

Ted Greene: The Guitar Sound

Guitar Set-up and Build

- With guitar, it is not always about setup, but about touch. When you understand your touch you finally can get the setup right to what you want.
 - Where you play on the neck affects the sound greatly. This comes from string tone and knowing your shapes.
 - In conjunction you have to know the guitars limitations as well as your hand shape.
 - The hand shape, hand length, callus, nail, etc.
 - Some guitars aren't built to have great upper register comfort or tone (like a tele for example.)
- There will be times where you get tired of your sound. Some ways to start tweaking it would be to go to the amp and mix up the tremolo and reverb.
 - Solid body guitars (especially telecasters) like a little reverb on them
- Ted had very personalized setups (His gigging Tele (Esquire) was one of his most modded out ones.)
 - On his tele he has higher gauge (13 (sometimes 14)-58) strings that were nickel wound. Because of this he used thinner pickups to avoid a steel guitar sound.
 - The strings gave him the ability to tune lower
 - The tele had 3 pickups. DiMarzio Dual-Sound humbuckers in the neck and middle positions. He also replaced the stock bridge pickup with one from a 1954 model. Interestingly, Greene removed the pole pieces from a pair of stock Gibson humbuckers and installed them into the DiMarzio. He then lowered the neck and middle pickups (the neck being below the pickguard) and raised the pole pieces. This process was done to get rid of the mud sound while keeping that glass sparkle a tele gives.
 - He modded dozens of telecasters, which may be part of the reason fender went to him for help on a '52 reissue.
 - Many guitars have a flatwound 3rd string on them (not always on the tele's even though they sound nice)
 - AKA a plain 3rd string
- If the guitar has higher action, you will notice when barring chords that the g string is tricky to get a good sound out of (unless you press really hard). That has something to do not only with the action/bowing of the guitar but also your finger shape.
- When doing right hand work right on/near the neck it'll get you some great tones but will quickly corrode your wood. The technique comes with a sacrifice and it's up to you to feel if its worth it for the sound (with bolt on necks it's easier to replace).
- Strings also can cause great differences in tone. If you had 9s (even 10s without distortion) and rolled off the tone, you wouldn't hear anything (small string, small sound)

- Not only string size but fret location. Upper register playing (especially on lower strings) have warmer/mellower sounds.
- Electric guitars are very versatile instruments, especially when two pickups are on it.
 - Ted prefers using the neck pickup for its warmer tones. You can get a plethora of new sounds from string set, knob control, pick
 - usage, and plucking area (not even including amps).
 - Fender guitars have a cool versatility by how they are built. It not only gives opportunity for new tunings and vibrato shades but it also has pickups with a higher treble sound that have a percussive edge to them.
- Ted had the telecaster be used for a diverse number of stuff. He not only did jazz but classical music with it. It was versatile enough to be able to get those right tones/colors. That comes from pickups, and build for technical diversity. His teles also were able to have low tunings and high gauged strings.
 - Teles also showcase that Jazz tone can come from a bridge pickup (if you lay off the tone knob) and have a new kind of bite.
 - People recognize them for their thicker, trebly bridge pickup. It can even get glass breaking bright which (for its time of invention) was never done before.
 - Even with the tone rolled bac the bridge pickup can ring a barking, bright sound.
- Electric Guitars with a hollow body chamber you should back off on the volume a little bit. High volume on them can cause the sound to me muffled.
 - A pick in the middle of the body has a great edge to it.
 - When wanting a mellower comp/rhythm it should be closer to the neck.
 - Playing near the neck also has more punch since you're right over the neck pickup. This gives a wide range of tone/volume control. (especially good for backing singers)
- To get a great church organ sound use a telecaster with reverb (and tuned down). The Telecaster has great sustain to it.
- To get rid of nasal guitar sounds you should have an amp with manipulative mid range. Most guitars are mid range instruments anyhow. Older guitars also can help get rid of that nasal sound from lowering volume while the tone knob is low (also helps get a flurry of string to come though).
 - Even solid-state Peavey amps are great because they have great control of mid range.
 - No mid-range? Work with altering the treble and bass.
 - Some older black faced fender amps don't have mids, but have very clear/high trebles. In that case bringing the bass all the way out can help alve the highs and lower the non-existent mid range
- Suppressing the mid-range is nice because you can hear the strings more
 - With Jazz players like Charlie Christian however they boosted their mid range. The jazz guitarist wanted that pear shaped sound.

