

HOW TO BUY A HAND-MADE CLASSICAL GUITAR

Lots of people pick out their guitars based on very abstract and intangible criteria and that is perfectly understandable, after all we are talking about personal preferences. The most concrete and limiting factor will probably be the budget.

Some people will find out who makes the instrument their favorite guitarist uses and will order a replica. Others will simply pick a guitar, play it, like it and buy it. This is all perfectly fine. If you feel comfortable and happy with a given instrument or maker, go for it. However, some more information can always be handy and helpful.

This is actually a very long topic of discussion and a lot of information will be condensed and simplified for the sake of clarity. We're going to put a lot of things in black and white, but rest assured that there are thousands of gray areas in between. You don't need to become an expert in lutherie, but the more information you get, the easier it may become for you to make your choice.

FACTORY vs HAND-MADE

For outstanding classical guitars, we have pretty much no choice when it comes to factory-made instruments. A guitar made by any renowned luthier will cost you a few thousand dollars, while a factory-made will be in the hundreds range. The price of a hand-made guitar is high because it's a labor-intensive work, nothing is automated and it requires a significant amount of time of a highly skilled worker.

No piece of wood is identical. Each one has to be treated individually. As a guitar concert is intended to have a great sound with no amplification involved, the luthier cannot rely on any electronic components to balance or compensate anything. The luthier has to take into consideration a plethora of variables like the wood veins, pores, granularity, age, etc. Every single piece of wood will be precisely cut and calibrated and then they'll be put together in perfect syntony.

YOUR OWN vs A RENOWNED BUILDER

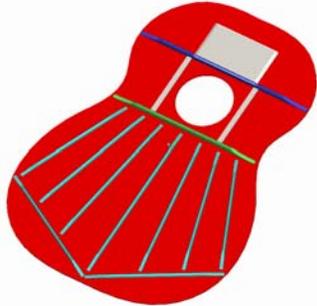


You may be surprised by what we are going to say now, but it's not so hard to build a good classical guitar. There are lots of stores in the United States that sell guitar construction kits with stuff like spruce, rosewood, blueprints, glue, etc and even a complimentary DVD that will teach you step by step how to build a guitar. If you feel like you have the time and the ability to handle wood and *strictly follow the safety procedures*, you might end up interested in giving it a try.

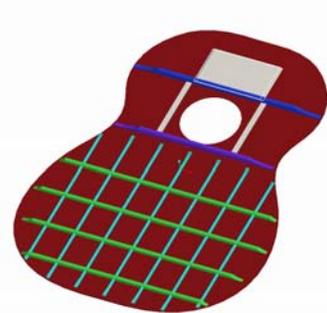
However, in order to move from good to great quality, it takes time and patience. From great to outstanding it may take years of practice and a lot of talent. And in order to go from outstanding to superb you'll certainly have to work very hard and be blessed with a great talent. It's like playing the guitar, only a few will hit the high notes.

UNDERSTANDING THE DESIGNS

There are hundreds of guitar makers all over the world and plenty of options. However, most of them can fit in two basic groups, according to their philosophy.



Traditional – The milestone of the construction of 6-string guitars happened in the 19th century when Spanish luthier *Antonio de Torres* first designed the fan bracing system that goes inside the guitar, on the soundboard, along with some other changes. That design defined almost everything we find in modern guitars relative to sound, volume and projection. Luthiers use this system with a wide range of variations. One of the most famous luthiers to built upon that tradition was Hermann Hauser, in Germany. Andrés Segovia used Hauser guitars for a very long time.



Modern – The modern construction style uses a different bracing system, resulting in a distinct sound quality. The sound is usually described as bright and pianistic. This type of guitar usually offers more volume than the traditional ones based on Torres/Hauser system. It's very common nowadays to find luthiers who use carbon fiber to create the lattice. And, of course, there are lots of variations in the basic design. Two of most famous builders that use this system are Greg Smallman in Australia and Thomas Humphrey in the USA.

There's much more to that, of course, and we barely scratched the surface of this fascinating, controversial, and passionate subject. Other luthiers designed radial bracing systems and added some more ideas, but they all pretty much fit in those two categories we mentioned.

Bottom line – The type of sound a guitar will produce is primarily the result of its internal design. Try both types and see which one you like better.

WOODS - SOUNDBOARD



Another factor that comes into play is the choice of woods. People usually have the choice to pick cedar or spruce for the soundboard.

It's commonly said that spruce will produce a crispier, sharper and more complex sound, while cedar will be darker and warmer. Not necessarily accurate, since the internal design can actually accentuate, soften or even eliminate those characteristics.

As a rule of thumb, though, what you really need to know is that when you buy a young spruce guitar it will significantly change and mature its sound as time passes by, while cedar will not change as much. The exception goes to pre-aged soundboards, some luthiers may use spruce that's been cut a few decades ago (expect to pay more for that).

Spruce has also another interesting characteristic that lots of people still don't know: it will open up according to whom will play the guitar. If the player has a clean, authoritative and consistent sound, the spruce will fully and quickly develop the fundamentals and harmonics, resulting in an embodied and beautiful sound.

