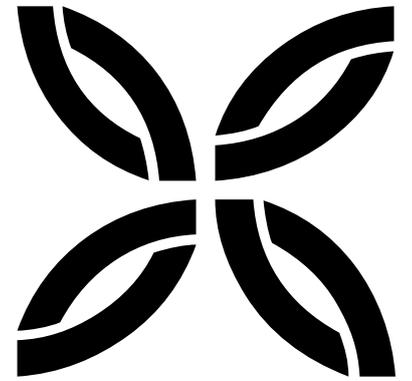


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Advanced description:

About developing/building concept and the brandname MeraGuitars:

A word "Mera" in Russian and Ukrainian means the same that "Measure" in English.
(The more interesting thing in Ukrainian and Russian as well there is a word "MEZHA" that sounds just the same as "MEASURE" in English and... MEANS ALSO ALMOST THE SAME!)

I formulated a conceptual Measure(Mera) of a Guitar as a quintessence or multiplication of 4 necessary and enough parameters: Comfort, Robustness(Reliability), Outward, Sound.

About engineering and material selection.

I start to develop the guitar from the drawing the strings spread with it's precise calibers in 1:1 scale dimensions.

Then neck and body shapes are "in the game".

During this process it becomes clear how much and what material to use.

Then goes a material selection stage.

When I'm in the material selecting stage of a project I choose a material by it's physical and mechanical parameters and only after getting the params I consider the outward.

A material could be usually wood as the most available material, or for example a carbon, which is just great but as well expensive and only black coloured(consider unifrom pultruded carbon parts, not a weaved layered).

So if the parameters of the material are just fantastic, like ironwood for the neck, and the outward is not a highly attractive as, for instance, a flamed maple can be - then I just don't care about the outward, because flamed maple just crazy sucks by it's params comparing to ironwood.

All in all, guys, I build an engineering construction, a device, not just a fairy colored child toy.

That's my approach.

However, the outward also is important as a one of the 4 conceptual params: Comfort, Robustness(Reliability), Outward, Sound.

So everything has been payed it's attention. But the engineering is of higher priority to the outward, because engineering, physical and mechanical parameters, meterial knowledge(and so on) MAKES YOUR SOUND COMFORT ADN RELIABILITY, not an outward.

I have a knowledge of materials, their properties and for now already have serious experience in both woods and metals(and carbon as well).

As you know, I make my own hardware for headless guitars.

The engineering task "Electric Guitar" what is that ?

I formulated it for myself and use this main goal building every guitar.

It is - to increase the rigidity and e-modulus of the neck portion relatively to the body portion(idealy to achieve the uniform rigidity and e-modulus along the central part of the guitar(top-to-bottom under the strings) or if not idealy, then at least get closer or very close to it.)

This is necessarily to make a vibration of the string longer (sustain) and less information loss for useless air pumping while giving more info(frequency and amplitude) into the pickups.

This gives me a controll on the designing-developing/building process: I've set the goal, I have the

knowledge to achieve this goal= METHOD.

If I'm lack of some knowledge or info, I get it then back to the building process.

Thus I KNOW WHAT TO DO AND WHY.

The more detailed matrix of my measure(MERA) the more controll I have.

So the more precisely I'm able to prognose the required result.

A neck is obviously thinner for comfort playing and longer because of scale - that is it's limitations.

You can't do it as fat as body. (But don't do too thin also.)

A body is obviously a lot thicker portion and shorter so it's modulus is high already.

To make the overall rigidity and modulus uniform along the scale or at least get closer to this there are 2 ways: decrease the body portion modulus by taking softer woods, hollowing a body and so on or to increase the neck's portion modulus choosing hardwoods, making some engineering solutions which increase the modulus and rigidity.

The first way, to decrease the body portion modulus, is worse because the overall modulus will decrease. And because the string is attacked under the body portion by right hand.

We need to increase overal modulus while have it uniform.

So I choose the second way - to drastically increase the neck modulus by any possible or impossible way while remain the body portion modulus also high enough(not hollowing the body in the central part) and of course getting it uniform over the central part of the guitar (under the strings)

Actually, the wooden part is a SPRING, wooden compression spring.

And the strings are also a SPRINGS, vibrational springs.

So it is like one spring coupled to another.

Thus going to increase the modulus of the neck portion I used the very hardwood and also invented/developed a anchor construction (which is inside the neck and not usual truss rod) which increases modulus drastically.

Also it unfoldable and tunable providing NO DEAD SPOTS.

You could see the rounded cover on the backside of the body - it is not bolted neck, it is cover for adjustment screw mechanism.

Recently these days I've even made further invention on how to make it almost invisible! So next guitars will be just fantastic ;)

About the ergonomics/comfort.

Tara's body shape is NOT just image-guitar, as one could consider by it's shapes, like BCRich or others.