- The mid boost brings a lot of attention to articulation/ picking control (you can hear how you pick much clearer)
- Depending on what you own, you will face many tone/volume challenges. Some amps are tricky to work with (especially with no mid range control or bad reverb). If you have all nice equipment that challenge may be from the room. Rooms can be full of problems with acoustics
 - Reverb is always a nice touch. It may not always be the best sounding (cleanliness) but can still have a nice tone.
- When doing grooves, you may lose some of the cleanliness in tone (let alone technique). That's just part of it! Don't get too sad about it.
- Cable falls out when playing? Hold the ground right next to the shaft of the side going into the guitar. When you touch the shaft it won't make a horrible sound plugging it in.
- When choosing the right guitar, Ted reacted to the needs of the moment. This includes current mood, guitar comfort, timbre. He then would take a few guitars to test with an amp and would play a couple ideas while tweaking the guitar and amp. In that tweaking he would find a guitar with the perfect resonance with its volume, tone, and the amps setup.

Guitar Playing Technique

- Ted had a very specific technique with the Telecaster. For his vibrato, it originated out of neck pulling. With his tele (which can be applied to any thinner solid state body (the bolt on neck a big part of it too)) you use your right forearm and move it like a lever on the body. The trick is also to be subtle in technique by using both hands in the process. It's all trial and error with the guitar as the wood and set up calls for more/less forearm leverage. He also rests his horn of the tele behind the right knee as his leg is crossed over the left. This has you have more control over the guitar and gives your forearm a little help so you can be even more subtle and not have your hand shake as a result.
 - When asked about his vibrato he didn't even really realize his posture or right hand additions over time, it was just gradual adding (trial and error)
 - His original vibrato technique was having his left hand move very subtly side to side as a way to pull on the neck (no right hand).
 - Do not be worried about breaking your guitars neck if you pull on the neck a bit for vibrato (especially with a tele). The pull works from how the neck is built. It works well with fenders from its bolt on neck (because its trial and error you'll notice it doesn't take a lot of force to get the vibrato)
 - This WON'T WORK on hollow or semi hollow bodies. It won't really work on solid bodies without a bolt on neck either.
- When Ted used a hollow body guitar (occasionally his solid states too), he would bring his right leg across his left and place the hollowbody in the space between the

two legs (like it is boxed in). He would angle the body towards him as it was almost cradled (the left upper bout would rest slightly angled on his chest. For his right hand technique he was able to keep his arm and wrist straight and he did his various fingerstyle techniques. His left arm would also be relatively flat and it is angled up to the guitar. This is the best way to get all those upper register voices with the most comfort.

- If his leg got tired being crossed he either switched legs and used the same 'boxed in' premise, or he would leave the back bottom on the guitar on the upper thigh.
- Plucking will never be as powerful as strumming. This is from plucking being more of a grip like action while the strings vibrate up and down (the grip causes minimal vibration by its approach.)
 - With right hand strumming/plucking a lot of the sound comes from hand development many guys that don't use picks with a little nail have really calloused tips. This causes the plucking to sound more like a pick striking. The opposite goes for longer nails. While you have a more fleshy tip you have a diverse finger pallet with pick sounding nails and soft fingertips.
- Picks can really add a new level of sound into playing. You can play with a pick at different areas on the guitar and have it sound like different pickups are on.
 - In Jazz single lines, it helps bring defining pops.
 - Old Blues (Like T.Bone Walker) used to play right near the bridge
 - To get some good flute sounds you can pick near the neck.
- When you strike the strings with a pick (which you should use with rhythm) you should angle the pick a little so it gets a scraping sound. This imitates percussion. The motion from your arm should be greater too. (especially when there is no drummer)
 - With the pick angled this way, you can scuff up the side of the pick. If you want that sound be ready to file the pick side down to be smooth again.
 - The pick angled this way also gives a nice shimmer on slower tempos/bigger voiced chords.
 - If there is more volume of the guitar, it can be played a little dryer (not so much of an angled pick) as well as keep the strumming near the neck pickup (not so much arm motion)
 - Backing off volume a couple numbers in the guitar while raising the amp a hair can have the percussive pick side come out.
 - Downstairs (bridge) has more pick. Upstairs (neck) has more pickup/warmer.
- There are also all kinds of shades of sustain and percussive staccato to use.
 - For a nice warm percussive staccato, you don't need to strike hard with the right because the left hand doesn't have to hold the chord completely down. Wes had a little more strike in his right hand for his chord movements.

