days in this work -- especially with educators like yourself. Can you say something about what you're doing now with your book and workshops?

My book (it's actually a two-volume set) is not selling in large numbers, but it is selling steadily. It seems to be generally well regarded; I've packed forty-plus years of learning and information into it about the ins and outs of making guitars, and I get a fair amount of email acknowledging how useful my explanations are toward clearing up various aspects of the work that people have found confusing.

“the fact is that guitar making is rather like making automobiles in that there are so many aspects of that work that one can focus on”

I think it's a big help that I use everyday language and give down-to-earth examples of things that other books report on with sometimes obscure and technical language. Outside of that, my book is expensive and represents much more of an investment than the average book does; it's priced very much like a college textbook. But then again, it is precisely a textbook.

I'm writing a third volume, by the way. I'm finding that there's always one more thing to think about, or write about, or ask questions about, or even re-think.

In mentioning my workshops, I think you're referring to my annual voicing classes. I seem to have put myself in the unique position of becoming a guide in the voicing of the guitar -- as compared with the building and assembling of it.



My interest in this level of guitar making work has been at the front and center of my thinking for many years now; the fact is that guitar making is rather like making automobiles in that there are so many aspects of that work that one can focus on: one can be primarily concerned with the challenges of efficiency in production; or the demands of ergonomic design; or the problems of fuel efficiency; or the concerns of suspension and driver comfort; or the problems of brand recognition, brand loyalty, and market share; or the problems of mechanics, engineering, power and maneuverability; or the problems of impact safety . . . you get the point.



It's the same with guitars: one can be primarily interested in wrestling with the problems of how-many-guitars-can-I-crank-out-in-a-month or year (and all the puzzles one has to solve in order to succeed); or with the problems how-good-are-they? (and all the puzzles one has to solve in order to get a handle on that); or the challenges of how unique do I want my guitars to look, as opposed to making clones of someone else's instruments; and so on. With both cars and guitars, of course, all of these concerns are subsets of the larger problem of economic survival.

But within that context I, personally, seem to have been most fascinated by the problems of sound -- and also the problems of artistry/aesthetics. I've never been fascinated by the problems of how many guitars I can produce within a given span of time; I've been making guitars since 1970 and I'm presently working on guitar No. 445 (in total), so you can do some math and figure out my rate of production -- far less than one a month if you factor in the man-hours, considering that I have apprentices and helpers who are part of my production process.

You'll have to take my word about my successes in the tone department, but the artistry and aesthetics are viewable on my website, for anyone who is curious about how my guitars look.

Despite the fact that I've written about seven hundred pages worth of information about different ways of coaxing sound out of a soundbox, the gist of it is: dare to make your construction light. Most guitars that are made these days are seriously overbuilt. However, the guitar does not need to be over-constructed in the same way that bridges and buildings need to be sturdily built.

The guitar is a unique engineered construct that does have to be tough and durable in specific places (it has to hold together), yet it must be responsive and therefore delicately, and comparatively flimsily, built in others (it has to have a voice). In my voicing class I show my students how and where to attend to these opposite mechanical and tonal needs of the soundbox.

And my students aren't the only ones who learn in my classes. One learns new things by teaching and working with inquiring minds. So my class benefits from that in that I keep on including new information and new perspectives.







As players we tend to be obsessive with our instruments, dings and cracks. By building light and having that difficult balance between light construction and durability, do you encounter more cracks or propensity for the instrument to more fragile? And are cracks even that bad?

Finding the optimal balance point between tonal openness (fragility of construction) and durability is indeed tricky – but it does not occur in a theoretical vacuum. It occurs within the context of how one designs, makes, and handles one's guitar in real life.

What I mean is that while cracks and damage are always real dangers with anything that is delicately constructed, there is an expectation on the parts of both the maker and the player that anything that is valuable and delicate will be handled with care – no differently than how one would treat their automobile, expensive camera, valuable collectible, or fine china.

Of course, not all players are obsessive in caring for their instruments. The most obvious example is Willie Nelson's guitar, which has had a big chunk of its face literally worn away by years of use. For Andres Segovia: cracks, bad. For Willie Nelson: cracks? What cracks?

There are four principal factors that affect structural integrity of a guitar. First, is how delicately it was made to begin with. Some guitars – especially commercially made ones – are as close to being indestructible as the manufacturers can get away with: they don't want to be inundated with warranty work, after all. Second, as I just said, is how carefully or carelessly one handles one's instrument.

Most guitars are not misused but damage occurs when a guitar is bumped into something, or when it falls over, or when it is subject to some unusual stress – as when the strings are over-tightened, or the cat knocks it over, or someone forgets the guitar is on the couch and then sits on it. But, as a rule, if something is handled carefully it will last a long time.

Third is temperature and humidity; cracks and de-laminations are likely if one's guitar is exposed to environmental extremes and consequently heats up and/or dries out past the abilities of the glue joints and wood fibers to hold together. Here, too, prudent care of the instrument is high on the priorities list.

The final factor is not so much one of outright damage as it is of physical distortion of a delicately built soundbox from the effects of torque and string pull.



Such distortions, settling-in of the woods, imprinting of the bracing into the soundboard, etc., are normal and not usually significant in anything other than an aesthetic way. On the other hand, if there are actual cracks in the wood, or if the neck has bent forward so much from the pull of the strings that playability is affected, then a visit to the repairman is in order.

Small cracks, if they occur, are dangerous in that they might grow into larger cracks; but also, they represent a weakening of the guitar's sound-producing membrane and one might notice a change in the instrument's sound as a result of that. I mean, imagine playing a drum and then having someone poke a hole into it; how can it not respond differently if its principal vibrating diaphragm has been perforated?

Most cracks follow the grain of the wood and are easy to fix. If there's cross-grain fracturing, however, that constitutes more serious damage; actual patching (insertion of new wood) may be needed, especially if a hole has been punched into the instrument.

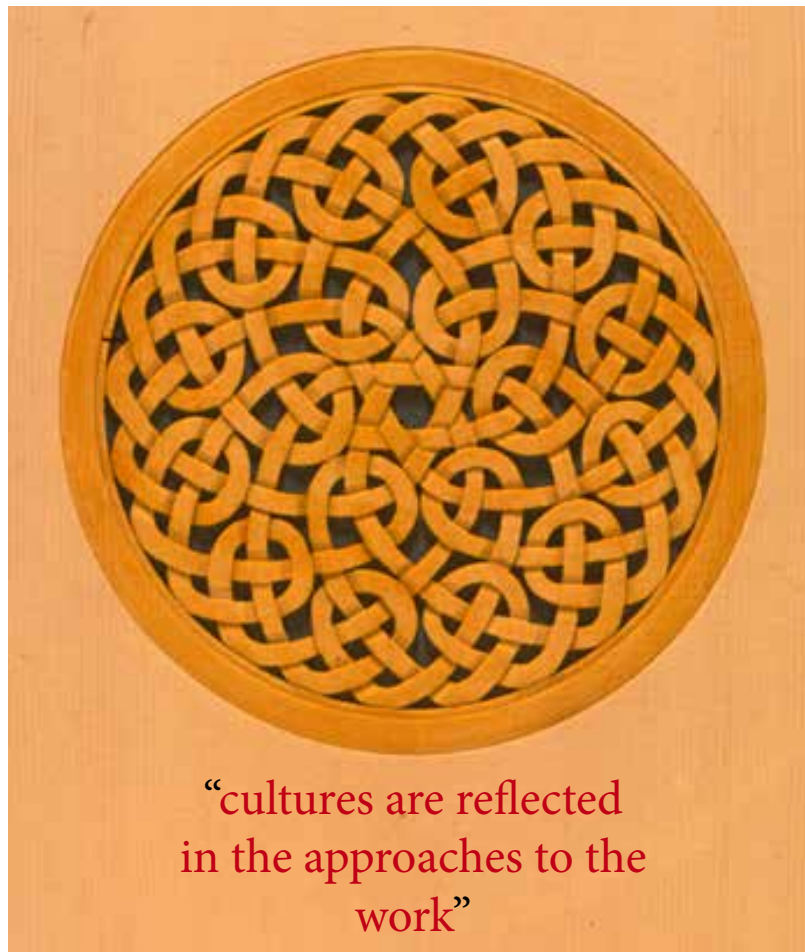
There are also little-discussed cultural and commercial factors of attitude that are involved in the care that we treat our possessions with.

European instrument making has come out of a centuries-long tradition of hand craftsmanship; care of the things that are made is part of that. The American tradition is based in commercial manufacturing of products for a mass market.

Care of the things made is therefore not generally emphasized so much. And speaking of balancing acts (as I spoke of above), the prototypical manufacturer's balancing act is carried out around considerations of making things be sturdy, combined with an industrial imperative to planned obsolescence. No, I'm not making that up.

Consider the blanket plenitude of things that Americans KNOW will sooner or later become obsolete: the current generation of cars and airplanes; military weapons systems; businesses and markets of all kinds; trends and fashions; all electronic, mechanical, manufacturing, agricultural, and chemical technology; and, finally, buildings, roads, and bridges.

I mean, if anything goes wrong, we'll buy a replacement of the failed one or develop a better one. In Europe, on the other hand, there are bridges, roads, and cathedrals that are many centuries old. Therefore, as far as guitars go, the human mindset and culture play their part just as much as the weather and our cats do.



“cultures are reflected
in the approaches to the
work”

Do you think this difference in cultures between Europe and the US is reflected in the building philosophies? I notice a lot more Spanish heel construction even on steel strings in Europe, for example....

Yes, the cultures are reflected in the approaches to the work -- although it's not a matter of a straight one-to-one correlation. Basically, both European and American luthiers have to do the mating ritual (if I can call it that) of artistic sensibility vs. economic reality, which sets the ground rules for survival. But on the whole I do think there are different philosophies in play.

Before jumping into this topic, let's start by acknowledging that there is a difference between culture and tradition. Tradition is “this is how we've been doing it, and how we continue to do it”, but not much more than that. And tradition is changeable. Culture, on the other hand, is subtle, all-pervasive, and

has great staying power. One might say that tradition is a specific application; culture is the general rule; as such, it's in the driver's seat. As far as a culture's expressing itself in lutherie (or any other kind of work) goes, one path to an understanding of this is to look at the history behind it -- and Europe and the United States have markedly different histories.

Basically, Europe has a millennia-old history of rise and fall of empires/cultures -- political, military, religious, philosophical (the Arabs had the first scientific one), and mercantile ones -- with all the wars, exploration, trade, royalty, religious and political factioning, dynasties, languages, conquests, revolutions, advances, defeats, intellectual and artistic flowerings, ethnocentrism, and slow erosions that come with all that.

The United States, on the other hand, has a history that is exactly 237 years old at the time

of this writing. Having defeated Germany and Japan militarily, the Soviet Union politically and economically, and the world electronically, the United States can today lay claim to being the world's leading military, financial and technological empire/culture -- at least for the time being. India and China are catching up, and the Soviet Union is making a comeback.

This isn't a primer on American culture, but I just wanted to say that American social and economic culture has been based in (or at the least decisively influenced by) the spiritual, social, and economic imperatives of two of the dominant intellectual/spiritual paradigms of the modern age -- both of which came over from Europe.

The first of these is the Industrial Revolution. The United States has been more about mass-producing consumer goods for a mass market than Europe ever was for most of its history. The second is the Protestant Work Ethic; this came over in drips and drabs, but got a HUGE impetus with what has been called the Protestant and/or Celtic Migration -- the arrival into this country of hordes of [Scottish, Irish, Welsh, and other Northern European] people who brought with them an energy and a genius particularly adapted to technical inventiveness.

A great many of the founding fathers of American capitalism and productive enterprise belonged to this pool. Fed by the raw and almost limitless commercial possibilities offered by this new land, these people very largely produced American culture -- which is deficient, if in anything, in long-standing traditions of its own in art and craftsmanship. And regardless of how long-standing or not American aesthetic culture is, it is deficient in -- or freed from the constraints of, if you prefer -- a sense of classical proportion as derived from the contours of natural objects and the organicity of the human body; this is not called "the new land" for nothing. And I'll come back to this point a bit further on, as it has something to do with guitar making.

**"histories present a
younger generation with
different models to follow"**



Okay, we're coming to the end of this lecture now. But the fact is that these histories present a younger generation with different models to follow. In this regard, in lutherie, Europe offers makers such as Maler, Duiffenpruchar, Fleta, Hauser, Ramirez, Simplicio, Bernabe, Santos Hernandez, Monch, Friedrich, Romanillos, Contreras, Conde, Estes, Van der Waals, Wagner, Dammann, and a host of other talented individuals.

I mean, these are the names that people know. In the United States, on the other hand, the models have traditionally been manufacturers: Martin, Gibson, Rickenbacker, Fender, Mossman, Taylor, Collings, Epiphone, Stella,

Harmony, Guild, etc. The only individuals anyone can name in pre-1970 American lutherie (as opposed to manufacturing, that is) are the Larson brothers and John D'Angelico. Finally, I should point out that the classical guitar is a European invention and the steel string guitar is an American invention. A lot follows from this, as each of these versions of the guitar carries a different cultural load -- and this is precisely our topic.

One interesting example of the resultant differences in building philosophies -- even before anyone picks up a tool or a piece of wood -- is how guitars are named and even expected to be named. Every luthier-made Spanish (i.e., nylon or gut strung) guitar carries the name of its maker on its label; such instruments are assumed to come out of a craftsman's tradition which someone wants to take individual credit for -- and to do otherwise is unthinkable.

But many individual American steel string guitar makers, in labeling their guitars, seem to aspire to the cachet of being associated with a manufacturing tradition. Or, at least, they seem to prefer to identify their work with a brand name rather than to identify own names with their products. At the time of this writing Froggy Bottom, True North, Running Dog, Nashville Guitar Co., Shanti, Moonstone, Bear Creek, Bear Mountain, Evergreen Mountain, Timeless, Golden Wood, etc. guitars are all made by individual luthiers but you'd never know it. And no one thinks anything of this because it's so culturally ingrained.

