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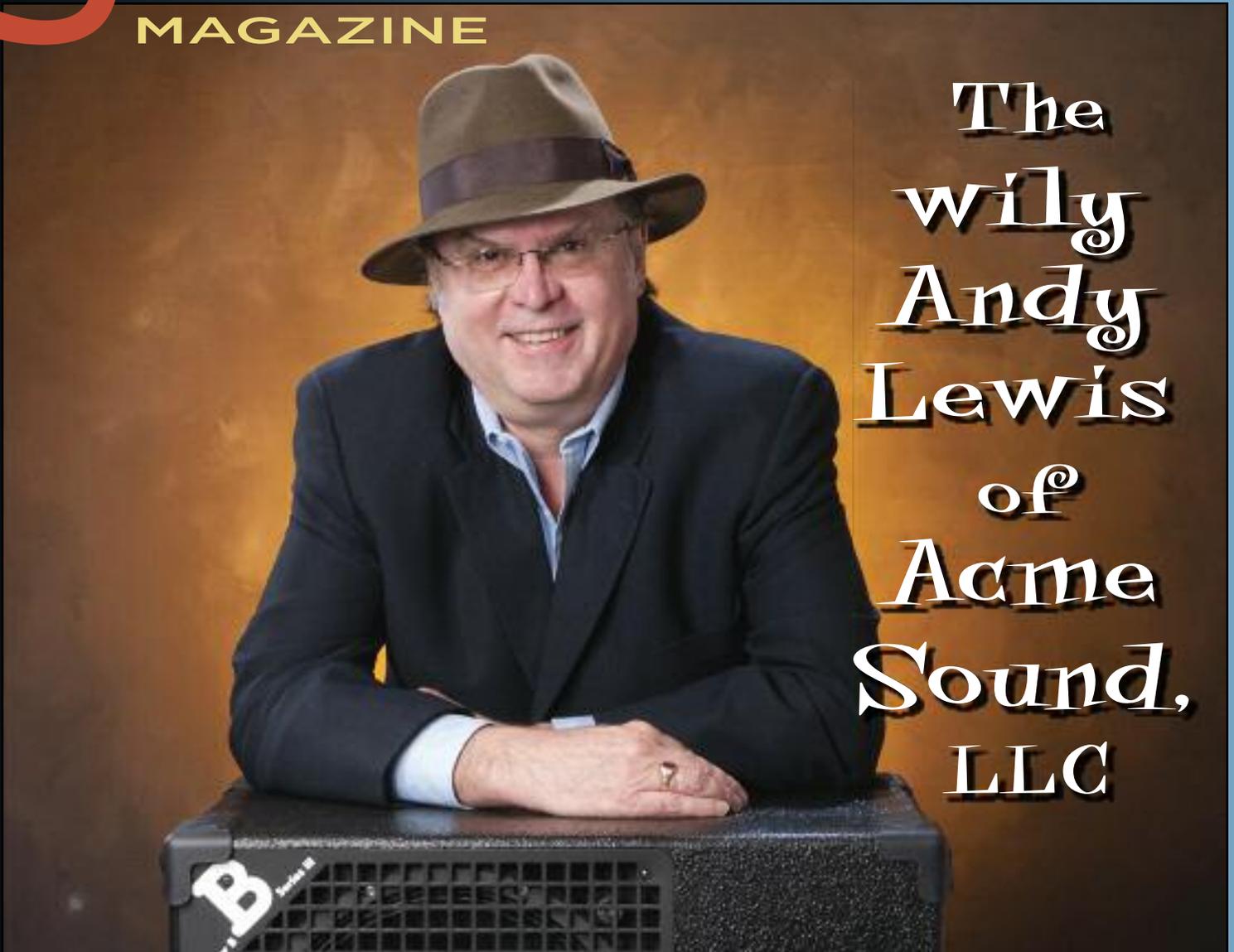
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# In The Doghouse

By Chris Fitzgerald

## Physical Tone Production on the Double Bass, Part 1: Leverage and the Left Hand

*Bass Gear Magazine* is a wonderful place to go to find out about all of the latest basses, pickups, amplifiers, speakers, microphones, preamps, and all manner of peripheral electronics related to amplifying basses of all kinds. I have greatly enjoyed writing about these topics to date, and I will continue to do so in the future. For this issue, however, I'd like to focus on the primary and most important link in the amplification signal chain for any double bassist: the physical technique that produces the initial sound that all of the aforementioned gear is meant to amplify. To paraphrase the way one famous jazz educator once put it, "You can have all of the best and most expensive gear in the world, but if you are producing a thin, weak acoustic sound before plugging into it, all of that gear will be amplifying a thin, weak acoustic sound." This article will be the first in a series (likely intermittent, but hopefully continuing) of articles on physical technique, and will focus on tone production in the left hand.

On the face of it, this issue is simple: if you press the string down hard enough with the left hand, then pluck or bow it with the right, a clear note will emerge. Do this in sequence, and you can create a melody. But as anyone who has ever picked up a double bass and tried to play can tell you, it's far more

complicated than that. A closer inspection of the issues involved reveals that there are numerous ways to approach generating and applying the force needed to press down the bridge-cable like strings of the instrument, especially if you are one of those players who likes the setup of the bass to include a string height that would be considered medium to high. While the issue of "optimal string height" is personal and subjective, it makes sense to consider developing a left hand technique that can function at any reasonable string height, and then decide where you like to keep your string height as a matter of personal musical preference from there. The alternative – playing with low string height because you lack the physical technique to do otherwise – is tenable and defensible if you have already explored your physical and technical boundaries in a systematic way, but is (in my opinion, of course) otherwise a questionable decision at best and a cop-out at worst.