- Sustain is also pivotal to music. Not everything should be cut short. Listen to B3 players or bigbands. They had plenty of sustains.
- Guitar players should also be practicing in their head. One should be able to visualize the fretboard.
 - One should think in positions as well to be able to see all the options under their fingers.
- Music is kinesthetic, it's all practice. Sometimes your fingers get their own mind. While there are problems with that it won't have you stop during a piece/performance.
 - You can learn from aurallness or visual. If you can see the neck but not ear you can still learn how to play good music. Same with singing and being able to play what you sing (without being so confident on the fretboard)
 - With baroque improv you have to do 2-3 hours a day for the first week or so to build up the strength in your hands
 - You'll start to feel the heat in your hands as you play it.
 - Solo guitar is hard to do. It's not only just playing the chords but it's constant pressure with frequent motion in the hand, voices, and neck pulling all at once.
 - You have to, for any guitar practice, get blood to the hands (shake them out) and eat the right kinds of food (like grains for lasting energy)
- With fingerings over chords, a lot of it is trial and error for preference.
 - Know where the notes are on the guitar. That way it can have you think "What is the smoothest/best phrased way to play something?"
 - You have to decide fingerings based on where the music goes/position you play
 - Knowing all kinds of fingerings is helpful (such as 3rd finger barreing or the pinky barring upper notes). Even Van-eps played a chord with his nose!
 - Some fingerings come from process. If you had a root on top and wanted the closest notes to shape the chord you have to figure out through the lower strings what you want
 - Ex: D-6 (X-X-F-A-B-D) which has close fingerings from the root location and strings. Therefore, the formula for wanting a close minor 6th chord with root on top is b3-5-6-R. Use this example to think of other ways to voice with other intervals on the bottom (think as science guys not art guys)
 - With some chords, you will have to use one finger for two fingers. The Van-eps principle is a more common example but tip barreing (playing two lower notes with the flesh/tip of your finger) is still commonly used.
 - Tip barreing will take some time for your finger flesh to shape to. The width will change.
 - Be sure to know your hands. Some hands will screw up the 'correct fingerings' thus you need to find alternate ways for your hands.

- You can group chords to specific shape groups based off of the top or bottom note. You can then enrich chords (adding extensions) and change chord families (quality chord change)
 - Changing family in most cases (especially in Jazz) means having a chord quality become dominant.
 - Not the same as companion minors.
- There are multi-named chords on the guitar. A great practice is to take a guitar shape (especially one you know that has more than one name) and...
 - (with one root in mind) move the shape
 - Ex: E-7b5 (X-X-E-Bb-D-X). Move the shape up a major third and get the unaltered dominant. Thinking with this root can also have similar shapes (X-X-E-Bb-D-A) or (X-X-E-Bb-D-F#) and these also can move up a major third and all be heard as an E chord. If you then move another minor 3rd (or a 5th all together) you get the 11b9 (X-X-B-F-A-E). Up a 2nd from there (A major 6th) with that same shape as prior you have melodic minor and then another half step gives you the altered dominant. ALL are E chords
 - That 11b9 shape is a common voice grab in Naima (almost like a “spanish dominant or something”)
 - Take a chord shape and name all of the roots it has (Ones that audibly make sense).
- Being able to ‘roll’ your fingertips over strings to grab notes is a great technique for smoother lines and sounding like a horn. The exact tip of the finger should be on the lower string while the middle of the tip is more on the string below that. (the technique works great on 4ths.)
- With the right hand fingerstyle, it is all based on natural grip. The thumb always gets the lowest but the other fingers grab the other notes naturally (no matter the spacing)
 - This means the middle, ring, and pinky need to be strengthened so the whole process is easier and supportive. Try to strengthen those fingers for 5 minutes a day.
- Practice double stops, it’ll help build up chord speed. This is especially important in upper register playing or being in the process of transmuting notes.
 - Double stops are done with the tip of your finger (it will take practice)
- When wanting to play lighter and not be so stiff, you can break up (arpeggiate) the chord thus showcasing strong right hand individuality.
- You should always be able to see the root of the chord. Some guitar chord voices (like the 13b9 chord) has no root in the fingering. You have to be able to locate it on the fingerboard.
- Try to learn multiple chord formations all over the neck. Don’t let yourself fall in the rut.