Also, these names themselves carry a particular spin of culture. It cannot be an accident that so many of them have the whiff of nature, the land-in-process-of-being-conquered-and-tamed, the Midwest and the Rockies, the mountain men and the wilderness, the great outdoors, etc. Can you imagine a guitar brand with any urban-sounding name such as Fifth Avenue, Boston Harbor, Subway, West Side, Main Street, Codfish, The Stockyards, Wall Street, Gold Rush, Founding Fathers,



The Cotton Mill, Vaquero's Choice, Urban Landscape, Cape Canaveral, Fort Knox, Assembly Line, Sioux Nation, or Walla Walla Washington Guitar Co.? Interestingly, and undoubtedly because of John D'Angelico's influence, and because he was making guitars whose design was informed by the European culture of violin-making, using anything other than their own names seems unthinkable to archtop luthiers. Even the pioneering Larson brothers made guitars under many commercial names.

I mentioned a deficiency in long-standing artistic traditions, above, and you mentioned differences in guitar heel design. Well, the Spanish guitar heel (by the way, the nylon-string guitar is formally called the Spanish guitar regardless of where it's made) is a good example of the artistic traditions you asked about: it is lovely in lines, proportions and crispness of execution; it looks pretty. The industrial version of that tradition (i.e.,

the American way of doing this) is to stick something hurriedly shaped onto an equally hastily crafted guitar. Remember: the cultural mindset that informs this work is that of mass production; and I'm not criticizing this: I'm describing it neutrally. The heel will therefore be more pragmatically shaped than lovely; the crispness will be gone, and the curves and contours will be what the tooling can most efficiently produce. Period.

In contrast, as I said, the inner curve of a nicely made classical guitar's heel (where it blends into the back of the neck) is lovely . . . and it's organic, like the curve of a woman's breast. The guitar is enhanced by it. These curves are all a little bit different, from maker to maker. In part, this is because that curve is made by hand, but also because it is a subtle but proprietary part of the craftsman's style.

On the other hand, I defy you to find a modern steel string guitar neck in which its transition into the heel is NOT a four-inch-diameter curve that looks compass-drawn. They're all the same, even on the expensive guitars. That curve is the size of the front roller of any of today's belt sanders – which tool is usually used to produce that contour.

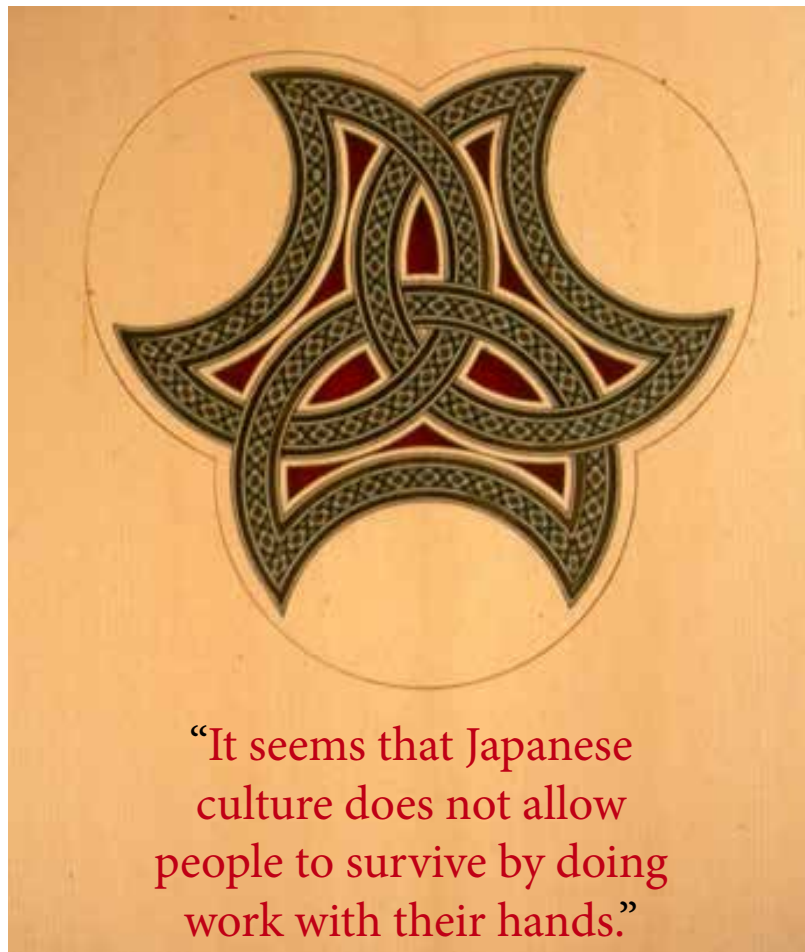
The same factors of efficiency vs. whatever-else-it-is-that-those-Europeans-do underlie the design of the bridge, the rosette, the peghead, and the choice of material for the binding. These are all very visible parts of the guitar. But there are a great many less visible differences as well. Altogether, these things touch on two of the basic philosophical/cultural differences between these lutherie traditions: the reliance on the use of hand tools vs. power tools, and artistry.

And these themselves rely on a third and massively underappreciated quantity: the general level of hand skills in the community -- another thing that American culture is deficient in. I bring this up because I used the word "efficiency" a few sentences ago; it is true that factories can produce hundreds of guitars



a month and that individual luthiers can't do that. But I know Mexican luthiers who can produce two complete, nicer-looking-than-factory-guitars, and good-sounding hand made guitars per week (except for the finishing, which is done by a third party), and no American luthier I know of can compete with that. We lack the skill level. Period.

There's much more to say about all this but I think there's a limit to how long my answer to your question can get. I will say that the culture of guitar making today is, in addition to all the above, an outgrowth of the cultures of the musical networks that play the various kinds of guitars that we make. That too is bit too complicated to go into right here, but I refer interested readers to my website and invite them to read my essay on The Challenges to the Luthier in Mastering Both Steel String and Classical Guitar Making. I think it's worth a few minutes of one's time to look up and read.



And somehow to my eyes anyway, the Japan lie somewhere in between, extreme efficiency with enormous respect for hand skills? Afterall, I have noticed you have a number of Japanese apprentices...

You've identified a popular stereotype. The truth is not quite so simple. The Japanese approach their various strengths, life challenges, and limitations differently than the rest of us do and I will say, in admiration of them, that they have a work ethic and a loyalty-to-the-team ethic that puts Americans' versions of these to shame. As I said earlier, such versions of life-strategies come out of a national history, and also out of a broader culture, and in no small part the parenting styles that are part of these respective cultures.

I want to make four points before going on to talking about how my Japanese apprentices

embody certain Japanese cultural attitudes. First, the Japanese are fully as productive in a non-hand-skill way as any other industrialized country: witness their automotive and electronics industries.

Second, Japan is a small, crowded, and geographically isolated country with few natural resources: therefore the struggle for survival – i.e., how hard one has to work in order to survive – is intense. The culture is focused on working hard – to the point that it is accepted that people die of it. They even have a name for that: *karoshi*: it means death from overwork.

Third, Japan has changed so much in the last century that a lot of the respect for tradition, hand tools, etc. is pretty much outdated and romanticized lip service. It is a metaphor of this that the crane, that traditional icon whose



image is so common and evocative of Japanese-ness, is virtually extinct in Japan. There does exist a culture of reverence for traditional masters of Japanese artistic craft, who are considered to be national treasures. But this culture of reverence is disappearing. The national treasures are all very old and young people are not replacing them; the young are seduced by everything that is modern and have very little interest in doing anything the old way.

Fourth (and related to the third): there is in Japanese culture, on an everyday level, a deficiency of using hand tools. In the United States one can walk into any hardware store and buy a cordless drill, files, saws, and other hand tools with which to do home projects or repairs, automotive repairs, gardening, or even more ambitious projects; most adult Americans have basic tools in their garage or basement.

But when I was in Japan I noticed an absence of such easily available hand tools; they could of course be obtained in specialty stores, and they were on the expensive side; but you couldn't

just pick them up anywhere like you can here. Likewise, in looking around to buy presents to give to my friends when I returned, I noticed an absence of inexpensive handmade things to buy – such as one can find in any crafts store in many American cities.

There were plenty of electronic things to buy, of course, and things made of plastic . . . but very little made of wood or bamboo, handmade jewelry, or things like tie-dyed or batik tee-shirts, or any of the gift items made by own cottage-industry culture that tourists buy when in the U.S. to take back to their countries.

It seems that Japanese culture does not allow people to survive by doing work with their hands. A few artists and craftsmen undoubtedly do, but they will be highly trained of this or that art form; they are not mere craftsmen in the Western sense of the word.

The exceptions to this are the crafts-communities of Kamakura, Toyama, and others. Like the town of Paracho in Mexico, in which the main industry is guitar making,

these are centers where the main industry is artistic woodworking (or other kind of working): the things they produce are beautiful, skillfully executed, and expensive. And these are certainly not within most people's easy reach. The point I'm making is that use of hand tools – in this case home-workshop woodworking tools, and also automotive repair tools, home improvement tools, gardening tools, etc. – are not much part of the Japanese domestic landscape.

“Japanese apprentices do bring with them that non-Japanese lack, is a reverence for their teachers.”

To work with them is specialized activity. I should add that the average Japanese home or apartment is small. There are few garages and basements, and there's little space for tools, work space, storage, and such. This is not a do-it-yourself culture in the way that American culture has traditionally been; at least, I think this from what I've seen. Finally, with such unfamiliarity with common hand tools being the case, from where would the average Japanese learn personal respect for hand tools and hand work?

There is obviously some appreciation for institutional and cultural hand work – as seen in their temples, art, calligraphy, and such – but this is not the same as knowing and doing hand work personally.

Finally, I should add that the culture of familiarity with hand tools and hand skills seems to be likewise disappearing from the American scene. When I was young and had a flat tire I jacked the car up and changed the tire. Most Americans now have never changed a tire. Young Americans are perhaps computer savvy but I have a strong impression that they have no idea of how their cars, washing machines, faucets, door hinges, most other mechanical/electrical/hydrological things, furniture, or appliances work.



I've had three Japanese apprentices and am presently training my fourth one. All went to University – which by itself sets them apart from the average person. And, interestingly enough, despite the fact that they have turned to making guitars, three of them have degrees in engineering of one kind or another, and the fourth has a degree in physics (and then went into engineering work after graduation).

This suggests to me that their initial attraction to the work is the engineering and technical aspects of it, but combined with a certain element of plasticity or lack of rigidity.

Otherwise, what Japanese apprentices do bring with them that non-Japanese lack, is a reverence for their teachers. Westerners are unwilling to subordinate themselves so completely to the will of authority figures. And these different attitudes are rooted in deeply ingrained cultural values.





Let's switch a bit and get your take on the various tonewoods..... Brazilian is still very popular for you I gather?

Well, in case a one-word answer isn't sufficient, let me say a few other things.

First, I really do love Brazilian rosewood, particularly the traditional (and most sought-after) *Dalbergia Nigra* variety. I've always loved it. It's beautiful to look at: it has exquisite sunset colors and visual depth. It sounds better than most other woods. And it isn't called rosewood for nothing: it really smells like a rosy perfume.

Second, one of the things no one thinks of in guitar making is that when one is first establishing one's self, whatever it is that they do at first that "catches on" is exactly what they'll be known for -- and that's what people will want from them. In my case, since it's my Brazilian rosewood guitars that people know about, that's the wood people want from me.

What I'm saying is that regardless of Brazilian rosewood's good qualities, if the guitars that I'd made that originally found acceptance in the market had been constructed with East Indian

rosewood (or something else), that's what people would expect me now. It's illogical, but that's how it is.

Third, as far as use of rosewoods in guitars goes, *Dalbergia Nigra* has been the traditional "Holy Grail" rosewood of flat-top guitar making woods. And for good reason. Besides tradition, this Brazilian rosewood is prized for its pleasing aroma, good working properties, sheer colorful beauty, very high "Q" (i.e., liveness of tone) . . . and also its cost and, these days, rarity. This last has to do with the fact that while it was once plentiful, it has been logged out.

There may be a few trees of this species left, but no one (other than poachers, which is another story) is cutting them down. Due to its endangered status, *Dalbergia Nigra* was CITES-listed on Nov. 6 1992 in Appendix I (i.e., the most protected), and illegal to trade in. What is left of this wood is presently hoarded in warehouses, and resides in old buildings that are being demolished, and their building materials recycled. More on this a bit further below.

But first, to give one an idea of how plentiful this beautiful and fragrant wood used to be, consider that it used to grow in a territory measured in thousands of square miles. Consider also that when American warships were decommissioned after World War II and put into mothballs, they were of course stripped of anything useful.

Shipboard mess-hall table tops weren't considered useful, and three-inch thick slabs of Brazilian rosewood that had been table and counter tops were stacked up in huge piles in various East Coast naval docks -- where the wood sat in the rain, baked in the sun, and rotted. Pioneering American guitar maker Tony Murray, who used to have a shop in San Francisco, told me that a lot of the East Coast luthiers (and suppliers) raided those piles of wood for their lutherie needs. No one else wanted them; they were military surplus right alongside unneeded mosquito netting, rain tarps, canteens, and helmets.

Fourth: as far as the current rosewood situation goes, you should know that several different "Brazilian rosewoods" exist -- that is, trees of the genus *Dalbergia* that grow in that country.

Brazil is itself almost as large as the United States' land mass (the areas of United States and Brazil are 3.8 million square miles and 3.3 million square miles respectively, so I'm not exaggerating much), and it's understandable that various species of its rosewoods would have grown and thrived in its different regions in consonance with their various climates, clay/loam composition of the soil, its minerals content and pH, rainfall, etc.

Dalbergia Nigra trees used to grow in the region of the Atlantic-side forests of Bahia and Minas Gerais -- at the southern tip of which Rio de Janeiro is located. But as I said, *Dalbergia Nigra* has been pretty much harvested to extinction and most of its habitat has been converted to farmland.

In recent years other Brazilian rosewoods besides the *Nigra* species have been marketed as "Brazilian rosewood" -- which of course they are. Rosewood stumps of a different species, from thousands of square miles of the decades-ago-cut-down rosewood fields (from the yet more southern Brazilian state of Sao Paulo), have been being harvested and imported into this country.



