

The Notes of Ted Greene <https://tedgreene.com/teaching/default.asp>

“My main purpose in being here: Spread beauty, increase beauty, or increase appreciation for that which already exists here.”

“ I don’t always enjoy a challenge but I enjoy the fruits so I often meet them successfully”

- Some of the biggest influences to Ted Greene included is love of the blues, Gershwin, Wes Montgomery, Bach, George Van Eps
- Ted feels the telecaster is the most versatile guitar. He likes the comfort, better ability to retune (and stay in tune), and longer neck.
- Ted personally can’t stay/practice in one key for numerous songs over a period of time. It will lose freshness.
- To get hired you have to know how to play it. You can’t just explain why it works. You have to be able to play it and hear it.
- No matter how long you've played, you’ll get yourself in trouble when you take risks.
- Many people come in working on ‘their modes’. What people have a problem with is that they see modes as chords from another key. That's not necessarily wrong stuff but it’s not right (many feel they just have to learn it.)
 - When teaching/playing with people, you’ll see many are full of knowledge and concepts with playing music. Normally it's all good stuff but it can inhibit one from seeing that everything is every key.
 - You'll have to learn what they want to learn. Sometimes they say they need to learn things they don't love, and that is ridiculous!
- (Quote on teaching) “But every single person is unique so I always adjust everything to fit them, that is, according to their dreams, what sounds they want to make, what situations they have or hope to have in their lives, their particular relevant strengths and weaknesses, and the ways in which they learn best.”

Harmony and History

- Music become music when melodic and rhythmic concepts are added to sound. These sounds have to move as well to make the ears feel hunger.
- All modes are sounds. Every kind of key is an equal partner in the harmonic rainbow. Each modes have their own individual shades.
 - Dorian has some brighter shades than natural minor. The 2nd chord is much less dark because it has that raised 6th in minor. It causes a IV which is a huge characteristic.
 - Aeolian is the natural minor, that lowered 6th creating a VI is a huge characteristic trait. However the iv also is a big trait for having the key sounding ‘sadder’
- Ted doesn’t get depressed over music, or feel sad or happy with different keys. The chords result in feels strong feelings that can't be described.
- D-6/9 is the chord of mystery. It has this intense ‘sad’ feeling to it that can help shape that more intense ‘sadness’.
- A 13sus chord is a great resolution chord (esp. in Jazz).

- To get to an 11th chord good you take a dominant 7th (with 9th) chord and move the third a half step up.
- You have to understand how chords were conceived. Stacked 4ths, for example, were conceived by lines that were made. McCoy Tyner and other pianists showcase that technique of chords being made from lines (Tyner with stacked 4th and how its shape is moved in steps/chromatic)
 - Conceived from lines can mean that the chord isn't really an individual chord but rather part of the bigger picture.
- If you have a chord that has a 9th or a 4th, that doesn't mean it is an added or suspended. Suspensions have to be prepared from other chords prior and resolve. Added tones are colors that are added the chord. Commonly guitarists have bumped chords, meaning the 3rd of the chord is bumped into a new tone (normally the 9th, 5th, or 4th. These chords are a little more hollow (but big in the 80s-90s in rock)
- When hearing lines, or other notes outside the diatonic scale that doesn't mean you're leaving that key. You're leaving the diatonic framework, NOT the key. (ie lines that have chromatic notes causing movement).
 - Why play those notes? It's fun to play them
 - When only given one line, you can't say what the key is. There's not enough given to tell you that, especially when the notes are outside diatonic frameworks.
- There's all kinds of different notes in the key center that can be used. That shows that being in a key doesn't mean being in a diatonic scale. There's no longer one scale providing the harmony.
 - Sometimes being in a key center can have one play brighter and darker minor shades. This gives some more harmonic shape.
 - Key center or diatonics are both fine ways to play music. They are just options.
- When writing music, all notes have an ability to be in it. The more dissonant/illogical ones can be mixed in through buried dissonance by close harmony. This can be done by keeping the more dissonant notes in mid-voices rather than outer voices.
 - No interval is a bad one when you know how to put the right notes to wrap/cover it
 - In music, making wrong musical choices is small and progressively narrows when you look into it.
 - If one chord creates a strange interval that can clash on the melody, you could play the chord quieter or have one note of the chord move to dilute it
- Oliver Nelson would voice horns in 4 parts close to each other. However he voiced them through close harmony (hip chords) rather than static/diatonic colors (Close Harmony)