When learning chords for chord solos, you may have to use your pinky for a lot of melodies.

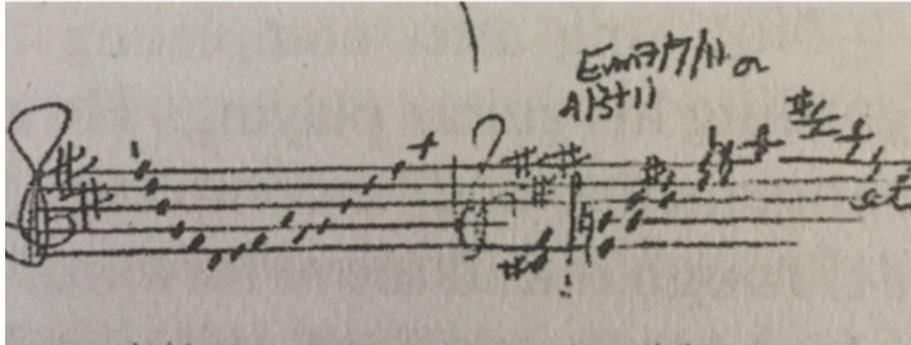
- Not everyone got into the NBA, meaning some stretches for voices can be very difficult and can only really be done with big hands.
 - Ted has moved the guitar to be more upright so he can grip some of the chords a little better
- There are multiple ways to shape the same chord of the guitar. You choose which one is best through voice leading (and tone), chord forms, and fingerings.
 - Ted liked fingerings that had you be able to slide and sustain the clearest. Sometimes that meant stretching the ring and pinky fingers a bit. This slide and sustain was decided through voice leading.
 - Much like Segovia scale fingerings, the tone of the strings plays a role in how you finger things. Tone is different on every string. The lower strings get fatter and muddier while higher strings get rounder and cleaner.
- To memorize chord forms you learn triads on 4 string sets with 3 places on each string set (inversions).
- For building Bach inspired 2 part diatonic harmonies, begin by playing the B and high E strings to help keep the notes close. This is also a practice (done by Bach) to help create implied chords. When stating this, keep the progression of these chords to the main harmonic pillars (I, IV, V). This can help later develop the concept of ‘call and response’ with bass melodies and ‘soprano’ melodies having a dialogue with the inner voices helping shape the chord (Van Eps also did a lot with this).
- Bach favored 3 voiced harmonies. Ted commonly shows 3 voiced chords with the melody 1 or 2 strings away from the other voices.
 - Bach, to best grasp his approach harmonies, organized the pillars IV, V, I
- If Bach was writing themes he would start on the I then go to either IV or V. Whichever one he didn’t grab he would go back and grab it later. To do that he commonly would put a I in between. (i-iv-i-V-i)

Ted's Guitar Heroes

- Wes Montgomery never played with a pinky really with solos. With octave runs Wes fingered it with every other finger (1 and 3 or 2 and 4) because his hands were big enough to cover it.
- Wes' right hand was more a strum like sound. He would not simply go across the strings but go down and across aiming more in the sound board. It's rounder with a bigger sound.
 - His thumb on single notes had a flapping sound when struck harder. It gives a different kind of pop.
 - There is a difference in horizontal and more angled inward thumb picking. When you press more inward and then release (with an arched hand (angled angled down wrist)) you get a new kind of attack. Its fuller in sound (hence why Wes played that way)
 - Wes could pick fast with a thumb sometimes. He could move it up and down to get notes. One way to relive that strain of overdoing it was slurring.
- Wes was primarily self taught. He had possibly a couple lessons for some tips. But he navigated the neck on his own and found the sounds in his head. Lots of these sounds really sound like a full big band.
 - He played a lot of colors and phrases that sound of parts in a big band. For example, he played a lot of small chords he learned to embellish from listening. This includes adding a 4th to a chord then hitting the chord again with the 4th going down to the 3rd. He later would go add to this by doing the same thing with the 9th to the root. (this 11th chord then going to the 'smaller'(not extension heavy) dominant 7 chord. He later realized those added tones make new chords (the companion minor) and was able to solo and comp with these added colors.
- Van Eps showcased the 5th finger principle. This has one play two different notes on different frets with the 1st finger. These frets are only a half stp apart and this technique is especially helpful with #11 chords by having the 1st finger play the root and #11. This works with various other voices too such as various 9th chord voicings.
 - The tip is on the lower string note and the 2nd digit (near the bone) gets the upper note. The trick to find how to lean the hand back to grab it.
- It took Breau years for his guitar voicings to expand. Prior to 1964 he was in his lower register with huge Tal Farlow based voicings. 1964 had him reach the middle of the neck bt heard higher sounding lines. That naturally motivated him to move higher on his neck to grab the line with mid sounding chords. He had small hands so he couldn't do crazy far stretches. From working with various chords he started to add smaller 2 note lower string comping chords with a melody on top (shell like voices). He then aimed for closer harmonies and started incorporating chime chords and harp harmonics.
 - You'll notice he had preferred keys for larger ranges and more variety with string groups (to not be too muddy or bright)