This wood, which is as I said a genuine Brazilian rosewood, is variously referred to as stumpwood or Santos rosewood*. It is in many cases fully as live as the best *Dalbergia Nigra*, but not as colorful. Whereas *Dalbergia Nigra* has vivid sunset colors of black, green, orange, brown, purple, and red-orange tints, the stump rosewood is more uniformly reddish-orange-brown.

Also, because the stumps will have been the lowest part of the tree, and under compression from the weight of the tree above it, much of this wood is wavy, curvy, and crazy-grained -- and therefore comparatively dimensionally unstable.

The straighter-grained tree trunks that grew above the stumps were cut down decades ago. As a matter of aesthetic preference, American customers are drawn to the wild and crazy grain in wood; Japanese customers are drawn to the spare, straight-grained look -- such as they have learned to appreciate in their legendary rock gardens.

*Interestingly, no one I've spoken with knows what species the stumpwood is. Allied Lutherie, a prominent supplier which used to sell it, got in touch with the Madison Forest Products Lab in order to find out exactly what they were selling; the lab's reply was that they could tell that it was a *Dalbergia*, but not more than that. In order to find a tree's taxonomic niche, they said, they needed to see the trees' nuts, leaves, bark, etc.; of course, none of these were available because the trees had been cut down decades ago. To further obscure the issue, the lab reported that stemwood in general has different morphological qualities than stumpwood; since the stemwood in this instance disappeared when the trees were cut down, proper identification became even less likely.



Even more of late, a third species of Brazilian rosewood, *Dalbergia Spruceana* -- which species can be identified because there are still standing trees available to study -- has been being logged and imported from farther up North. While *Dalbergia Spruceana* can be as live as *Dalbergia Nigra*, to the eye it looks comparatively waxy, pale, and less appealing.

The soils of Brazil have generously yielded their riches to many exploiters over the years; besides the rosewoods from Rio, Bahia and Minas Gerais, the state of Pernambuco (at Brazil's Eastern tip) is of course famous for having given the violin world the exotic wood of that name, and which is so prized for the making of the best violin bows.



Fifth, There is one new supply of *Dalbergia Nigra* that has been entering the market of late -- along with an equally "new" supply of the other Brazilian rosewoods, of course: it is from reclaimed timbers from old buildings, dams, and other structures. Recycling these woods has become quite a thriving and competitive business, actually. Contractors bid on demolition jobs and the winner gets to dismantle the structure and sell off the timbers, flooring, beams, etc. These are all legitimate pre-Cites woods, so as long as one has the requisite demolition permits it's not illegal to own them.

In cases of doubt, these old timbers are subject to modern carbon-dating, which will give an approximate time of when the tree died. Nonetheless, all of this timber has been in old and abandoned buildings for decades now in any event, so questions about its age are technicalities that are probably most useful toward stopping poachers from "laundering" more recently felled -- and therefore illegal -- timbers.

The fly in the ointment is that while it is not illegal to own these materials, it is -- thanks to the CITES and LACEY acts -- illegal to ship them across national boundaries without permits.



This is a whole other can of worms. Because there is potentially so much money involved (i.e., high demand with limited supply), the processes for applying and being given permits are complicated, expensive, and not a little corrupt -- and there are controversies and confusions as to which sets of documents are actually legal, and which are not. As I said, there's money to be made here.

Sicth, I mentioned that *Dalbergia Nigra* used to grow in a specific region of Brazil whose climate and soil would have been simpatico to that species of tree, but that its habitat has been converted to farmland and destroyed.

The phrase "its habitat has been destroyed" means that *Dalbergia Nigra* cannot ever grow there again -- regardless of what efforts were to be made to grow it under plantation (i.e., safeguarded from poachers) conditions. The ecology that made life possible for these trees is gone. Therefore the supply is limited, as I said above, to whatever hoards have been kept in warehouses, as well as in the recycled timbers business.

I want to give you an idea of what "its habitat has been destroyed" means. I lived in South American from 1966 to 1968, and in 1967 I

places, it became a moving wetlands the width of Connecticut.

That landscape is pretty much gone; what isn't yet gone will be gone soon. The significance of this is that the climate in that part of the world -- and the rest of the world along with it -- is permanently changed. As continent-sized patterns and amounts of water-evaporation change, so do continent-sized patterns of wind movement. Such changes in the cycling and recycling of airborne moisture also means changes in patterns and amounts of rainfall . . . and temperature . . . and humidity . . . and climate in general.

The Amazon basin has recently -- for the first time in its history -- been experiencing droughts. The Amazon river's levels are down. The water level of the Marañon river (which joins with the waters of the Huallaga to form the Amazon) is down by fifteen feet. Navigation and fishing is made impossible. As the forest has been clear-cut, water runoff patterns will have changed as well; when there is water runoff, erosion of the soil follows such conditions; when there is no water, the soil dries out. With the wholesale arrival of farming and cattle ranching the pH of the soil will of course also have been altered -- by the use of chemicals, the presence of new waste products, and the absence of the old ones. Not least, the

took a trip through Brazil. I flew from Rio de Janeiro to Manaus, across the length of Brazil and over the Amazon forest, in a four-propeller passenger plane. The flight took eight hours and covered a distance roughly equivalent to a trip from San Francisco to Boston. And all that time, we flew over a solid and uninterrupted carpet of green forest below. That's right: eight steady hours of green forest. The plane also flew over vast stretches -- miles and miles wide -- of the Amazon river itself: the land is flat, and the river was plentiful and, lacking banks in many

Amazon basin's ecology of wildlife -- animals, birds, fishes, insects, and probably even bacteria -- life will have been disappearing as well. On top of it all, new plants will of course have been brought in with the new population and its agriculture, and they will have further





degraded the original environment . . . and so on. Needless to say, losing a forest almost the size of the United States has implications for the planet's capacity to retrieve and store carbon dioxide and replenish oxygen -- which is what trees do. Dalbergia Nigra is not going to make a comeback, even with plantations set up here or there, any more than having a few polar bears in zoos constitutes the polar bear's making a comeback.

Seventh, obviously, the mention of Brazilian rosewood brings complicated matters into any discussion; in this instance, it touches on world climate change. The Amazon basin has been the world's largest wetlands ever, bar none -- and within my lifetime what has been a VAST forest has been converted to farmland the size of Western-plus-part-of-Eastern Europe. [The land mass of Europe as a whole is 3.9 million square miles -- but, formally speaking, that includes part of Russia; the "line" that divides Europe from Asia includes part of Russia. Look it up in Wikipedia.]

**"I do love Dalbergia Nigra
-- as only a woodworker
can."**

Finally, as I said, I do love Dalbergia Nigra -- as only a woodworker can. I am sorry that I have been part of the demand that has helped to eradicate its habitat. Yet, the use of this marvelous wood is in part responsible for how good my guitars sound. And I haven't used up comparatively much of this wonderful wood; my lifetime use of it amounts to about one cubic meter's worth. Those of us who work with it know how acoustically live it is: you can pick a piece of it up and tap it, and it will ring like a gong, a bell, a marimba, or a crystal glass. They used to make marimbas out of it, as a matter of fact: this wood *sings*.



Thanks for the insight- word on the street is that you're happy with Wenge too? Any other alternative woods you find to have potential?

I've written at length previously about how Brazilian rosewood, that traditional "Holy Grail" of fine guitar making woods, is getting scarce, expensive, and -- with legislation such as the Lacey Act coming to the fore in recent years -- problematic to have unless one has the legal paperwork to show its age, provenance, and legality to be allowed to cross borders.

Therefore, in view of severe restrictions in supply and use of traditional guitar making woods, suppliers to the guitar making industry are offering new, supposedly more sustainable guitar making woods that no one had heard of ten years ago, that come from countries that half of us cannot find on the map -- or, in the case of the Holy Grail wood, woods that are legitimate rosewoods also harvested in Brazil that are marketed as substitutes for the traditional *Dalbergia Nigra*.

I might add -- as I didn't previously -- that East Indian rosewood (*Dalbergia Latifolia*) has been a popular guitar making wood since the

beginning even though it gets precious little press in spite of its being a perfectly good guitar making wood. In any event, all of these new woods that are getting commercial mention are, of course, marketed as being desirable and adequate substitutes (availability, good grain, figure, color, dimensional stability, price, etc.) for the traditional materials.

In my view, some are and some aren't. As a guitar maker, my own preferences are for woods that are "live" rather than not, regardless of their grain, figure or color. The soundbox is, after all, a sound producer and you'd think that it would do better if you filled the tank with high octane, if I can make that analogy.

Forgive me for repeating some things that I've already mentioned, but what these things mean in practical terms is that one will be able to get a live and musical tone from a particular slice or chunk of wood when one taps on it. Some woods can make sound on the order of thummmmmmmmm or thimmmmmmmmm, or ginnnnnnnnng, or gonnnnnnng, or pinnnnnnnng, or ponnnnnnnng (I think you get the idea) with bell-like sustain; others go "thwick", "dunk", "thwack", or "thud".



These sounds are onomatopoeic. This is when a word replicates something of the very sound that it's identifying. Onomatopoeia is useful, in spite of the fact that if one overuses it one sounds like a six-year old. But in fact, many "sound" words such as boom, crack, boing, thud, tap, ding-dong, smack, roar, clink, thump, clang, whap, bam, zip, moo, ruffle, oink, spank, swish, growl, tinkle, cock-a-doodle-doo, crash, squish, ack-ack, clunk, zap, snort, gulp, bip, gasp, ring, shuffle, and thud are onomatopoeic.

Try reading this list out loud: it'll remind you of someone falling down a long flight of stairs and hitting some pets along the way. As far as having a discussion about something like music goes, the nouns and onomatopoeics are fairly straightforward; it's the adjectives for sound (smooth, liquid, smoky, complex, transparent, rough, golden, dark, even, cloying, colorful, dull, transient, fruity, present, sweet, sharp, mellow, full-bodied, dry, light, airy, impressive, etc.), that get us into the most trouble.

I mean, the reason some woods are called tonewoods is because they literally produce a musical note. And this quality, when used to make a guitar soundbox, will make a better and more acoustically active guitar than if using wood that makes some kind of thud or thunk when sounded. The latter are fine for making furniture.

On the other hand, if dull-sounding woods are going to be chosen, then it might well be for reasons of the visuals instead of the acoustics. There are "live" woods that look rather plain, and there are "dead" woods that look like the Sports Illustrated magazine Swimsuit Issue in 3-D.

The flash and beauty of the latter kind of wood have an obvious appeal and many guitars get made because their visual gorgeousness will be a strong selling point. Otherwise, whenever considerations of tone and appearance vie for customers and heated discussions about

the good points of this or that combination of materials occur, a variety of woods will always be brought out as being “as good as”, “acoustically responsive”, “high quality”, “surprisingly good”, “improved by patented methods of treatment”, “a comparable alternative”, “now used by the so-and-so factory in their higher end guitars”, and so on.

My own searches have brought me to several relatively unknown woods of surprising liveness. The first of these is wenge (pronounced when-gay). It's a dark, purplish-brown colored African hardwood that has long been used by bowl turners and cabinet/furniture makers.

For some reason, no one seems to have thought about using it for guitars yet -- so it's relatively cheap (as soon as something comes to the buying public's notice the price goes

up; and with guitar making woods sometimes dramatically). The thing that appeals to me about wenge is that it is very live. That is, when you hold a piece of it up and tap on it -- i.e., if you're holding it in such a way that you're not damping any of its vibrational modes -- it'll ring like a piece of glass, plate of steel, or a crystal brandy snifter.

This quality is known as “vitreousness”, which literally means “glasslike-ness”. And wenge will make such a sound. The second likely candidate is Padauk (usually pronounced pa-duke, although I can't figure out how that happened). Let me tell you about these woods.

Wenge's and padauk's vitreousness is a function of these woods' being brittle on the level of its cellular structure. In fact, it's that very brittleness that makes the vibrational action, and the sound that this produces, possible.



The brittleness that is a plus for sound has a mechanical downside, of sorts, in that the wood cracks easily if it's mishandled (just as glass does), and it gives one splinters if one is careless with it. It can also take more patience to bend, because brittle woods don't want to bend easily. I repeat, however, that it is this very potential for cracking that puts wenge and padauk in the same category as that most prized of traditional guitar making woods, Brazilian rosewood. Lovely, alluring, and live though this "holy grail" wood is, it has also earned a reputation for being subject to cracking.

Sound vs. fragility: it's a tradeoff for which there are few solutions so long as one wishes to use that material -- and the solutions involve (1) overbuilding so as to minimize fragility -- which comes at the expense of tonal response -- or (2) mindful treatment and care in the making, in the handling, and in the using. The former gives you structural stability and less sound; the latter gives you structural fragility and much more sound.

Padauk is a beautiful red hardwood that has long ago been discovered by cabinetmakers. Its proper name is Andaman padauk, as it grows only on the Andaman islands that lie halfway between India and Malaysia in the Indian Ocean. Padauk is, in fact, the islands' only resource of any commercial interest and it has an interesting history.

Years ago, when England had a worldwide empire, the British established a penal colony on these sweltering tropical islands whose sole work was the logging and harvesting of this special wood. Commercial logging of padauk is no longer done with convict labor, but it's hard for me to see a plank of this lovely material without thinking of the poor creatures who were once forced to sweat out their lives in cutting it.

Also, it makes me think that other woods we use must have interesting stories behind them, too. The Andaman Islands have left a small





footnote in literature as well as in woodwork, in that the villain in Arthur Conan Doyle's Sherlock Holmes story *The Sign Of The Four* was an Andaman Island native; in proper colonial fashion, he was described by the author as being savage, brutish, short, and ugly. I've found padauk to be a bit easier to work than wenge. But be that all as it may, these are both woods that one can build a better-than-average sounding guitar with if one uses them intelligently.

Now for the bad news. While it's all good and fine for me to tell you which woods I like and that the acoustic properties of a given wood might make it a joy for a guitar maker to work with, marketing any new wood can be tricky. No one will have heard of it, much less had experience with it; the buying public will be suspicious of, and resistant to, accepting it. It's a bit of an uphill slog until it "catches on".

