5 Minutes With Krzysztof Trześniowski

Artisan Guitar Show: The luthier community is admired for having a spirit of generosity. Experienced guitar makers are known for giving of their time and knowledge to help less experienced builders both thrive and succeed. You acknowledge having learned much from Ken Parker, Linda Manzer, Michael Greenfield, and others. Your relationship with Ken is especially close and it appears to be mentor-mentee oriented. How has Ken influenced your work? How would you describe the value that his intellectual generosity has provided to your life?

Krzysztof Trześniowski: Ken inspired me and gave me the confidence to build. When I finished a course at Galloup I knew I did not want to build Martin or L5 copies. Structurally, these instruments were not optimally designed mainly due to the limitations of materials available at the time. I have identified areas that I want to redesign using materials available in the 21st century and a knowledge of physics. Afterwards I started to list functions, variables, design requirements and began to draw structures of my new archtop. When I was stuck and could not move forward, I found myself looking for inspiration. As I identified one problem after another, it turned out that Ken Parker had developed solution after solution. I was hooked. At one of the guitar shows a few years ago I asked Ken a gazillion questions on guitar physics and the acoustics of musical instruments overall. He patiently answered them all, adding from time-to-time some extra information from his aeronautical grade methodology. After three days, at the end of the show, when I had to go to catch my plane, Ken stopped me and said: “Christof, you ask the right questions. Many people do not even know that they should ask these questions. If you ask the right questions, you will find the right answers -- or most of the right answers. You have to build instruments”. What a positive kick in the a.. it was! To cut the story short, some time later after I had built my first prototypes, I asked Ken if I could use some of his design ideas and he generously agreed. I do not copy his designs, but take the function as a basis for my design. In some areas I considerably depart from Ken’s ideas either because I do not to exactly agree with Ken, or maybe, I still do not understand his solutions ;) A few days ago I returned from the USA where, between other meetings, I spent a very long afternoon with Ken in his workshop -- flrst time ever. This was a quality time that turned out to be great. I have to admit the exchange of knowledge, experiences, hypotheses and ideas might have been a little imbalanced or lopsided. I cannot imagine a better way of spending time. It was the most pleasurable brain scratching I have enjoyed in quite some time! I left Ken’s workshop with some issues to solve, some solutions of problems I was stuck with, and I am looking forward to the time I will be designing new stuff as an effect of this inspirational meeting. I too, try to share my knowledge and methods on my web page, Facebook, emails, and this is my payback for the good I have received.

Artisan Guitar Show: Not all that long ago a person interested in learning the craft of guitar making had only very limited educational resources. Now, there are great books and schools readily available. You chose the path of the individual study of lutherie and attended Galloup School of Lutherie here in the United States. What advice do you have for an aspiring guitar maker? What steps would you recommend?

Krzysztof Trześniowski: I highly recommend a guitar making school to every aspiring guitar builder. It will give you basic skills, confidence, and show where the areas to develop are. I highly recommend Galloup School. Brian organized a very effective program, provided all necessary conditions, tools and selected great trainers. Matt Zalewski and Sam Guidry, who were my principal trainers, did a fantastic job. Probably the best path after school would be to find a master guitar maker and become an apprentice. The other good option is to join a small guitar manufacturer, where one can be exposed to different stages of the manufacturing process. One can choose my way too. There is a lot of knowledge available online today. I had more than a basic knowledge of physics and acoustics before Galloup School. I have an engineering and Master of Science degree, so the science world is a comfortable place to me. One can learn a lot online, provided that he/she possesses enough basic knowledge to understand which sources are good. A strong BS filter is a must. There is a lot of crap online and a skill to avoid it is invaluable. Then, my recommendation is not to look at guitar making sources only. I take a lot of information from violin makers, but when a problem is on the table I look everywhere. For example, when I was designing the structure of the guitar neck maximizing light weight and high stiffness, I was looking for a source of this kind of structure everywhere. Ultimately, I used the wing structure of a 15 meter Class racing glider - not only guitar makers find the best solutions.

Artisan Guitar Show: Your instrument design and construction utilizes what can best be described as a scientific approach.