- His melodies were located on the mid/upper register on the neck. He could voice/use the chimes as he did on lower chords (like Chet Atkins would play). He took his Bill Evans inspired harmony to help move the chords higher up.
- He really dug 4th voicings
- He loved jazz piano comping (when the root wasn't in the bass)
 - He later developed the two handed piano comping by having upper string melodic lines and mid/lower string small voices.
- Lenny, as Ted learned when talking to him after a duo, loved listening and responding to the other musicians (especially the drummers). Listening to what the drummer did had Lenny want to react rhythmically similar as a response (new responses are made from focusing on different instruments).
- Fake 7 String Tuning: A-E-D-G-B-E. This is especially great because 6 string shapes have new qualities. The common 6th Chord shape (with root on the 6th string) now is a Major 9 chord. Good for the technique of Van Eps.
- When Wes Montgomery goes to play solos, he feels the rhythms differently. In 6/8 time Wes would feel in three groups of two while he would feel 6 in 4/4.
- Johnny Smith liked the sound of close voiced chords and made a trend in using short scale necks to better grab them.
- With many blues/early rock players, the rhythmic motifs layered on each other created a rhythmic counterpoint. Buddy Holly (for example) had this technique using downstroke picking primarily. .
- Lenny Breau was really trained in the intensity of the right hand. He strengthened all of the fingers in his right hand. That way he could play melodies with this ring and pinky fingers while he could grab chords with his other three. (at relative speeds)
 - His left hand was strong too as he studied Tal Farlow when he was getting into Jazz (who had big hands for large 6 note voices)
- Lenny Breau helped showcase various chime guitar and harp harmonic techniques. He would do this by having a finger hover over a fret above a chord in the left hand (commonly an octave or 6th from the note on that string (but he had tighter ones) and pluck with another finger. This was common with the index hover and the thumb plucking. Another pair would be the second finger and either the pinky or 3rd finger (or even 3rd and 4th finger as their own pair). The sound is like a double pickup
 - Lenny did 2-5 note guitar chime voices (commonly blocked)
 - Chime chords are blocked harmonics and Harp harmonics are arpeggiated chords
 - Two common ways Ted used this technique was using an octave harmonic on the bass note to have it create cluster voices (Lenny used this too to get Bill Evans voices) and having a 5-6 note chord playing the chimes with a harmonic followed by a plucked string
- This practice is discipline city. You can only watch one hand to focus on at a time and takes a lot of work. You have to know what you want for a sound.

- There are many good strategies to use this on. Some include position chordal playing, major pentatonics, or 2 note lines.
- A great practice (to get clean tones like Breau could) is do 2 line runs on the top 3 strings. You should practice one chime at a time then both. It's harder than it seems.
 - Those chimes should be 3rd, 6ths, or octaves away (if not tighter intervals.)
- *Ted Greene Lesson Notes from Joe Pass 7-25-1974*
 - Learn 3rd intervals in all scales and for all arpeggios



- Do far more chromatic back cyclings and b5 substitutions
- Be able to repeat any lick or idea instantly after
- Think vi07 in I-I07-ii-V pattern.

(A few) References

- Adam Stark Lesson 12-8-1997
- California Vintage Guitar Seminar 5-18-2003
- Musicians Institute Seminar 6-6-1993
- Musicians Institute Seminar 5-17-2005
- Nick Stasinos Lesson 8-27-1998
- Steve Herberman Lesson 6-26-1996
- Ted Greene Boulevard Music Seminar 8-22-04
- My Life With the Chord Chemist

Other notes written have come from personal analysis.