This has certainly been my experience. I've made a few padauk guitars and am at the moment working on my sixth wenge one. As I said: they're wonderfully live; but most of my customers still want Brazilian rosewood. There's nothing wrong with that; but wenge and padauk a really good alternative for anyone who is willing to be open-minded. And they bypass the problems of the cost of Brazilian rosewood.

Finally, I should mention that making successful guitars using wenge or padauk, or any other suitable wood for the back and sides, will not be as much of an impediment to younger guitar makers who are still establishing their reputations and their styles as it is for someone like me.

I repeat: they're good woods, needing only a good advertising campaign behind them. But it is the more established guitar makers such as myself who, already having reputations for using this wood or that wood, or having a certain by-now-familiar style or feature associated with their work, who meet the greatest resistance to anything new. In my case, everybody wants me to make the same things for them that I've been making for my other clients; the traditional woods and designs, after all, have their good track records.

An example of this factor would be that I'd expect to have a hard time selling a guitar (that I made) that looked like Grit Laskin's work, well executed though it might be; why would anyone buy a Laskin knock-off from me when they can get an original from him? And I'd expect Mr. Laskin to have an equally hard time selling a guitar that looked like my work; why would anyone buy a Somogyi knock-off when they can get an original from me? Just so with woods and other departures from our norms.





“choices of top and back wood are the most important ones”



But back and sides only play a part in generating tone- what about top woods?

Well, the top woods play the other part. Just kidding. I know you'd want a longer answer; but I was just reading one of Alan Dundes' books on the humor and folklore of Eastern Europe. One of the ones that appealed to me was the following one, which prompted my above answer:

Two Bulgarian men are talking. One asks, "is it true that half the Communist Party Presidium's members are idiots?" The other replies, "No, not at all. Half the Communist Party Presidium's members are NOT idiots".

Anyway, I got a chuckle out of that. But, back to the more mundane topic of guitar top woods. I don't think I can answer this question quickly. I might add that I address this topic in detail in several chapters of my book *The Responsive Guitar*. Some of you reading this might want to get a copy of it of your own (it's available through my website, www.esomogyi.com).

Let's start with the fact that behind everything that has ever been said or written about the guitar, it is at bottom, nothing more than an air pump. As such, the air pumping efficiency of its design and materials is the single most important practical factor a maker needs to consider in his work. (Harry Fleishman makes a point of this in his article in issue #4 of *Guitar Bench*.) Everything else -- the guitar's history, its design aesthetic, its ornamentation, the romance, the art, the science, the techniques of its construction, the expensiveness of its materials, the fame of its makers, its commercial price or even its mystical allure -- is secondary.

Structurally, the guitar consists of a vibrating top and a vibrating back that are separated by a set of non-vibrating sides, and a non-sound-producing neck. Because the top and the back are the two most acoustically active parts of the guitar, the choices of top and back wood are the most important ones to be made in the selection of the guitar's tonewoods.



Technically, tonewoods are simply woods that are sliced thin in order to be used for making soundboxes -- even if/when in other forms they can be useful for making other things such as buildings, boomerangs, boats, picture frames, or furniture. Some woods are really better than others for making sound, though, and the best selections are generally agreed to be the quartersawn and straight-grained ones.

Some tonewoods can ring like a bell or a piece of glass when you strike them -- a topic I've already addressed in two other questions you've sent to me to discuss. In the scientific literature this "liveness" is identified as a wood's "Q" which, amazingly, is shorthand for the word "Quality". A high "Q" equals a high degree of liveness.

Because of the dynamics of the guitar, tonewoods for faces need to have different properties than tonewoods for backs if the instrument is to have the best and most even sound (i.e. having consistent quality and volume from lows to highs).

The best guitar faces are made of stiff and lightweight softwoods such as spruce and cedar. Topwoods need to be lighter in weight than body woods because physical lightness is a help to the kind of responsivity that, when under direct string load, has the requisite dynamic range. The best guitar backs are made of denser, heavier woods such as rosewood, ebony, maple, walnut, koa, mahogany or any of a number of other suitable body woods: body woods need to be harder than face woods partly because this makes them more durable, and partly because denser woods contribute those resonances that best complement the pitch of the top.

While straight-grained and quartersawn wood is the stiffest, stablest and preferred choice for both tops and backs, the use of figured woods for backs has an undeniable visual appeal. The tradeoff is that while slab-cut, wavy-grained or figured wood will look interesting and beautiful, it will be more likely to shrink, warp, cup, twist and check than plain, straight-grained wood.

How does one choose tone woods? Well, it depends on what the guitar is expected to sound like and how the face and back are expected to behave. Today, European or Sitka spruce is the preferred choice of topwood for steel string guitars, and rosewood for the back and sides -- with alternatives such as koa, maple, and other domestics coming in a close second. These, as well as the following descriptions, are rules of thumb dependent on "proper" selection of woods that in many species show significant innate variability from one sample to the next.



European and sitka spruce

As far as face woods go European spruce is, by virtue of its cellular structure, more brittle than Sitka spruce: it cracks and splinters somewhat easily when sufficiently bent or stressed. Sitka spruce, in comparison, has superior tensile strength: it will bend a lot before it breaks. Because of these qualities ships' masts and airplane wings -- which need to put up with lots of stresses -- have been made of Sitka spruce. Before the advent of space-age materials, its stiffness-to-weight/density ratio, combined with its suppleness, even made it useful for making airplane fuselages. On the other hand, European spruce isn't used for airplane parts: they would be too brittle and snap from hard use.

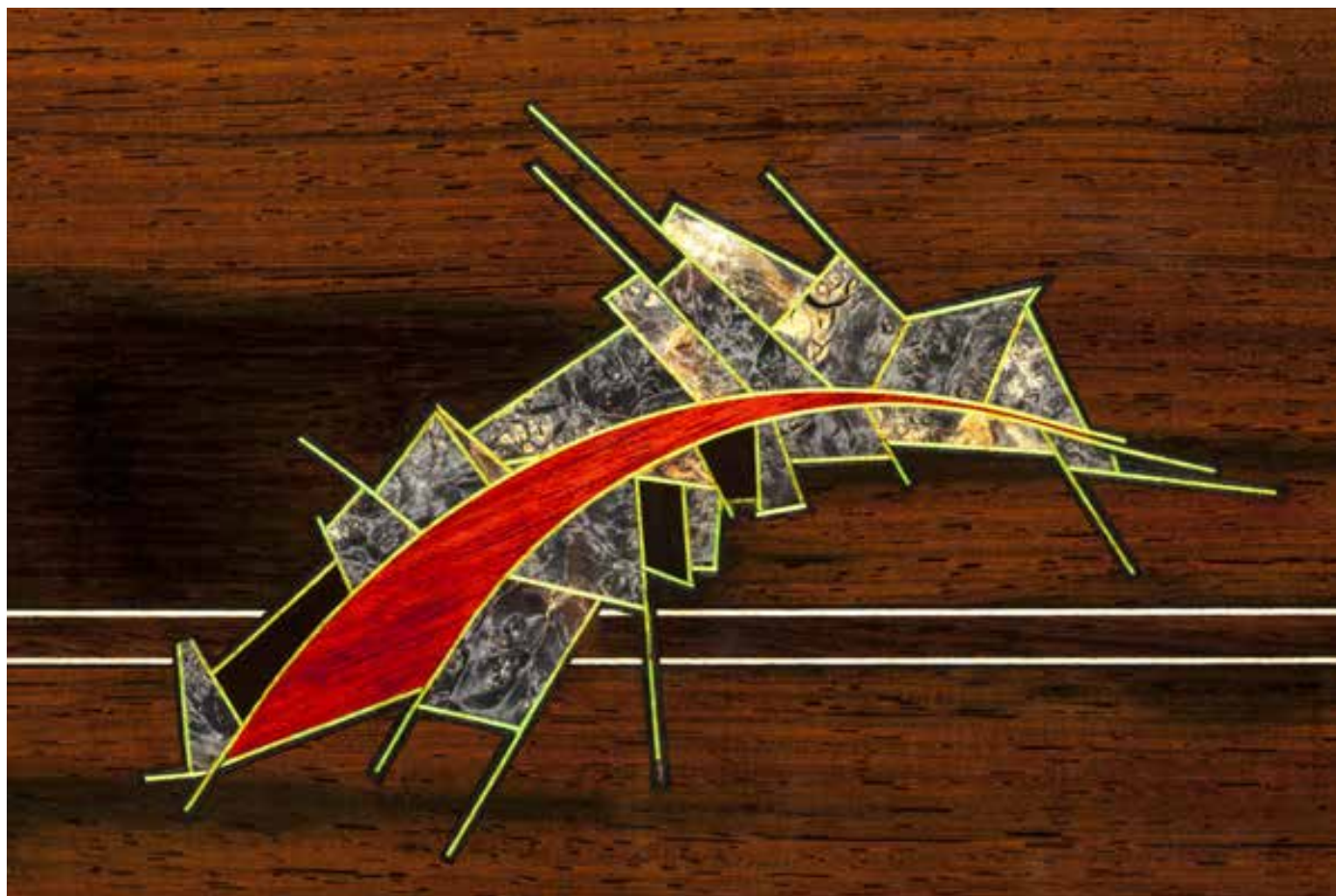
Nonetheless, this same internal brittleness gives European spruce the capacity to make a particular kind of sound when it is made into a guitar face; it's a sound that is at its best exquisitely limpid, rich in overtones, focused, and full of nuance and tone color.

Fingerpickers tend to like this sound (especially when they play slowly) because it's a little like having a choir of singing voices inside their guitars, or like listening to the clear fundamental and harmonics of a church bell. Because of the limpid clarity of these notes, this sound is experienced as being a bit on the cold side.

In comparison, Sitka spruce is supple and springy (in a ropy way) rather than brittle, as a function of its cellular structure. Because of these qualities, when it is made into guitar tops it makes a sound that is not as much in focus as that of European spruce.

For this reason Sitka spruce's sound is heard not so much as being crisply defined, but rather as softer and fuzzier around the edges: its presence is warmer, rounder, more fundamental, and largely free of overtones. It's a very pleasing and solid sound which bluegrass flatpickers and folk musicians tend to like a lot.





Engelmann Spruce

Engelmann spruce has been brought into instrument making in the last few years, and is different from the above woods in several characteristic ways. First, it is very white; when fresh cut it is the color of typing paper.

European spruce is white at first, but oxidizes and darkens over time so that after ten or so years a European spruce guitar face takes on a lovely, warm and golden honey color that imbues it with a naturally aged look. If repair work needs to be done on such a face and the repairman sands some of this wood off it reveals a lighter color which won't match the surrounding surface and needs tinting.

Engelmann spruce seems to have slower oxidation, and, in my experience, stays white much longer; and, when aged, it seems to take on a more brown/tan than golden hue.

A second and much more important difference, though, is in the nature of its cellular structure.

Sitka and European spruce and cedars tend to have dark grain lines that are hard; that is, they are areas of dense cellulose concentration. It is precisely this cellulose concentration which gives softwoods their longitudinal stiffness and vitreousness: the white grain lines in between are mostly thin walled cells full of air (think Styrofoam), but it's the dark material that does the real work.

Much Engelmann spruce seems to have dark grain that is less differentially concentrated from its own white grain. That is, it's not all that much harder (or darker) a material than the white grain next to it; that is why its visual appearance is so uniformly white.

You can test its hardness out yourself next time you're in a position to compare these woods: dig your thumbnail into a few grain lines to see how relatively undifferentiated the light and dark grain lines feel.

Or run an Exacto blade across an inch of grain in some non-essential corners and listen to



the sound the blade makes. With Sitka and European spruce the sound of the blade hitting the hard grain lines makes a r-rrrripping sound that's a bit like a stick being raked across a picket fence; with Engelmann this sound is less audible, and sometimes it will cut quietly, like hard butter with grains of sand in it.

The differences between these woods are pretty obvious when looked at like this. In consequence, because the concentration of linear "cellulose rebar" is typically less in Engelmann than in Sitka or European spruce, it is to that extent a softer and weaker wood.

That doesn't necessarily mean that it's a bad wood, but it does mean that it has to be worked differently than the other spruces. There are exceptions to this, of course, and some samples of Engelmann compare favorably in cellulose structure to European and Sitka spruce. But, on average, these are their characteristic differences.

Cedar

As a vibrating material, cedar sometimes has a better stiffness-to-weight/density ratio than spruce. Because it can be so lightweight, the sound it makes can be on the quick and loud side. Being so immediate, it comes across as a brighter and sharper sound than that of spruce -- but without the limpid overtone component of well-chosen European spruce. The cellular structure of cedar is somewhat weaker than that of spruce and it is more subject to cracking and fracturing: one needs to be a bit more careful in the care and handling of a cedar top guitar than a spruce one.

While it is known that spruces take a while to "play in", common wisdom about cedar is that it appears to have a quicker play-in time. That is, the sound of spruce will change and mellow over time, but the sound of a cedar-topped guitar when new is much closer to what it will be five years down the line. I don't know why this should be so, and I'm insufficiently experienced in the use of cedar to comment further.

Rosewood

Rosewoods are more consistent from sample to sample than spruces and cedars and one piece will be much more like another in behavior, if not appearance. Of the rosewoods used in guitar making, Brazilian rosewood (*dalbergia nigra*) has traditionally been the wood of choice for backs. This is partly due to tradition and partly due to its phenomenal “Q”, which makes it a very acoustically live material.

When struck, a properly aged sample rings like a plate of glass, regardless of whether it's quarter sawn or slab cut. This quality contributes to sustain and projection in a guitar; sustain because anything that rings sustainingly will promote a lasting sound better than something that just goes thud, and projection because this is one of the chief functions of the back. In brief, the guitar's projection is a function of how the vibrating activity of the back is coupled to that of the face, and a proper matching of such activity boosts the directional power of the guitar.



But otherwise, because of its high “Q”, Brazilian rosewood is both vitreous and brittle, and therefore prone to cracking and checking.