The remainder of this article will focus on how to apply enough force to the string to produce a good clean stop. For practical purposes, I consider any technique that allows the player to play for an extended period of time in a relaxed manner "good technique," and any technique that produces stiffness or muscular tension (especially to the smaller and more vulnerable muscle groups) "bad technique."

My general starting point for all technical issues of this sort can be loosely translated into the following formula: the more force that is needed to perform a particular task, the more important it becomes to find a way to perform that task by using the large muscle groups of the body in a relaxed

and holistic way rather than overstressing the smaller ones by cutting them off from the bigger ones. This principle is not particularly new or original, and is not limited in context to music. It's the same reason we are often advised to pick up heavy objects by bending our legs – with our backs straight – rather than stooping over, or why athletes who have to throw a ball use a turning motion of their hips to generate speed and power in their throws. As the best teacher I ever had in my life once told me, "We don't play the piano with our fingers; they are just the end of the mechanism that happens to touch the key."

### What constitutes a "good stop" for pizzicato playing?

One of the first things I'll typically work on with a new student studying jazz bass is to instill in them an appreciation for a good clean left-hand string stop. A practical test for a good stop is to examine the sonic results produced by varying the pressure applied to the string by the left hand. Start with a low, typically hard to stop, note on the A string, like a Bb or B. Explore the range of pressure you can apply to the string, from barely any at all to all the downward force you can exert, and listen to the sound of each as you pluck. With not quite enough force to really stop the string, there will be a dramatic rattle at the stopping point. Add a little more force, and the rattle subdues into a buzz, but the note still doesn't yet sound "clean." Add a little more downforce, and the buzz starts to clear up. Add a tiny bit more, and the string is free to sing between the two fixed points of the stop and the bridge, and will sustain as long as possible. Adding more force than this amounts to energy wasted.

If we divide these stops into four grades of stops (i.e., Rattle=1; Buzz=2; No buzz but still a bit muted and lacking maximum sustain=3; and Clean/Sustaining=4), the question then becomes, “How can I consistently apply enough left hand force to my stops to always get clean stops without wearing myself out or injuring myself in the process?” This question, which seems pretty simple and un-daunting when considering playing a 5-10 minute piece, grows in importance and complexity if you consider the prospect of playing 3-4 hour gigs multiple evenings a week for years on end. With that goal in sight, you’d want to have a built-in cushion of technique that could produce the needed force with as little effort and strain as possible. So, how can you go about doing this?

### The Rule of Thumb

Mine goes like this: if I need to use my thumb on the back of the neck in order to produce a good solid clean stop with any finger on any string, I’m relying too much on the small muscles of the forearm and should re-examine my technique. This statement requires a serious disclaimer, as not all bassists feel the same way, but for my own personal purposes, I absolutely stand by it in my practice/technique regimen. I feel that it’s extremely important to be able to play without the thumb on the back of the neck on principle, as this forces the body to use the larger muscle groups instead of the small ones.

To experience what this feels like away from the bass, try this simple exercise: place your right hand palm up about at the level of your navel; place your left hand palm down on top of it; curl the fingers toward each other so that they interlock lightly, then try to pull the hands apart. Notice that you feel the stress in your chest, shoulders, and back much more than in the fingers and forearms. Notice also that the thumbs of both hands aren’t used at all to produce this effect. To try the same thing at the bass, make the classic bass player “C” shape in the hand – roughly pretend that you are wrapping your hand around a grapefruit with the

thumb opposite the fingers – but instead of squeezing the thumb toward the fingers and vice versa, simply swivel the thumb upward toward the top of the hand while maintaining the shape of the fingers. Next, apply this shape to the bass and see if you can produce stops on any note without the left thumb squeezing or helping in any way. You may want to try this first from a seated position, as the force generated by the left arm and upper torso in this way is more than enough to move the bass if there’s nothing to stop it.

Added disclaimer: The notion of playing without the left hand thumb is a technique for practicing only, and I would never suggest performing this way. It’s sort of like baseball players warming up with weights on their bats before stepping into the batters circle – most pros seem to do this when on deck, but I have yet to see one step up to the plate and face a live pitcher with the weights still on. Likewise, when I play, I almost always use my thumb on the back of the neck, albeit more and more lightly as the years go by.

That’s basically it, and as with anything else, consistent practice makes it better over time. I have a 36-minute scale/arpeggio-in-12-keys warm-up that I do at the beginning of each practice session, and practicing producing clean stops without the left hand thumb comprises the first 30 to 60 seconds of each key. After that, the thumb is added back to help fine tune the motion for intonation and to provide stability for shifting. After a good practice session these days, – or a 4-hour gig, for that matter – I don’t feel any soreness in my hands or forearms at all, and that’s a really, really good thing.

The next installment will focus on two details of left hand technique: tips versus pads of the fingers and the shades of color in between, and the shifting of arm weight from finger to finger rather than “pressing” with the fingers themselves. **BGM**

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