



In The Doghouse

By Chris Fitzgerald

String Theory (the signal chain begins here)

As a player who's very picky about my sound – and as one who believes wholeheartedly in the age-old adage that a player's first and most important link in their amplification chain is their acoustic sound – I'm very fortunate to have a luthier who does a great job of helping me maximize my setup to help me get the best acoustic sound I can, given my personal preferences as regards type of string, preferred string height, and, of course, my physical means of tone production. That luthier is Nick Lloyd, in Cincinnati. Over the years, I've learned a lot about basses, strings, and setups from Nick, and when I sounded him out about interviewing him in the hopes of distilling some of his wisdom into an article, he was gracious enough to accept.

Years ago, while working on a setup on my bass, Nick impressed me by asking a lot of questions about my preferences before starting to work on my bass. He actually asked me to play in different areas of the bass so he could watch how I pulled my sound and how I stopped the string, then asked me a number of questions about what kind of string height and tension I liked – and whether I

was getting what I wanted from the bass, currently. During the course of the conversation, he made a comment that has stuck with me ever since. He said (I'm paraphrasing, because it was so many years ago), "Below a certain price range, most players are really playing and responding to their strings and setup preferences; the rest is just a box with a neck on it that acts like an acoustic amplifier." I had never thought of the matter in this way before, but ever since then, I've become a firm believer in this way of thinking. The "box" is still an incredibly important part of the equation – as evidenced by the different sound of the two basses I own, each being the same model and specs with the same strings set up the same way, the difference being that one has a carved top and the other a laminated top – but in terms of feel and experience as a player, it's about the strings and setup. As a player, knowing what you like and what you can live with not only makes it easier to maximize your own setup on your own instrument, but it also makes it easier to try to line up an appropriate borrowed or rented instrument for those times when you are on the road and can't bring your own instrument with you.

Let's start with strings: in terms of *pizz* response (which I'll focus on here in the interest of space and likely demographic), Nick describes a progression from the beginning where there were only gut strings,

which were most often used for the prevalent 2-beat style music of the era. When set high to maximize acoustic volume, the characteristic sound of gut strings is a visceral thump on the front end of the note, followed by a quick decay, which allows space between the notes, without any effort on the part of the player. As time went on and strings evolved, more and more kinds of strings were developed, usually involving a steel or synthetic core covered with a smooth metal wrap around the outside. These changes coincided with a stylistic change in the music and a desire from players to move toward a sound that was more *legato* and connected, a more lyrical sound with lots of sustain and much brighter overtones. Steel strings can also be set closer to the board, which makes them growl more easily and facilitates a more agile way of playing, if that is what the player desires. Nick describes this kind of modern setup as being like, "driving a sports car – you turn the wheel just a hint to either side and make an instant sharp turn." In other words, they are very articulate and accurate, leaving little margin for error in technique.

At this point in time, there is a huge variety of strings on the market, all occupying some point on the continuum between the visceral thump and quick decay of gut on one end, and the brighter, articulate sports car-like accuracy of spirocores on the other. So, from the luthier's point of view, the first

piece of information Nick wants to know about a player he's going to set up a bass for is the choice of string, which tells him the basic sonic parameter the player is after. The next factor to be considered is how much resistance the player likes to feel from the string. As Nick describes the chain of events in tone production, muscle energy (which he equates with energy created by good use of arm weight) is transmitted to the string, creating string energy, which is eventually transmitted and amplified by the top and body of the bass. While this may seem obvious to some, it is instructive to me, as it emphasizes those aspects of tone production that do not require an expensive-pedigreed instrument to achieve.

What the player actually feels from the string while playing is what I had always thought of as "tension," but which Nick describes better as "resistance." A string has the exact same amount of tension on it, no matter whether it is set extremely close to the board or high off the board; what the player feels while playing is the resistance from the string when plucking it with the right hand, or stopping it with the left. As Nick points out, when the string is close to the board, the right hand finger glances off of the string when plucking, whereas at a higher height, the finger gets deeper under the string when plucking, usually resulting in more mass or surface of the finger contacting the string, which creates a bigger draw on the string, producing a greater excursion of the string when the finger releases it. What this means for the player is that the quantifiable tension of the string itself is only a part of the story; what's really important to the player is the amount of resistance he or she wants to feel when playing. A high-

tension string set low to the board may give the feeling of very little resistance to the player, and a low-tension string set high off of the board may feel like a lot of resistance. This gives the player a lot of tonal options to experiment with between string types and setup.

Given the high price of double bass strings these days, it's not really practical for most of us to try every possible kind of string at every possible string height before deciding what our optimal setup will be. But Nick offers some very practical insights into how we can all make this experience a little less painful. As he points out, there are dozens of ways to set up a bass for dozens of styles of music and limitless personal player preferences, but we can whittle these down by following some very simple guidelines:

When you hear a player whose sound you like, don't be shy about paying them a compliment and asking them questions about their instrument, setup, string preferences, amplification, etc. While a few players are secretive about these things, most will be all too happy to share this information with someone who appreciates what they do enough to ask (especially, as Nick points out, if there is an offer to buy the player a drink at the end of a long night). He also recommends that you write this information down, so you won't forget.

When communicating with your luthier about what you want, be clear about what you are after and be as specific as possible. Nick mentions that some shops

have only one kind of setup that they feel is best for everyone, but he feels that the better luthiers keep an open ear to what the player is asking for. What do you like about how your bass plays now? What would you like to improve? If there is an issue in the feel of the bass, do you feel it most in the right hand, the left hand, or both? If it's a left hand issue, the amount of scoop or camber on the board may need to be adjusted; if it's a right hand issue, the problem likely lies elsewhere.

Are you married to your string choice, or are you willing to experiment? Either way is fine, but it's important for your luthier to know this.

Last, remember that beyond a certain point, everything is a tradeoff; making a change that improves one area of how your bass feels will likely affect another area in a way that you might not expect at first. When this happens, live with it for a while and see if the tradeoff is worth it once you get used to how it feels.

In the end, developing a healthy relationship with a good luthier is an essential part of developing a healthy relationship with your instrument. If you're lucky enough to find a good luthier near enough to where you live, nurture that relationship. And if you're lucky enough to live within a few hours drive of Cincinnati, make the trip to Nick's shop the next time your bass needs a little fussing over. You'll be really glad you did. 