East Indian rosewood (*dalbergia latifolia*, the most popular alternate wood of choice) is comparable to Brazilian rosewood but simply not as beautiful nor as “live”, by a factor of some 20% to 30%. This is not a huge difference, and there are plenty of excellent sounding East Indian rosewood guitars around. Also, East Indian rosewood is an attractive choice because it is much less prone to cracking and therefore generally less problematic to work with.

Other rosewood-like woods which have a high “Q” are wenge and padauk (both of which crack very easily) and certain Asian, African and Central American rosewoods which do not have the beauty of the Brazilian or East Indian species. While I haven’t worked with all these woods I’d expect them all to be brittle in direct proportion to their liveness and be prone to the same mechanical failures. Removing their brittleness would in fact remove the factor that is responsible for their characteristic tonal superiority.

Mahogany and koa

Mahoganies and Koa are highly variable in physical properties, within their species. That is, whereas one piece of rosewood is much like another in this regard, these woods range from light to dense and stiff to loose, while all looking the same.

Accordingly, they will behave differently as they exhibit different degrees of “Q”, and a guitar’s sound will be colored by the specific selection of koa or mahogany used. The denser and more brittle the wood, the more it will ring; the lighter and looser the wood is, the more it will be an acoustically mellow-to-neutral tonal influence on the guitar.

Heavy koa, mahogany and walnut are all comparable in their tone. But, because of their great natural variability, to only say that this or that guitar is made from any one of these woods is not, frankly, very meaningful outside of its being a marketing tool.





Maple

Western broadleaf maples typically have a low “Q” and tend to make passive backs in that they don’t ring, sustain, or further the vibrational activity of the face. In fact, they help to absorb the vibrational energies of the face and kill them. From a fingerpicker’s point of view, a maple guitar will sound thinner and less lushly full than an identically constructed one made of rosewood.

As an extreme example, consider the sound you’d get in tapping a guitar back made of stiff cardboard. This is not necessarily a bad thing, however. Besides being beautiful, maples help to create a sound which is comparatively damped and short-lived and which is perfect for jazz style and even bluegrass playing, in spite of the fact that the use of mahogany has long been associated with that kind of guitar.

The bluegrass guitar is best when its sound is punchy rather than sustained and mellow. Jazz musicians will play runs of individual notes

and the music is such that it is not desirable for any of the notes to linger in the air. In both, one wants quick notes that come out and then disappear -- because there are more notes coming. The sustain of something like Brazilian rosewood is not needed.

This quick quality is also desirable for certain parts of the modern classical guitar repertoire, which has at this point somewhat abandoned the lush, dark and expressive tonalities so much appreciated by fans of the Romantic classical repertoire.

European and Eastern rock maples are denser and more live than the Western varieties, which fact introduces yet another variable into the uses of this wood. There are exceptions to all these statements; but, as rules of thumb, these descriptions are accurate. Lamentably, classical guitar players are, on the whole and for better or worse, markedly unreceptive to guitars made out of any woods other than rosewood.



Spanish cypress

“Spanish” cypress is the traditional wood of choice for flamenco guitars. It’s a formerly cheap and plentifully available Mediterranean wood which is wonderfully aromatic and easy to work. For much of the Spanish guitar’s early life this cypress was the poor man’s wood for backs and sides; it was the most common default material for anyone who could not afford the more expensive rosewood.

For all its humble origins, though, and in spite of its comparative lack of density, properly cut and selected Spanish Cypress has a “Q” comparable to that of East Indian rosewood and a much better one than maple.

Even though it isn’t used for making steel string guitars, I know of no reason at all (other than that it’s hard to find pieces big enough) why it wouldn’t work very well on them.

Full moon wood

There is one other wood to add to this list. I want to preface telling you about it by saying that my own approach to the selection of the topwoods for my guitars relies on a favorable stiffness-to-weight ratio, rather than on things like grain evenness, count, or color. The wood’s weight is critical to me: it’s half the formula.

I’ve sorted through many thousands of topwood sets in the last forty-plus years and the range of their densities has never failed to impress me. The same has also been true of the many piles of spruce and cedar planks

I’ve sorted through and made selections from. I’d handle planks that were so heavy that they seemed fresh-felled and still full of water; they’d be next to planks that were so light that you could sneeze and they’d practically blow off the pile. These woods were of comparable size and had been kiln-dried together, so the moisture content would have been the same or similar.

I'd always assumed that this disparity was all normal and natural -- until I learned about a European tradition of forestry that is based in the practice of cutting down woods at specific phases of the moon; it yields woods of consistently different density, durability, and working properties.

I became aware of this material through a well-researched and documented article written by Ernst Zurcher, a Swiss forestry expert who has written extensively on this fascinating topic. (Zurcher's article is titled "Lunar rhythms in forestry traditions: lunar-correlated phenomena in tree biology and wood properties". He wrote it for Wood Sciences magazine, HG F.21.

Zurcher's name is sometimes spelled Zuercher and, as I said, he has written extensively on this fascinating topic.







Zurcher's article jolted me with an unsuspected explanation for the variation in wood mass that I'd long noticed. That explanation turned out to be news only to me, however; since reading that article I've discovered that there are lots of people who know about such wood and have known about it long before I did.

Wood that is felled in accordance with lunar cycles is referred to as "Full Moon Wood". Somehow, I'm tempted to think of it as werewood. Perhaps I've seen too many Boris Karloff movies. But, whatever one wants to call it, the fact is that our own modern traditions of lumber-cutting -- which are not at all based in cutting woods selectively, in limited quantities, and for specific uses -- have paid no attention to this practice.

Our commercial enterprises will cut day and night until the acreage has been clear-cut, take the wood away by the industrial container-full, and then move on to the next acreage regardless of the day, week, month, rain or shine, or phase of moon.

Yet, in traditional and less-than-industrial-scale logging work, there is a practice of wood-felling with an eye on the phases of the moon that is based in many centuries of empirical experience and observation.

Full Moon Wood has an interesting history. Foresters since before the time of Christ have noticed that woods and plant products of a given species that are cut during the new moon, the full moon, or the waning moon, have consistently and predictably different working properties, characteristics, and durability.

Therefore a number of especially advantageous uses for timber -- including, naturally, musical instrument soundboards -- have been correlated, through long practical experience, with specific felling dates. If you're interested, guitar soundboards from such woods are available to luthiers from Swiss suppliers that can be found through a google search under "full moon wood".



Some readers may think that this kind of lore is sheer poppycock. Nonetheless, Mr. Zurcher points out three things that are hard to ignore. First, as I've already said, the body of empirically collected wood-felling wisdom is very old and it applies to a range of practical wood uses as diverse as house construction, roof shingles, wooden chimneys (well, they had them in the old days), barrels for storing liquids, boxes for storing foodstuffs, fuel (firewood), plows, transportation of felled woods via river floatation, and of course musical instrument soundboards.

In each case woods felled at the appropriate phase of the lunar cycle last longer, wear better, are more stable, are harder/stiffer or softer/more pliable, or is more fire resistant or burns more easily -- as their intended use requires. Second, while the knowledge gotten through centuries of hands-on forestry practices has necessarily resulted in a body of oral tradition, peasant wisdom, and folklore, there exists in addition a significant body of historical writing

and record-keeping in which lunar rhythms (as well as the cycles of the seasons) are mentioned as having an influence on the growth, structures, characteristics, and properties of plants.

One of the earliest of these is from the Roman writer Pliny who had, in addition to suggestions about the cutting of plants, further advice to give to farmers for picking fruit for the market vs. fruit for their own stores -- all with respect to different phases of the moon.

It has long been known, for instance, that fruit picked for the market will weigh more and be more profitable to sell, when picked just before or at the full moon; but for stocking the larder and pantry, fruit picked during the new moon would contain less water and last longer.

As far as practical advice goes, what could be more useful than this? If fruits and vegetables show such properties in tandem with the phases of the moon, then it really shouldn't



be hard to believe that the plants and trees that these edibles are attached to, and grow from, must also be being affected by the same lunar processes.

[Note: The practice of paying attention to the felling date of a wood has also included the moon's cycles of height-trajectory with respect to the earth's horizon, as well as which sign of the Zodiac was dominant at the time. Wood-cutting practices in places as diverse as Bhutan and Mali follow these "rules". No, I'm not making this up; read the article.]

Third, while Pliny and some of the other historical sources are of course European, it has been noted that the general rules for felling woods in Europe are in fact very similar across the other continents.

Whether in the European Alpine regions, the Near East, in Africa, India, Ceylon, Brazil, or Guyana, these traditions all seem to be based in matching and independent observations. It is entirely reasonable to believe that, in the past, people everywhere had more time and more peace and quiet in which to observe how things work; indeed, such knowledge would have been vital to them.

More to the point, the variations in wood density that I've mentioned noticing make sense within the context of modern vs. the traditional and more leisurely wood felling practices. Today, as I said above, loggers will work a forest, stand, or acreage relentlessly and indiscriminately until their quota is met. The job might take weeks or months.



And then, leaving a denuded hillside, they'll move on to another patch of land and do the same. Selectivity is per acreage and tonnage, set by commercial considerations and not per specific intended use of the wood harvest. This contrasts sharply with the traditional selectivity that would have been the rule in any aware, non-industrial community of foresters: you go in and select a limited amount of wood to be used for specific purposes; you don't cut indiscriminately and ship out by the lumber-truckfull. You take what you need, until the next trip into the forest.

It's easy to understand that these different mindsets would have quite different contextual, environmental, meteorological, commercial, ancillary, and/or scheduling concerns. We moderns are too caught up with television dramas, production quotas, the rising prices

of everything, and the latest bodice-ripping revelations that emerge from Washington, Rome, Moscow, Damascus, Beijing, or Hollywood to notice how things grow.

Celebrity wood and exotics

Well, we've covered all the usual guitar topwood suspects; but from time to time a new wood surfaces that captures everyone's imagination as being "superior" in one way or another.

It might stem from some prominent guitar maker's successful experimentation with a new species and the word getting around; or it might stem from a commercial supplier's promoting of a new wood that's become available on the market; or it might result from something, somehow, catching the popular imagination.

“ from time to time
a new wood surfaces
that captures everyone’s
imagination”

It’s an interesting phenomenon that is part and parcel of the guitar making community’s cyclic attempts to find The Holy Grail. As an example, African Blackwood has emerged as a popular alternative to Brazilian rosewood in the last few years.

It’s heavy, hard to resaw (there seem to have a significant silicate content), and has a semi-muted tap tone, indicating a so-so level of vitreousness or “Q”. As such, as far as I’m concerned, there’s no chance it’s ever going to be the acoustic equivalent of the old growth Brazilian rosewood. Nonetheless, it’s a perfectly adequate wood, and getting quite pricey as demand for it rises.



Likewise, Adirondack and red spruces have been getting a lot of press lately on the strength of their having been the "original" spruces used by the Martin Company. Carpathian spruce, which is much like Adirondack and the red spruces in its appearance and properties, is being imported and sold too.

I sometimes wonder what African or Asian wood will be discovered next year as the answer to my acoustical problems, both those continents being so well known for their long and rich traditions of guitar making.

The fact is that the use of celebrity wood -- that is, simply because it's popular all of a sudden -- is always driven as much by marketing and wishful thinking as by experience and the laws of acoustics. I want to underline the obvious: namely, that one can overbuild or underbuild with celebrity wood as easily as with anything else.

Just using it will not be a guarantee of anything. It would be like believing someone's wife is better than anyone else's because she's, well, say, from France. I once had a man brag to me that he had a Swiss girlfriend, as though that information/label alone ought to have made my jaw drop.

Parenthetically, the corollary to the myth of "the best wood" is the myth of bad wood. The fact is that, within reason [for instance, I wouldn't hold out much hope for balsa wood guitars], there aren't many really "bad" woods: one simply has to know how to work with the materials. Personally, I prefer the stiffest and most lightweight tonewoods woods to work with. But perfectly good guitars have been made with stiff woods, floppy woods, heavy woods, lightweight woods, tightly-grained woods, widely-grained woods, domed woods, flat woods, quartersawn woods, off-quartersawn woods, etc. etc.; you get the idea. It's very largely in what one does with them. In fact, that's what this book is about.

And as far as exotic woods go, keep in mind that one man's exotic is another man's boring domestic product. Today, many American guitar players and makers believe that European spruce is the best guitar top wood. European spruce comes, of course, from Europe. Prominent Swedish luthier Michael Sanden reports that he has great demand for Sitka spruce on his guitars; Sitka spruce is, of course, a Northwestern American and Canadian (and Alaskan) wood, and Sanden's clients consider this wood superior. Each group of end-users considers its preferred wood to be an exotic or an import.



Tonal potential and tone changes over time

It is common knowledge that wooden string instruments -- whether they be pianos, mandolins, lutes, or guitars -- benefit from being "played in". Keep in mind that older instruments have tonal qualities of mellowness and smoothness that newer ones lack, the latter often sounding somewhat brittle and harsh in comparison. The analogy of making a stew is often used to describe the quality of transition of a sound which is initially a bit rough, "green" and unsubtle but which gradually blends its elements into something more integrated and smoothly pleasing.

In the guitar, also, different woods take different amounts of time for getting "played in". Why this is so is not fully known but, obviously, it has to do with changes in the cellular and fibrous structures of the woods over time.

Some of these changes have to do with the adaptation of the woods to the stresses of being strung, after possibly centuries of being unencumbered by such forces. A main physical indicator of these changes is seen in the doming in the area behind the bridge which almost all older guitar tops show, but which new ones won't yet have. Extreme distortion is problematic, but a merely visible



amount of it is absolutely normal and even desirable; in fact, guitars which are so overbuilt (through thicknessing, doming, bracing, etc.) or understrung that this distortion of the wood is prevented, will never manage to have the developed sound every player wants.

Furthermore, the act of actually playing on a guitar, in combination with stringing and stressing it, seems to have a decisive and accelerating effect on this blending; as with muscles, stretching and “warming up” seems to loosen things up significantly. I make my guitars yielding enough to have some top pull-up, and tell my clients to play them a lot for at least the first few weeks.