Well, it is suitable for image as well of course. Some people looking to Tara shape even told "Oh, it's rock guitar!"

It is their stereotyped way of thinking.

Others told: "Oh, it's for the classic musicians!" when saw how it sits on legs :)

For me as a creator such claims are hilarious.:

Nevermind you are rocker, classic or jazzman - it will cover your needs.

I don't like stupid unreasonable limitations, bad stereotypes from the past etc., and never to something "strictly this" or that.

The guitar is indeed drastically universal.

Remeber: Comfort x Robustness x Outward x Sound ? Yep, MERA.

Thus using this concept as usual, I've set the task:

- to build the guitar which is pleasant to play, which is highly comfortable and ergonomic while looks beautiful and tasty and of course sounds great and reliable.

I have experienced by myself through the spine, shoulder, neck aches playing/practising jazz improvisation 10-12 hours a day in the past. I know what I'm talking about my close friends can prove it.

Thus this body shape was born as a result of long experience, life, and finally a development made to achieve this task.

It is resulted in what you could see.

The guitar sits on the thighs/legs by its shape + special chamfering which was developed and tested.

There are two main concepts(measures) here: "ERGONOMY BUILT IN A BEAUTY BODY SHAPE" and "SITTING LIKE STANDING" playing position.

I believe, ergonomics must not look ugly!

Looking to present miscellaneous ergonomic guitars I feel bad: they usually look so ugly and have non-harmonised lines/shapes (while may have nice color gamma)

As for me the matter is that it should look beautiful while be comfortable to play.

So that what I did.

Tara 1 is still closer to more classical lines but already is enough comfortable:

- spine and shoulders are straight;
- the body and legs/thighs are in relaxed natural position where they "want" to be;
- the hands positioned naturally, with no stress, and just where they required to be;
- left hand's wrist is STRAIGHT in 99% situations, it travels not forward and back like on usual guitars, but by radius angle to the body;
- fretboard view is just superb, the only neck is slightly turned leftside in some cases.

Even if it is not ideal, it is indeed very relaxed, natural and thus a lot more comfortable than ANY OTHER GUITAR.

- the ridge on the big horn serves as a prop for the thumb when playing tapping style.

- tapping is just paradise to play.

You don't require a strap while sitting, you don't require leg on leg.

You don't require right leg positioning - it is kinda in the past. However, you can freely set it on the right leg.

Like one of my friends said, sitting with Tara on the sofa: "OMG, ALL HERE..."

Also I need to add that sitting like this and having neck close to your body where Tara provides it, the left hand's small fingers receive A LOT MORE SPACE under the fretboard than in usual (on the right leg) position, when the left hand is bent and very far from your body.

And playing it standing of course highly comfortable: thanks to the weight balance and positions of the strab holders the guitar hangs stable and steady, not tending down by the neck end-tip.

Now I have already the further development of this concept implemented Tara 2(70% readiness) and Tara EVO which will have more radical lines while being yet more comfortable sitting and standing.

I added the leg on leg feature just to have more versatility, of course remaining BEAUTYNESS.

And of course the weight.

Well, the weight defined is mostly by the density of the chosen material - wood, and of course the hardware's metal density.

Yes, it's nice to have a lightweight guitar.

But there is a drawback - the sound will be much worse if to hollow everything like crazy paying attention only to weight.

Just because the density of the wood and metal influence overall modulus and rigidity, the sound is better by all means when using high density materials.

To be a weight-winnie is a bad decision.

In Tara I decided not to make hollows at all, instead I used light wood for the wings of the body.

And neck is crazy stiff as you already understood.

Also the tuners are stainless steel mostly.

Headpiece is lightweight but stiff Al7075T6

Thus the resulting weight is not very light. But it is not very high! It is about 3.3kg for 8 string guitar.

It's just ok consider the features and the sound.

About the sound.

And sound isROYAL!

No dead spots.

Crazy sustain and attack.

Long, tight, even and uniform with natural fadeout.

Nothing imede the vibrations.

Dissonant intervals and chords doesn't decay, doesn't loose notes.

Especially unusually astonishing long and tight sounds on the high frets thanks to the construction.

About the robustness.

One of the main thing is reliability.

Thanks to the selected quality materials, engineering know-hows, precision machining, special hard-wood glue, great lacquer brands

and my work the reliability of the guitar is on the top level.

There would be no neck twist or bend by time because of the neck design and implementation.

Not any fret will go off because they all are on glue.

Frets are stainless steel by Jescar - working very long time. It means the fretboard will be less disturbed for fret changins.

I can't even imagine what should be done to broke something in this guitars. May be only to hit it many times to the concrete... :)

So that's it. If I have forgot something, so please ask.

The same conceptual features are in Tara 6 and other guiatrs.

The difference only in wood and pickups.

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