The advice is: pick the one you like better. Major players like John Williams and Manuel Barrueco use cedar guitars, while the Assads and Sharon Isbin prefer spruce, so it's a personal matter.

Bottom line – The wood used in the soundboard is a personal choice. Just keep in mind that young spruce takes time to fully develop its potential.

WOODS – BACK AND SIDES



The dominant choices for classical guitars are Indian and Brazilian rosewood. Both varieties have been used for decades to build extraordinary guitars. You may eventually see maple, koa or Madagascar rosewood or other exotic woods, but they are exceptions, unless we talk about flamenco guitars, which use cypress and maple for the most part.

Brazilian rosewood (*dalbergia nigra*) is an endangered species and its price has gone sky-high since 1992, when its extraction was completely banned. Good pieces that would be adequate for lutherie are also becoming increasingly harder to find. Now, the only sources are old stocks and less orthodox methods, like going back to the forests and harvesting the stumps (the taproot, actually), dismantling old furniture or getting it from demolished houses.

Indian rosewood (*dalbergia latifolia*), on the other hand, is still abundant and can be extracted and sawn in ways that are perfect for luthiers to work with. As a matter of fact, there's little difference between Indian and Brazilian rosewood when it comes to sound. In terms of resilience, however, the Indian rosewood tends to be more stable and can stand more variations in humidity and temperature. The Brazilian rosewood, however, is usually more beautiful and can give the guitar an extra subtle sweetness.

The Brazilian variety produces a slightly sweeter yet more strident tone. It responds well in the quiet passages and extraordinarily well to a powerful attack. The Indian rosewood delivers a rounder, warmer sound, capable of an equal range of expression but with a less strident, clear edge quality. The guitars of both species have to be played side by side to appreciate the differences.

What most people don't know is that the most experienced luthiers can build a guitar with Indian rosewood and make very subtle changes to make it sound more like the Brazilian rosewood. But only masters will be able to have that kind of control over the construction process.

Bottom line – Brazilian and Indian rosewood are both great choices for backs and sides. Just be aware of the market value, since the Brazilian variety is an endangered species.

PROJECTION

This is a topic that most amateur players simply are not aware of or ignore, but it has to be taken seriously by anyone who's planning to play in public. Some guitars will sound just great in your hands. People in the third row will hear you loud and clear. However, people in the tenth row could just be hearing a weak, diffuse and undefined sound.

Unfortunately, the only way for you to check how well a guitar projects its sound is with another person in an open space. And you have to consider some other factors when picking up a friend. His or her playing style must be similar to yours, because projection also depends on how well people play the instrument.

You should also bear in mind that playing heavier on the strings doesn't necessarily improve the projection and can actually backfire, since the audience in the first rows may notice a significant increase in the noise level. And guitars with great volume don't necessarily have a great projection.

Last, but not least, you should always take another guitar along with the one you'd like to test. If you know little about projection, having another guitar that is known to have a good projection will help you understand how it works.

Bottom line – Projection is not easy feature to test and cannot be done alone.

FINISH

This is one of most controversial subjects when it comes to guitar making. Some luthiers have been successfully applying synthetic lacquers, while others argue that the only acceptable finish for a concert guitar is shellac / French polish. Shellac is a flaky secretion that comes from an insect found in southern Asian. Once dissolved with alcohol, it becomes a homogeneous resin than can then be applied to coat wood in a process known as *French polish*, which is labor-intensive and requires time, patience and good amount of skill to be done correctly.

Synthetic lacquers like polyurethan and nitrocellulosis, on the other hand, are easier to apply and will offer more protection against scratches and humidity than shellac. But if not correctly applied, synthetic lacquers may block some harmonic sounds on the soundboard. Only skillful and experienced luthiers will be able to apply a layer of synthetic polymer that is so thin that will not block those frequencies.

The rule of thumb is: shellac is harder to apply and less resistant to heat, sweat and other external factors than polyurethane or nitrocellulose. On the other hand, it's easier to repair. Synthetic polymers are more resistant but can result in a significant loss of some frequencies if not properly applied.

If you want to do some more research on that, bear in mind that some luthiers take finishing as a religion. Some will never tolerate any sort of synthetic polymers on their guitars. But there is a significant group of very famous and renowned guitar makers that have been successfully using polyurethane and nitrocellulose for a long time.

Bottom line – Do not try to impose any type of finishing to any luthier. Most people don't care about the finish, but if organic or synthetic polymers make any difference to you, ask the luthiers what type of finish they apply before ordering your guitar.

SCALE LENGTH

The *de facto* standard nowadays has been settled in 650mm. Some builders will use 645mm and other can go as far as 665mm. While this is mainly a matter of personal preference, remember that a guitar with an unusual scale length can be hard to resell.

TUNING MACHINES

We usually don't pay much attention to this item, but it is important. Good tuning machines make a big difference when it comes to durability. You don't notice it in the beginning, but after a few years the machines may start to squeak and lose precision.