Finally, all of the woods described above have a certain tonal potential rather than a fixed quantity of tone. That is, they can be worked with to enhance or suppress certain portions of their potential sound.

However, like a plank of wood that can only yield usable pieces shorter than itself when it is cut, and never a longer piece, guitar making woods benefit from the outset only in having the most and best potential tone for their intended use.

You can work with any wood to make it sound a lot worse than its potential; but you can only work with it to make it a little, if any, better. Once you’ve figured out what you want your next guitar to sound like, go out and buy the best wood you can find for it.









But there are other contributors to tone too, like scale length, neck materials.....

Well, outside of the top and the back, which are important vibrating diaphragms, not really. Or at least, not in my opinion: factors such as scale length, neck material, body size, bridge height, fret height, etc. are secondary.

I go into these matters in some detail in my books “The Responsive Guitar” and “Making the Responsive Guitar”, so I might recommend that anyone who is sufficiently interested get these and explore my specific thinking.

At least as important as these secondary factors – and actually more – are choice of strings and playing technique. Different brand, gauge, and/or composition strings can make a significant difference to a guitar’s sound, as these generate sufficiently different dynamic signals, as well as contribute different energy budgets: the result is that a guitar can have different voices.

Playing technique is usually overlooked in these discussions, just as a driver’s driving skills are overlooked in making assessments about the performance of an automobile. It’s no secret that a skilled player can coax an amazing palette of sounds out of the soundbox. Of course, the guitar’s sensitivity to begin with is a factor.

If the soundbox is overbuilt and acoustically constrained then it is not likely to have much flexibility of response: some guitars have such a limited dynamic range that they sound pretty much the same no matter what one does to them.

On the other end of the spectrum is a guitar that is so sensitive to the player’s touch that it becomes unforgiving of sloppiness in technique – because it shouts out every player’s tickle, pluck, and scratch. In between these extremes is a truly responsive guitar with plenty of “head room” and that is like a well-trained horse that responds to the rider’s every subtle inspiration and command.

One additional “contributor” to tone that usually goes unmentioned is a guitar’s tonal directionality – which most guitars have to one degree or another. What I mean by that is that a guitar often projects its sound out more strongly in one direction than another. The consequence of that is that the same guitar can sound quite different depending on where one sits. Therefore, anyone in the market for a better guitar will do well to go shopping for one with a friend, and do listening from different positions.





Speaking of players, I notice that you specifically ask for “ a tracing of your left hand and information about the average seasonal humidity in your area”. Perhaps I could get you to comment about shaping the neck to fit that tracing and how the player’s environment affects the way you build...

It all goes to the playability and stability of the custom-made instrument that I intend to deliver to my client.

Guitars can get made around different primary concerns and priorities. Some of these are the pursuit of sound, or appearance (artistry and customization), or business (efficiency, brand loyalty, and profitability), or experimentation in electronic sounds, or tradition vs. original design. The things you are asking about go to two other concerns.

The guitar, neck and the hand

The first is the fact that the guitar is a physically intimate instrument. As one strums or picks on it one hugs and enfolds it; one literally puts one’s arms around it, and even bends one’s body over it, as it rests on one’s lap. There’s a genuine somatic pleasure in feeling it vibrate

and respond; it’s something like the purring of a cat on one’s lap. At least, this is true of the nylon-string classic and the acoustic steel string guitar, when the player is sitting. The guitar is very much a physically user-friendly instrument and I don’t think one should underestimate the sheer physical pleasure of playing this person-sized pleasure box.

Second, it is also a tool for musicians in which the point of the most meaningful body contact between guitar and player – besides the fit of the guitar’s size to the player’s body – is the contouring and feel of the neck.

And because players’ hands are fully as unique as faces, ears, feet, torsos, and genitals are, the sizing and contouring of the guitar neck can be looked at in the same way that tailoring one’s clothing is regarded: a custom job in each case. In fact, to use a word that’s perfectly correct although in an unusual context, a properly made guitar neck is bespoke.

So: I need to have a sense of the size of my client’s hands, as well as his or her left-hand playing style. I describe these concerns and factors at length in chapters 13 and 26 of my book “The Responsive Guitar – and I’m



including two photos (see above) that a client recently sent me in response to my quest for this information, to give you an idea of what I mean. Such readings on left-hand playing technique are information-rich for anyone experienced in the fine points of lutherie.

Average and seasonal humidity

Concern about fluctuations in seasonal humidity goes to the fact that wood is a hygroscopic material: it takes on and gives off water molecules as the air is moist or dry. Everything made of wood, in fact, swells and shrinks with these normal changes in the weather.

The primary function of any finish is to seal the wood and prevent, or at least minimize, this movement. (When I recommend a thin finish such as French polish to my clients they sometimes comment on how this doesn't protect the guitar from scratches all that well because of its very thinness; I respond that the function of the finish is to protect the instrument against the weather, not the player; and that a thin finish promotes a fuller sound.)

Dimensional instability in wooden objects can lead to damage: look at any tree stump or telephone pole and observe how it will show a mass of cracks from the wood having dried out and shrunk. Many guitars crack for the same reason: being exposed to dry weather – or at least drier conditions than those woods had previously been stabilized at. But whether or not there's been actual damage, the woods will have swelled and shrunk (and may have warped to some degree) with changes in the weather; in the case of the guitar this leads to changes in action and playability.

I became aware of this early on in my career when I was more active as a repairman than a builder, and I was coming into regular contact with musicians who were on tour. They would report to me that their guitars' (and mandolins, etc.) actions would be high in one city, and then low in the next city, which drove them crazy and baffled them. They would of course have been traveling through cities with different climates and altitudes, playing indoors and outdoors, and their wooden instruments would have been responding to those ever-changing environmental conditions.



The rule is this: as woods dry out, they shrink. In the case of the guitar, whether or not there's actual damage the shrinking action is displaced into the sinking-in of the top and back plates (more so than the instrument's simply getting bigger and smaller, that is): action gets lower, and buzzes appear.

Exposing a guitar to a wetter climate, on the other hand, will make it swell up. While there's no damage or cracking when this happens (the wood fibers simply get squeezed together), the dimensional change in the wood is then displaced into the top and back plates bulging out: the action rises.

This is crazy-making for a musician on tour but it's a natural consequence of the fact that wood, unlike metal or plastic and regardless of whether it's new or old or alive or dead, forever has the ability to take on and give off ambient moisture. (Note: there are ways of dealing with this, as I describe in the chapter on wood stability in my book, for anyone wanting more information).

Finally, in order to do my best work, I need to have an idea of the environment that my guitar will be living in once it leaves my shop – both



in geographic and in domestic terms. If the guitar will be living in a drier climate, then I will need to assemble the guitar in a compatible environment, in my humidity controlled room; to not do so will be to invite potential cracking of the woods when the humidity in the guitar owner's area plummets.

And whether or not the seasonal fluctuations are extreme, I will ask about the humidity and temperature conditions of the house and the rooms in which the guitar will be kept. If I cannot make adjustments on my end of it to take some of those factors into account, then I give advice as to how the guitar needs to be treated. It's simply professional to do so.



And is contouring also the driver behind the modified dreadnought shape?

Yes. I designed that guitar in the late 1970s, in response to guitarist Daniel Hecht's request for a guitar that was easier to handle and play than the dreadnought he was then using. There's an interesting story behind this.

Daniel Hecht was one of the Windham Hill guitar players. These guitarists, as a group, pretty much gave birth to the modern fingerpicking guitar style. The Windham Hill label was the midwife to that birth; it brought fingerpicking guitar music to the world's attention.

Up until about 1970 flatpicking had been pretty much the only way to play the steel string guitar, and that technique defined what musicality the steel string guitar was capable of – by far most of which was instrumental mix and/or solo chord accompaniment to singing.

Even the pioneers of playing actual melodies on the guitar (notably Doc Watson, John Fahey, and Clarence White) used a plectrum. All told, fingerpicking style really hadn't been introduced, much less coalesced, as a way of playing melodies on the guitar before

Windham Hill & Co. broke that new ground – and it broke ground in a big way.

Also, until then the steel string guitar – which had been developed for use by musicians who were standing up rather than sitting down (unless they were sitting on a horse, as happened occasionally in the singing cowboy movies of the 1930s and 1940s) – pretty much “was” the dreadnought, both by dominance and by default. For musical use the Dreadnought was typically held up with a shoulder strap, and its actual center of balance was a non-issue. The Windham Hill guitar players, on the other hand, sat when they played – like jazz guitarists were doing – and, along with using their fingers rather than a plectrum to play, these pioneers created new tonalities and melodies with which to enrich the guitar's repertoire.

So . . . Daniel Hecht asked me to make him a guitar that didn't slip and slide around on his lap when he played, the way his shallow-waisted dreadnought did. He needed something that stayed put, and that furthermore took the guitar's center-of-balance into account. While he was making a request out of a musical need, however, it equally came out of a sensible historical context.

Some historical context

While the steel string guitar's older brother, the modern Spanish guitar, had always had a well-defined waist, the dreadnought didn't. It's interesting (at least to me) that in the century and a half since the modern guitar has been around the steel string guitar has increasingly come to adopt that feature of the Spanish guitar, but the latter – which has had every opportunity to reciprocate – has never done so.

In fact, the Spanish guitar's development is opposite to that of the modern steel string guitar in this regard: it grew out of the shallow-waisted earlier Baroque guitars and vihuelas of the seventeenth and eighteenth centuries, and it has never gone back to that design feature.

“ I was seeking a steel string guitar design that would stay on a sitting player's lap without use of a shoulder strap”

I might add that the shapes and sizes of the guitar's body over time are also an expression of the changing nature of musical entertainment in Western society. When musicians played for small audiences they would usually do so in formal settings and they would sit; it's more intimate, and appropriate to chamber music (i.e., music played in rooms rather than outdoors).

With the growth of popular musical entertainment, however, and its drive to gather and cater to larger and larger audiences, the steel string guitar has benefited from becoming larger and larger; and the musician is simply a more visible musical centerpoint if he stands – especially if the audience is standing and is outdoors, as has historically been the case in popular entertainment events of the informal and semi-formal kind. (In formal performances the audience sits, regardless of what kind of music or instrument is being played.)





Daniel Hecht's guitar project

So in the matter of the modified dreadnought project I was seeking a steel string guitar design that would stay on a sitting player's lap without use of a shoulder strap. This suggested a more Spanish-guitar-type waist and, if the instrument was not going to be topheavy, a waist that was located at the guitar's center-of-balance. The guitar also needed to be a dreadnought size. Those mechanical requirements were clear; less obvious were the dynamic and acoustic requirements for good sound, balanced response, and ease of rendering good, clear, recorded sound. But that's not what you're asking about, so I'll leave that discussion for another time.

The modified dreadnought does indeed fit into a dreadnought case. And it sounds good. But I didn't know what to call this guitar: this was at a time before luthiers had been giving exotic-sounding names to their instruments (look in any guitar magazine to find any number of grand and outdoorsy-sounding guitar models).

I therefore went for the simplest thing I could think of: since I was "modifying" the dreadnought, it seemed sensible to call it a "modified dreadnought". That name sounds kind of clunky today, I think – especially as compared to some of the zippy titles people are now using which make you think that what's being talked about is a high-performance car whose natural habitat is some inspirational outdoors setting – but it at least tells you something about what this instrument actually is.

All in all, though, I believe I was breaking new ground by myself, in making that guitar for Daniel Hecht. Until then, luthiers didn't dare to make steel string guitars that were different in shape from the dreadnought. That model absolutely dominated the landscape and stores were unwilling to even take different-looking guitars on consignment because they knew they wouldn't sell. Or at least sell easily. Today, on the other hand, if you go into any guitar store you'll see many variations of guitar shape; it's quite accepted.

Contouring and aesthetics

There's one other thing to mention, which is that I made an effort to re-contour the Hecht guitar in such a way as to make its lines look lovely and flowing. The lines of most Spanish guitars are pleasing, because its makers have brought an organic aesthetic to it. This is lacking entirely in the typical steel string guitar, in which curves of different radii and various flat stretches are "efficiently" thrown together. Overall, this gives them an industrial look.

Oh, I know that a lot of people will claim to love the Martin dreadnought or OM, or the Gibson J-200, or whatever. But I believe that what they really love is *the idea* of such guitars; the guitars themselves look . . . well . . . clunky, awkward, and disproportionate to anyone who actually looks at them.

I do a visual exercise in my annual class in which my students and I do exactly that: we leave brand loyalty at the door and just *look* at some guitars and discuss our impressions. We agree that if met a girl with unlovely body lines like some of those guitars *actually* have we'd think twice about asking her out.



The modified dreadnought isn't the only model you build, I see Om and OO models too- which look more curvaceous, I take it they have been modified too?

Yes, of course. Aside from the aesthetic and ergonomic considerations I've mentioned, the only reason I can see for anyone to faithfully reproduce exact replicas of commercially made guitars is that one likes them sufficiently to do so.



And now I see many of your apprentices with similar models...


I don't quite know what you mean by "similar models". The main models for steel string guitars were set in stone decades ago by the Martin and Gibson factories, and until relatively recently no American luthiers were bold or imaginative enough to make anything but faithful copies of any of those (and if any had been, they would have starved to death: the market was not accepting of variety).

It's only relatively recently that variations of those sizes and shapes have appeared, and even so most steel string guitars are still largely Dreadnought-like, OM-like, Jumbo-like, parlor-guitar-like, etc. Classical guitars, by virtue of their coming out of a different tradition than steel string guitars, show the least variation or departure from traditional design.

I do encourage my apprentices to design their own guitars – within the context of the fact that the market's main points of reference are the industry-standard shapes and sizes I mentioned. They sell. However, in the same way that I don't slavishly copy the "standard" Martin or Gibson models, I encourage my guys to do work of their own within any of these categories. There's less creativity in imitating . . . despite it being, as Oscar Wilde quipped, the sincerest form of flattery to the one whose work is being copied. Naturally, having been influenced by me, my students' work will have similarities to mine. I guess that's what you mean by "similar" models.