You have designed “an ultra-low impedance (DCR 60 Ohms) humbucker” pickup for your instruments and incorporated interesting materials including carbon fiber and aluminum. Your neck design was inspired by the wing structure on glider aircraft which you pilot. Even the approach you take to bending wood has a scientific basis related to fiber strength. What in your personal background instilled this interest in scientific methodology? How much of your time is dedicated to researching and developing these theories as opposed to building instruments? What do you see as the future or the evolutionary track of the archtop guitar?

Krzysztof Trześniowski: If one wants to improve archtop design and build better instruments, the scientific method is the only way forward from all the great instruments built on the basis of intuition and experience. Science moves the whole world forward. Science replaced Earth with the Sun in our solar (sic!) system and allowed Armstrong and Aldrin to walk on the moon. Even science nonbelievers when using Google maps for navigation to a grocery shop, are using position correction calculations based on Einstein General Relativity theory. A guitar is a very complex thing. A simplified model of the guitar could be a set of 4 coupled oscillators. The way these oscillators interact, the efficiency of every energy transfer between parts, and the ability to sustain standing waves in the system can be translated into variables in guitar design. Understanding mathematical equations describing instrument behavior will not necessarily make you a better builder, but understanding principles will reduce time researching “snake oil” solutions. Still, it took me more than three years working long hours 6-7 days a week to develop my design to its current state. During the design phase, 90% -100% of my time was R&D. I was stuck sometimes for weeks when I could not find a satisfactory solution. Today, when building an instrument which is 90% based on design in which I firmly believe, I obviously have areas where I look for improvement. This will never be stopped for me or for the acoustic archtop guitar. Acoustic archtop guitar development was stopped by the big crisis of 1929. A few years later development of magnetic pickup and amplification began. The revival of acoustic archtop guitar development will lead to the revival of its usage in many musical genres, not only jazz.

Artisan Guitar Show: There are historic differences between non-American made guitars and American made guitars. As a European builder with a strong connection to the North American market and builder network, what do you see as the primary sonic, aesthetic, and technical differences? Do you think that the difference gap has been bridged as time has passed?

Krzysztof Trześniowski: First, I think diversity is good in any aspect, including guitars. Although steel string guitar, acoustic archtop and electric archtop guitars were all American inventions, European manufacturers, and much later individual European builders followed. First they tried to copy American guitars, but due to an evolution-like phenomenon called Small Population Size Effects a rapid drift in sonic, esthetic and technical differences occurred. European builders copied few, not necessarily the best instruments, and developed and improved on this basis a bigger population of instruments. As the European archtop manufacturers could compare their product on local markets with other European instruments, a population of distinct qualities was born. It developed to a better quality separately and the European guitars were different, not necessarily inferior. European archtop guitars sometimes use solutions that are not well accepted in the USA. E.g. a zero fret. There is nothing wrong with a zero fret. But in America it is associated with cheap guitars and therefore considered inferior. So, Europeans built many good instruments, but they were different from the American ones, not fitting in the American taste. Today, during the Internet times, the differences slowly disappear. Not differences in quality, because Europeans build great instruments too, but an exposure to differences creates a bigger acceptance of the different which is great.

Artisan Guitar Show: Please name three recordings that you think would be a great addition to any music library or collection.

Krzysztof Trześniowski: Tough…
1. Johan Sebastian Bach, Goldberg Variations, Glen Gould - piano, 1981 recording remastered from analogue tapes in 2002. Sony Classical – S3K 87703,
2. Claus Ogerman / Michael Brecker – Cityscape, 1982; remastered in 2014, Warner Bros. Records – 8122-79576-8,
3. Debussy: Suite bergamasque, L.75, III. Clair de Lune (Arr. James Bishop-Edwards), Roxane Elfasci - guitar, 2016, released 2021 under Amigo label - a division of Cosmos Music. (available on most streaming services e.g. YouTube)
4. Joscho Stephan and Bireli Lagrene, Sunny, YouTube, 2020.
5. Shaka Ponk - Personal Jesus (Froggy’s Delight session), YouTube, 2011
6. …
Did you say three?