

Guitar Tone Hierarchy- One Man's Perspective

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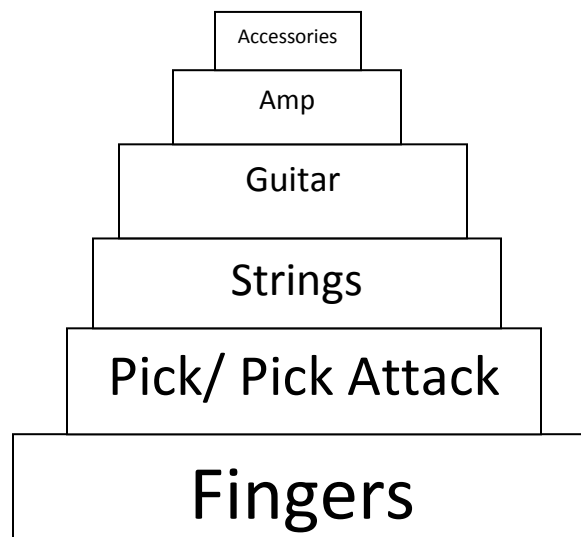
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I had just recently completed a transcription of Johnny Smith's "Yesterday" and decided to share it with a student. After he worked on it for a week he came back to play it for me. He was playing it well but it just didn't sound right. I asked him to play it again. I couldn't help but notice the type of pick he was using and the angle he was holding the pick. In my opinion, it was all wrong for the type of guitar he was playing and the style of music. So I asked him if he ever considered using a different pick. At first he looked at me like, "what?" But then I explained and demonstrated the tone I was hearing.

My student is a GREAT rock/metal player. He has chops out the wazoo and does sweep arpeggios that I could only dream of doing. As many speed pickers do, he uses a Dunlop Jazz III and has it placed at an angle for quick release. But he's playing Johnny Smith on a very nice Alvarez acoustic. I suggested that the style of the pick and the picking attack were all wrong to effectively work for this song and on the type of instrument he was playing.

It actually reminded me of a similar experience I once had. It was 1988 and I was a junior in high school. I was selected as the guitarist in the honors jazz band at California University of Pennsylvania. At the very first rehearsal one of the directors, Gene Suskalo, said to me, "do you have any other picks?" Well, I didn't. He told me my sound was very "splanky." Looking back, I was playing my homemade Strat with a single humbucker in the bridge. I'm sure it was very "splanky" for jazz. It was here that I had my first experience listening to Freddy Green. I realized just how amazingly dynamic and different the guitar can truly become and how simple things can really affect the tone.

After having this discussion with my own student I thought, how can I better communicate the concept of tone? What I came up with is the Guitar Tone Hierarchy. Just like the foundation of a house the hierarchy builds itself with a strong foundation from the bottom up.



1. Fingers-

The fingers are the front line to guitar tone. Notice I didn't say good or great guitar tone. The fact of the matter is that everyone is different. No kidding, right? But those differences are very applicable to achieving tone with our instrument. We need to understand that to achieve the best tone for ourselves. Some are built with large hands while some are small. Some have skinny fingers and some are fat. This can all affect the tone of the instrument in many ways. The biggest trick to getting the best tone from the fingers God gave us is to know our limitations. For me, I have skinny hands and long skinny fingers. I always feel like I have to work a great deal on hand strength. That's probably because I don't naturally have it. Therefore there are certain things that are difficult for me to do. For example, if I have a gig where I know I'm playing my Taylor acoustic, I know I need to practice well ahead of time because .012" gauge strings aren't always easy for me to play. A couple hours of practice time to build my hand strength up and I'm fine.

2. Pick and Picking attack-

As I stated above, certain types of music require a different articulation. The best way to handle that might be to slightly alter your picking style or to use a different type of pick. Here are some things to think about.

- Pick material- Different pick materials do sound significantly different. I've tried everything from nylon to wood and various polycarbonates in between. To find the right pick for the sound you're looking for, you must have a plethora of picks. You should experiment with different tips and thicknesses too. They will affect the tone just as much as the type of material.
- Pick style- They're will always be a debate about what's the best and most effective picking technique.
 1. Alternating
 2. Economy jazz style
 3. Classic finger style - well groomed nails serving as five picks at once.
 4. Hybrid pick and fingers (with and without nails)

Each style brings its own unique articulation. I suggest that you are familiar with as many picking styles as you can handle.

3. Strings-

1. Size- most common are
 - Acoustic- .011", .012", .013"
 - Electric - .009", .010", .011"

2. Material- stainless steel, nickel steel alloy, pure nickel, bronze.

3. Coated vs. non coated strings- I'm a big fan of Elixir strings!

4. Guitar body and neck-

- Acoustic-

1. Body size and types of material. (Common types are Spruce, Cedar, Maple, Mahogany, Rosewood, Ebony, Koa)
2. Scale length- common sizes are 24 $\frac{3}{4}$ ", 25", 25 $\frac{1}{2}$ " (as well as some others in between)
3. Also, the type of pickup it could have. (Sound hole, microphone, piezo, or a combination.)

- Electric-

1. Body woods- solid body or semi- hollow body (common types are Alder, Ash, Basswood, Mahogany, Maple)
2. Scale length- common sizes are 24 $\frac{3}{4}$ ", 25", 25 $\frac{1}{2}$ " (as well as some others in between)
3. Types of pickups
 - Single coil vs. humbuckers
 - Active vs. passive
 - Magnet types- alnico vs. ceramic
 - Electronic options- pickup selectors, toggle switches etc.
4. Bridge- stop tail piece, tremolo, trapeze type set up

- Neck and fret board

1. Material- Maple, Mahogany, Rosewood, and Ebony are the most common types.
2. Shape and size- scale length plays a part in this as well.
3. Bolt on or neck thru
4. Nut material
5. Tuners
6. Fret wire- size and material (nickel, steel etc.)

5. Amplification-

- Tube- Types of tubes can affect tone too. Common types are 12ax7 (pre amp tubes), 6L6 and EL34 (power amp tubes)
- Solid state, modeling, hybrid tube and modeling technology.
- Wattage- 10W, 30W, 50W, 100W. These all have BIG differences in tone especially at higher volumes.
- Speakers- 8", 10", 12"
- Combo amp or head and cabinet (stack amp)
- Cables- Length and material may differ. Tone can be affected by each especially in recording situations.
- For acoustic guitars you may be dealing with simply plugging into a PA.

6. Accessories- I believe that once the above items are explored and determined for your own paying needs then you can hone that sound with some great accessories like...

- Effects- Stomp box, rack, multi effects
- Power conditioners/ power strips/ surge protectors- Furman makes a great 6-outlet power strip (SS-6B Surge Block) that I recently bought for my gear. It's a surge protector with special noise attenuation. While practicing at home one day, I was running through an ordinary hardware store power strip. The tubes started making noise like tubes do. I plugged it in to the Furman and I didn't hear those little pops that you can get from tubes. I'm not suggesting it's a cure all for noise, but it did help.

Conclusion

Enjoy exploring all of the items I listed above. That's the fun about the guitar. Many things are unpredictable and many companies develop new trinkets and gadgets to try. There are so many possibilities for the guitar. Exploring those possibilities can be frustrating, overwhelming and yes, sometimes obsessive. But above all it's fun. I call it a disease that I hope there's never a cure for. Enjoy!