Having said what I just did about the various familiar and accepted shapes of guitars, I might add two things. First, when it comes to "customizing" or staking out one's identity as a luthier, the easiest places on the guitar to do that visually are (1) the peghead, (2) the rosette, (3) the bridge, (4) whatever proprietary or unique decorations, woods, inlays, etc. one adorns their instruments with, and (5) the cutaway, if there is one.





If you can come up with something in any or all of these places that are eye-catching and well executed, you're halfway there to establishing your own identity. One can play with these variables in lots of creative ways, and not change the guitar body itself all that much. A lot of people do work on this level.

Second, simultaneously with and in fact superseding the above, "customizing" occurs at a higher level. Here, one concerns one's self with "the overall look" of the guitar. Making specific but piecemeal changes as I just suggested is all good and well; but many of these will look like exactly what they are: something stuck into the middle of someone else's design. So there needs to be an awareness of the harmony of the parts -- and this includes the "frame" for the work: that is, the guitar's body outlines.

There's plenty of room for improvement in/ from the standard models (of steel string guitars) in this regard: they do not appear to have been designed with any sense of the classic rules of proportion that have informed the work of European artists and designers for centuries. The American (i.e. steel string) guitars have an industrial rather than an organic or artistic look; they've never looked graceful to me.

I make an attempt to teach my apprentices to operate at this second, holistic, level of guitar design. I teach them to have regard for the principles of scale, proportion, and flow of line, as well as the rules of visual emphasis: there's a reason that they work. If the colors, proportions, individual touches, and materials in a guitar (or anything else at all, really) are all balanced correctly then it becomes a thing of beauty, in addition to being a utilitarian object.

Maybe I can ask about the soundboard decoration/ carvings you offer, does it significantly alter the physics of the top to the point you make adjustments?

Before commenting on the physics of the top and its artwork, perhaps I could say a bit about the meta-physics of it. I began doing “artistic” work (that is, my decorative carving and similar inlay work) seriously back in the late 1980s. The background to this had to do with the fact that I was going through a divorce, and was feeling pretty demoralized. My work had pretty much also lost meaning for me in this period. I sought out a therapist to help me sort out my logjam of feelings.

Personally, I think it’s a good idea to seek out help when one is feeling unable to cope. I recommend it as a course of action to take, instead of just toughing things out; the tough part will be there anyway, and getting help will NOT make it disappear.

Therapy, when done correctly, is a uniquely intimate experience. Part of a competent therapist’s role is to act as a mirror. The thing is, one is ALWAYS being one’s self; one ALWAYS carries and acts out (of) one’s own attitudes, intelligence, defenses, needs, fears, prejudices, learned roles, blind spots, intolerances, inner conflicts, personal boundaries, and style.

Always. How could it be otherwise? The therapist helps the client to become aware of these things, or at least where they came from and what they’re rooted in, because the client is normally not aware of most of them -- much less how these have contributed to the knots that the client is tied up into, and attempting to untangle.

In this context, if and when the therapist introduces any of his or her own personal material into the therapeutic session, its impact on the mirroring needs to be discussed. It is essential to know who “owns” what, and what belongs where -- and without judgment or criticism.

In my case, my therapist got pregnant. In many therapeutic situations such an event is seismic. The client may re-experience early life feelings of competition, or imminent exclusion or rejection. For some, the feelings of losing the therapist’s affection to the new rival are so strong that they drop out of therapy. In my case, I seem to have adapted (to the obvious fact that my therapist had a life that didn’t include me in it) by wanting to “join” my therapist. I announced that I wanted to give birth to something too.

Two days later I was carving designs into wood, with all the focus and energy of a water buffalo in rut.



The unconscious attitudes and evaluative processes behind this change of direction were, needless to say, massively complicated; they always are, in this kind of thing. But I'm not going to go into that material any further; it would take us far afield from the subject at hand. Suffice it to say that I wouldn't be the same kind of artistic luthier that I am today if my therapist had remained celibate.

But be that all as it may, the decision to release my energies into this new activity was an answer to the problem of how to stay in the therapeutic relationship without feeling . . . uh . . . demoted. In fact, it was also an answer to a whole set of problems that had to do with my inability to figure out what to do with myself, at that time.

Anyway, getting back to your question about my artistic work's impact on a guitar's sound: I consider the guitar's lower bout (the area around the bridge) to be the essential dynamic area, and I won't mess with that. The upper bout is mostly structural rather than dynamic, and is pretty much acoustically dead.

My artistic work is mostly confined to the upper bout, with perhaps a bit of an intrusion below the soundhole -- but if so I try to keep that intrusion minimal. I'll say a bit more about this below.



One way to illustrate the “dynamic” phenomenon I’m talking about is this: next time you have a guitar at hand simply tap on or near the bridge with your fingertip (use the fleshy part, not the nail). You’ll hear a sound, of course. Whatever that sound is, its quality will become more attenuated and constrained as you tap farther and farther from the bridge. In theory, the acoustically “live” area on a steel string guitar extends to the upper transverse brace -- the one that is above the soundhole.

Now, the presence of a big hole in any vibrating diaphragm is bad news for the sound-producing potential of that diaphragm, and especially those parts of it in closest proximity to the hole. So most guitars won’t give you

much sound when you tap them right next to the soundhole (i.e., between the soundhole and the waist). But they’ll give you some. I should add that on really good guitars, tapping at such an unlikely spot will generate a surprising amount of sound. But the bottom line is that, on average, by virtue of the traditional design of the modern steel string guitar, the part of the top that’s next to and above the soundhole is not significantly acoustically active; the lower bout is where all the action is.

My carving work is typically situated in part above the upper transverse brace (and therefore in the dead zone) and also on the fringes of the acoustically most active part of the guitar top, next to the soundhole. I consciously try to



not encroach much lower than the soundhole. But what I do does not entirely kill whatever sound would come from those sections of the guitar top. This is because the carving is “partial” in the sense that it does not result in area that is weakened with lots of perforations. It’s reinforced, so that it’s not radically different in thickness, stiffness, or springiness from adjoining areas.

The footprint of topwood that the carved design occupies is first “thinned out” from the back. Then, after the carving is done in that thinned area, that section is reinforced with a thin colored veneer of wood (which provides visual contrast and “sets off” the carving). That thinned area is then further filled in

with a spruce veneer that re-establishes the full thickness of the top. This three-layered structure enables me to brace the top normally, and at the same time to leave the carved latticework backed up so that (1) it is not ungodly fragile, and (2) it can function as the same kind of unperforated wooden diaphragm that the rest of the top is. Everything considered, I think the loss of dynamic oomph is minimal.

All in all, these processes represent several days of careful work. But I think it’s worth it.





And more recently there have been folks copying your artwork designs?

Not really. My aesthetic is my own, and people seem to like it. But no one is willing to spend as much time on this kind of work as I put into it, or that it requires -- just for the payoff of having something that they've done look like something that I would do. I think most luthiers would prefer their guitars to look like something they would do.

If anything, I'd say that people are instead surprised and inspired by what they see me do and are happy to launch into making something original that is an echo of what I've done. I'm fine with that. I don't believe that we really need a bunch of Somogyi knockoffs . . . in exactly the same way that we don't need a bunch of Martin and Gibson knockoffs, such as people have been producing for decades.

But let's stop a minute and ask what is it, exactly, that I've done that is or might be sensible for someone to copy? Well, within

the context of the fact that the modern steel string guitar is a creature of factory production and therefore, in my opinion, by definition devoid of creative or artistic touches, I've done five not-too-complicated things. I mean, I do execute the carved and seriously inlaid work that you are referring to and I create artistic rosettes, to be sure.

That work is subtle and complex -- but it has taken me years to develop and refine such a sense of design. But I did these four other, much simpler things at first . . . and I continue to do them. And I believe that people do copy these, although perhaps without being fully aware of the fact that they qualify as artistic touches.

For one thing, I have, since the beginning, used wood bindings and purflings. For those who don't know, bindings and purflings are the strips of wood at the edges of the guitar that constitute its visual perimeter -- that is, the visual frame. They quite literally define the guitar's shape for us; they "contain" it visually



-- very much in the same way that a picture frame “contains” the photo or painting inside of it. If you ever looked at one of the simpler guitars out there that lacks bindings/purflings you’ll know what I mean: they have a naked look to them. The most common binding material on commercially made guitars that are otherwise often made of very nice real woods, is plastic.

To me, that is really tacky. All-wood construction simply looks better. I mean, when is the last time you went to a decent art gallery and saw any work framed in plastic? For that matter, while the use of plastic is universal in mass-produced items of every kind, consider that there is a reason why artwork and artisanal objects are made of steel, plaster, stone, wood, glass, leather, ceramic, paint, bronze, fabric, paper, or even composite – in other words, of anything and everything except plastic.

There are the bobble-head figurines and such that are found in today’s gift shops, and various other such knick-nacks, but where have you

ever seen any real statue or any architectural ornamentation made of plastic? To my mind, plastic is for toys.

The second thing I’ve done is to create rosettes that have taken some work to plan out and install. The average commercially made guitar today gets by with (1) rosettes purchased from a commercial supplier and installed with as little effort and as much dispatch as possible, or (2) concentric plastic rings that are occasionally spiced up with a circle of abalone shell. These options are “good enough” for most people; but they require no imagination or creativity whatsoever. I recommend doing something that is personal and imaginative. While most people would consider the rosette to be a default component of a guitar, it can represent real artistic effort and achievement.

The third thing I’ve done is to give my pegheads and bridges a sculpted look, instead of the look of something shaped in fifteen seconds with a router. The former takes a bit more time and care, but I believe that it gives my guitars some



personality. And it's not as though these are Picasso- or Michelangelo-level artistic touches: something simple and elegant does wonders. Again, compare with the typical steel string guitar, which has the simplest appointments and lines, and the most practically executed shapes and contours of bridge and peghead.

And to top it off, there's a lack of any beveling or relief-work to give any of those details any visual depth. I've opted for making the various elements of my guitars somewhat visually crisp and interesting. A bit of flair is a good thing – especially if one can recognize that (at least in Japanese art) a line can be so essentially simple and right that it crosses a boundary and is flair.

The fourth thing I've done is to miter just about every visible binding and purfling joint on my guitars – just as the corners of picture frames are mitered. The woodworker's default position is to make linear elements meet in a butt joint, which gives the work a house-framing/carpentry look. I'm not knocking carpentry: Christ was a carpenter.

However, while mitering takes extra time and care, it does pay off visually.

The fifth thing I've done is the relatively innocuous thing of making my guitars' lines smooth and organic – as opposed to the awkward and clunky look of the average steel string guitar's lines with its various-radius curves mixed in with flat stretches.

I consider all the above to be in the category of “artwork”, even though most other people would be happy to merely call it “good workmanship”. As for the carved artwork that I think you originally asked about: it is distinct, and it represents good workmanship, but there are practical considerations that argue against someone doing it as I do it.

For one thing, it has to be cleanly and sensitively executed if it is not to look amateurish. And for another, it is so time-consuming that it raises the cost of an instrument. And in today's economy, that can be a deal-killer.



There has been one Japanese entrepreneur who has been copying my work outright. He was having one of my carved designs laser-cut and installed on his factory-made guitars (which were themselves outsourced to a cheaper work force in another country). I persuaded him to stop doing this; and I think that he has. But that kind of thing is not exactly copying; that's more of a commercial rip-off.

Finally, there's a dimension to "copying" that has to do with one's sense of artistic professionalism rather than one's woodworking chops or lack of artistic imagination: giving others credit.

I receive requests for permission to do designs that I've previously executed and that are being admired; I grant every one of them, with my blessing for success and furthermore with the suggestion that they make a change somewhere so as to "own" or personalize the new version. These people will not claim these designs as fully their own, but will mention that I inspired this or that.

"All-wood construction simply looks better. I mean, when is the last time you went to a decent art gallery and saw any work framed in plastic?"

Also, borrowing ideas from someone as prominent as I seem to be, and mentioning that fact, may be a plus in itself. Well, so be it.

But that's professionalism: own your own work as proudly as you can, share the rest, and don't steal any more than is absolutely necessary.





Thanks for taking the time to speak with us, Ervin. Before we let you go, maybe you may have some advice for folks looking to purchase a fine hand crafted guitar?

Thank you. At last: a simple question with a simple answer!

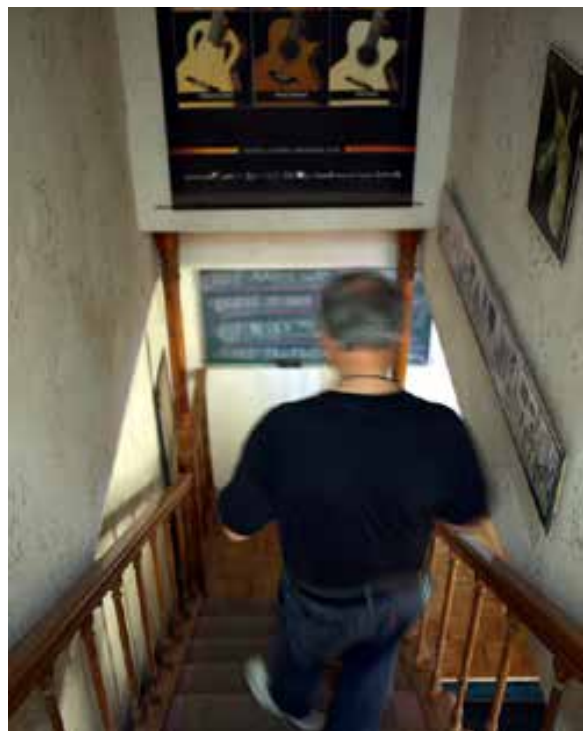
Uh . . . I'm kidding, of course: the matter is just as complicated as anything else in this biz. All that considered, I'm going to give you an answer that isn't exactly a set of rules of thumb for picking out a fine guitar; instead, I'm going to take you on a short guided tour of *the marketplace* as I see it: it is a shifting geography ruled by purchasing power and full of intriguing yet plausible but often misleading appearances . . . within the borders of which one does one's serious buying.

**“generally a given that
*a fine hand crafted
guitar will cost more
than the alternatives*”**

No, I'm not putting it down; but if one is doing anything but buying necessities I do see the matter this way. And I'm sorry for being so wordy about the seemingly simple subject of buying stuff.

For starters, it's generally a given that “a fine hand crafted guitar” will cost more than the alternatives. So let's start with that. The question of why some guitars cost a lot more than others -- which look pretty much the same in size and shape as others, are made of similar materials, and sound roughly the same -- often gets asked, in one form or another. The usual answer, I think, is any of the following dozen clichés:

- (1) The quality [workmanship, artistry, materials, or whatever] is better; the price reflects the quality
- (2) It sounds better
- (3) It's one of a limited number; it's one of a kind; it's exclusive
- (4) It's new and improved; there's more labor in it; it took longer to make
- (5) It's really worth the price. This isn't crap, it's the real deal; this guy really knows what he's doing. Or, better yet: it's a good deal; it's cheap considering how good it is
- (6) These products have a great reputation and track record; you can't go wrong
- (7) It's a great investment
- (8) These things are in great demand and they're going fast; all the better people own one
- (9) It's beautiful; it's desirable; the maker is a truly gifted artist
- (10) It's special: it's made by someone renown; you're buying a piece of history!
- (11) You have the discrimination and discernment to see the value of this; you'll be a desirable, interesting, and superior person if you buy it; this separates the men from the boys, and the Average Joe from the Players
- (12) It's what the market can bear; take it or leave it



Any or all of these things may well be 'true', and if you're looking to purchase "a fine handmade guitar" you'll run across and deal with most of these. However, I do think the matter of how come? is the wrong question to be fascinated by. I mean: do you really care why something costs a lot more than something else, other than academically? A much better question is: what does any of this have to do with you, and what is the reason you would buy anything significantly expensive? Let me explain my thinking.

A peek behind the marketplace curtain

The fine print to the above points, if I may put it like that, is never mentioned out loud but is essential to understanding the Dance Of The Purchase-And-Sale -- especially in the mass market. This fine print is:

(1) The salesman is undoubtedly a nice person, but isn't really interested in your happiness; he needs to make the sale; the more pleasantly he can do this, and the fewer complaints and returns there are, the better.

(2) The manufacturer, very likely your average guy who is trying to make a living, doesn't really care about your personal happiness nor the salesman's; his priorities are problem-free production and a good bottom line; he needs to ship his product out and keep his own people happy.

(3) You, likewise, are a good person but don't really care how many problems the manufacturer or salesman have: you want to get a good deal and be happy. None of this is "good" or "bad", and none of it is personal.

The exceptions to the above occur in that special corner of the marketplace in which someone is truly making something for you -- like a dinner, a painted portrait, a remodeled bathroom, or a guitar -- or you stumble onto something in the marketplace that has some special, personal significance for you, either imagined or real. In either of these cases



there's some necessary personal connection in operation. In everything else -- and most certainly in the mass marketplace -- everyone is doing this or that for their own reasons. Period. This isn't cynicism, by the way; it's just that this is how things work when money is involved. Moreover, everybody concerned (including you) has their own [and rarely mentioned] overhead, however it may be calculated. In the case of a craftsman making a guitar for you, part of his or her personal overhead is likely to be

(1) their love of the work and their competence,

(2) a concern with making the thing they produce be right, correct, and perfect in conscientious ways, and

(3) personal conscientiousness in ensuring that you are genuinely pleased with the end result. In the modern scheme of things, these things all count points. Your own counterpart to that is that you will expect, and experience, some genuine personal involvement as far as pleasure and expectation are concerned . . . and perhaps even disappointment if something doesn't go right.



The laws of pricing in general

In general, and aside from quality -- however it may be defined and which no salesman ever fails to mention or at least imply -- there are three main factors that affect the price of anything. They are pretty common-sensical and shouldn't mystify anyone.

The first of these is: the market has its own rules for setting prices. These rules have nothing to do with you other than statistically. Furthermore, almost no product exists at only one level of price and quality. You can buy a toaster for \$29.95 or \$229.95, or a car for \$10,000 or \$300,000. Monkeys, bananas, and everything else in between all follow this general rule. Guitars won't be any different.

The second general factor has to do with Supply and Demand, although this is disguised as quality and spoken of in terms of rarity, stylishness, workmanship of design, uniqueness, the time and effort and skill

involved and, sometimes, marketing and cost of doing business. But they all come under the heading of "supply and demand" regardless of whether you are a total innocent or a collector with Godlike taste and eye.

A subcategory of the Supply & Demand complex has to do with whether or not whoever produced the item in question is dead or otherwise definitely out of business; if yes, then no more of that item will ever be produced, and this drives prices of the desired product upwards.

The third general factor is the most interesting because it is entirely irrational: it has to do with whether something speaks to one or has personal appeal. It doesn't matter whether this is based in personal greed, passion, obsession, spirituality, taste, altruism, competitiveness, lust, fantasy, ignorance, addiction, reality, ego, sex appeal, delusion, belief in destiny, or genuine sophistication.



The brain's Pleasure Center gets a definite jolt from some purchases. Again, this is not good, bad, smart, stupid, or greedy: it's simply how things work. And as long as one has the money it takes, the thornier aspects of decoding the quality of something may be happily ignored.

Don't get me wrong: there really is such as thing as Genuine Quality; it's just that you're not likely to hear about it from anyone who has a vested interest in selling you something; you have to talk with an informed and neutral party to get to that. Also, in terms of English grammar, please note that "quality" is a noun, not an adjective: it's meaningless without a modifier like "good" or "bad" or some kind of synonym for either one.

The most powerful single component of this irrational factor is that things produced by or associated with well-known people or entities command higher prices. This is an immutable law. I repeat: I'm not saying this is bad; it is merely not rational. Any famous artist's work

commands higher prices, regardless of how weird his art is. The value of things in this category resides in a tangle of true worth or merit, 'brand loyalty', current popular opinion or faddism, nostalgia, "owning a piece of history", canny-to-unscrupulous marketing, being "ahead of its time" or "vintage", pandering to self-image, establishing a personal connection with the artist, or any of the feelings listed in the second sentence of the preceding paragraph.

What do these things mean for us? I think they mean two things. For starters, I think we should consider admitting that it is the least rational part of buying something that makes the experience the most thrilling. Second, it means that the more expensive the thing is, the more The Iron Rule of Buying (known in the old days as the Caveat Emptor clause) needs to be obeyed. In buying horses you should be able to tell the difference between a race horse and a painted nag with a nice saddle; the same goes for guitars.



For these reasons, most important rational corollary to the pricing/buying complex is that you need to have a sense of whether the claims that are made about an expensive object match its actual pluses and minuses. You must do some homework.

If this means paying someone knowledgeable to give you some useful pointers then you should consider doing it: otherwise you become the seller's lawful prey (it's his job, after all, to sell you something!) and your thrill will have a short half-life. While this probably sounds a bit overdramatic it is really no different than looking both ways before crossing the street.

Some reasons for buying a handcrafted guitar

1) Quality

We believe that something can be 'of higher quality' than something else. This can sound plausible.

Quality implies that some things really are better than others. But quality is hard to pin down in spite of the fact that everyone claims it and swears by it.

Manufacturers and salesmen pitch quality as though you could measure it by the quart or the pound or sell it by the yard, while actually putting their best efforts into price point. On the other hand, for buyers, quality is simply how good the product is.

You know: whether or not it works well, lasts, and satisfies. Mass-produced things tend to fall down in this regard because they are cloned objects that lack individuality. The phrase "if you've seen one [of a given model] you've seen 'em all" applies to them literally. This is particularly obvious in products like kitchen appliances, cars of any given model, chocolate chip cookies, and any print run of any book, magazine, or newspaper.



2) Appearance

Guitars look shiny and beautiful, in part, to attract the buyer. One might say that they have put on nice clothes, and makeup and perhaps even perfume and jewelry (a.k.a. options, features, and selling points), then put out the word that they're available, and have gone to their favorite hangout to attract you and have you take them home.

Is this quality? Not at all: it's simply how the world works. However, if you're looking for something better than average, and if you can't tell the difference between something genuinely good and something glitzed up but mediocre, then you have no business thinking about buying an expensive guitar.

3) Artistry

This is a subset of item #2, and here we touch on one of the more elusive elements in this equation: the genuine artistic merit of the

object in question. I am of the opinion that there really is such a thing as artistic merit; it's just that it's slippery and hard to get a hold of if one hasn't had any education in the ins and outs of line, proportion, visual symmetry and balance, creativity, and the overall success of a design (or lack of it).

It takes a bit of learning, training, and exposure and it all results in an educated eye; there are perfectly good reasons, after all, as to why some buildings, paintings, clothing, cars, home furnishings, and human bodies are more appealing than others. It'll do you good to become familiar with some of these reasons.

4) Sound

Everybody in the guitar making and selling business cites their guitars' sound as a selling point (actually, they hawk their guitars' specialness, often without spelling out exactly what that is -- and in the process hinting that



the sound is beyond description . . . which is in large measure true). There are guitars out there that sound o.k. (very few sound really bad, although there are some), and there are guitars out there that will make you feel like you've heard a choir of angels sing, or seen a magnificent sunset, or just watched your child graduate summa cum laude.

Most people will be happy with the former; a few will be looking for the latter experience. Commercial makers, as I said, are usually focused on the Price Point. You simply have to make up your mind what you're in the market for, and what you'll settle for, and what you can afford.

That really is the bottom line -- in spite of the fact that when I do these things I harbor the secret fantasy that owning a particularly expensive thing will make me a superior person. I suspect I'm not alone in this.

5) Personal reasons

Let's return to the question I posed at the beginning: Why, really, would you buy some thing expensive?

Your reasons are your reasons, of course. But be honest with yourself. Some good reasons might be:

- (1) I really want it. The impulse does not go away within a day. I will derive pleasure from this item for a long time to come.
- (2) I need one (for this or that plausible reason).
- (3) This [item] is really, really good; I've done my homework.
- (4) This is better than the one I have now; it's an appropriate purchase
- (5) I'm serious about this; I collect.
- (6) I've outgrown the old one; I need something that fits me better personally.



Some more questionable reasons might be the following (again, just be honest with yourself; people purchase things for all of these reasons, and more):

- (1) I want to show off and get admired; I'd be seen as a superior person.
- (2) I want to celebrate [something] and this'll do it.
- (3) if I buy it I'll be happy, and I can afford it.
- (4) I can turn this around quickly and make a few bucks off it.
- (5) The salesman intimidated/shamed/pressured/sold/impressed/convinced me.
- (6) I'll add it to my hoard; it's my next fix.
- (7) I believe the hype; the thing has to be good; everybody says so; I'm convinced I ought to have it.
- (8) Having one is expected of someone at my level.
- (9) I'm bored with my old one; it's time to buy something newer.

(10) I'd miss out on a great deal if I didn't jump on it: I can't pass this up.

Why would you buy it?

At the beginning of this thread I said that the question of why some guitars cost a lot more than others is the wrong question to be fascinated by -- other than academically. Really: as a general matter, who cares? And is anyone baffled by the fact that a 747 airliner costs more than a Cessna? I repeat: a much better question is the personal one of why you would buy an expensive one.

There are only two reasons that I can think of for buying an expensive guitar. The first is that one will love it. The second is that it is looked on as a useful tool or an investment. These motives can be combined in any guitar purchase and, with both, it involves doing your homework and paying attention to your own motives, experience, and desires as well as evaluating the guitar on its own merits.



Compare it. Check it out. Would you buy a house without a structural report on it?

To the extent that the pursuit of good sound and quality are factors in these matters, the fact is that most people have never had the opportunity to listen to a truly good guitar's sound or to appreciate the fine points of its design. Not really.

They consequently understand these things about as well as they understand the tax code. Fortunately, as I said, one can pay someone knowledgeable for a few hours' tutorial; it is well worth the cost. And, I repeat, you owe it to yourself: it's your job to equip yourself to tell the difference between hype and the real thing.

This is no easy thing to do in an environment where we're all neck-deep in perpetual hype. But the fact remains that if you're looking for something better than average, and if you can't

“the guitar you are agonizing about is just a guitar; it's not a kidney”

tell the difference between a genuinely good guitar and a glitzed up but mediocre one, then you have no business thinking about spending a lot of money on one. On the other hand, if you get taken for a ride, guitar-wise, it isn't the end of the world: you can learn something from it. I mean, that's sort of what life's all about, isn't it?

Also, people are motivated to buy things partly because they feel time pressure; they believe they must act quickly or lose the sale. My wisdom on this matter is that there are mighty few true once-in-a-lifetime opportunities; it's simply the market's job to make you think this sale is one of them. Also, some perspective helps: the guitar you are agonizing about is just a guitar; it's not a kidney.



THE BOTTOM LINE

Ultimately, in buying an expensive guitar, you are not dealing with a simple case of 'like' or a 'not like'. It's an analysis for which any checklist of specific items or qualities is merely a set of guidelines. You're actually playing and listening and looking for the overall quality of the experience.

Everything should be of top quality: at a top level it has to be so. You're looking at: "is every element technically correct"? And then you're looking at the creativity, and the little touches. Does the thing work as a whole? Does the balance of the various elements work? Is the sound rich, full, and expressive? Does any part of the sound fail to compare with any other part? Does the response under any particular left-hand playing position overpower that of any other position? Do different right-hand positions produce full and interesting tones?

Does anything in the visual field dominate everything else? Do the curves of the upper bout 'match' the curve of the waist and the curves of the lower bout? Is the rosette the right size for that guitar, or is it too emphatic, or underprominent? Do the colors of the various parts and woods match and complement one another? Does the guitar seem put together by one artist, or assembled by a committee? If any one thing grabs your attention more than any other element and doesn't let go, does that not somehow denote a lack of balance on some level? A lack of balance denotes some degree of deficit, and a five star guitar (to borrow a ranking system from the restaurant business) should be of the highest quality and be 'right' in everything -- including the quality of the thrill.

Finally, once you've decided that you really do want something, then you must deal with the price as best you can: you are, after all, in the marketplace.