- Nelson in ‘Stolen Moments’, on those first few chords, used close harmony. On the second chord, it feels a V in function but it has a the raised 3rd (ex. C# in A minor) which is the farthest note from a minor key to pick.
 - However this showcases that all notes are valued in the key center when voiced right. It’s buried dissonance
- Key means the center, ALL THINGS ARE IN EVERY KEY.
- There is a strategy for every note to be included. This involves adding the right kinds of notes to help soften it.
- When starting to harmonize chords, add a bass line 1st. A safe way to do it is to use notes from the diatonic key. If it causes some strange intervals try to add the right kind of voices/chord inversions to lessen the blow.
 - Bass is definitely generating the harmony
 - From there you can build up from I, IV, and V and their inversions
 - Open triads will then help
- When wanting to reharmonize keys it all comes with one’s inclination.
 - If you have a song that only has I and V, start with adding smaller fills of IV. If you want a little more blues you can lead back to I from a small IV by using bIII.
- The primal level above the triad are 6th and 7th chords. There are seven kinds that dominated the history of western music
 - Dominant 7th, Minor 7th, Minor 7 b5 (Half diminished 7th), Fully diminished 7th (Can be spelled Minor 6th flat 5), Minor 6th, Major 6th, Major 7th
- When writing music the order should be: Melody, Bass Line, filler notes.
- When building up harmony, if one wanted a more diatonic/Bach-like approach, work with two voices to help shape implied chords while using motifs/themes.
 - The upper two strings of a guitar is a good place to start trying this concept out. (Study Bach in general too, he really was good with diatonic harmony and counterpoint)
 - A lot of that improv/writing Bach used was working on the core pillar (I, IV, V) while using various voices/inversions.
- When improvising pieces you have to think in different ways. Sometimes you’ll have to base your movement on the bass note, other a melody, others through chords. You should not think consistently in one manner however.
 - Bach always thought of IV-V-I as a way to help create approaching harmony. Bach would create a statement on the tonic and then move to a IV or V. He would get the chord he didn’t pick soon after. Bach also had scale-like chromatic movement. We could see it as scale degrees or specific scales but even those would be altered. Sometimes what we see as a melodic minor scale is altered in Bach’s playing. He also tried to avoid just playing the straight stepwise scale patterns. He ‘broke many rules’ that are seen in books today to shape his music.

- That IV-V-I has targeted harmony on new approached tonics (which is best shown through inner voices). Bach has this done commonly with descending lines going through a cycle of 6ths (diatonic to the original key center).
 - Bach also loved using 1st inversions on the IV and V.
 - If you do think in chords, it can be by quality (voice leading) or progressions.
 - ii-Vs are always appealing to the ear. The key is to have a nice resolution chord. In minor, Ted prefers the minor 6th. (been in jazz since the late 50s.)
 - Be sure to add b9s to those ii-Vs (or in
- Remember that each chord has its own scale. That doesn't mean it has only 1. Some chords can take up to 4 or 5 different scales.
- The harmonic rainbow can be organized. The 1st way to organize is by Era.
 - Example of this are the perfect intervals being from ancient times. It's crazy that these old sounds have made a comeback through rock music (power chords)
 - Chords that have all perfect intervals are great for tuning. It also gives some direction in establishing keys.
- Far back to ancient times, the only real music out there was really built up with parallel 5ths. "They didn't even have yellow, I think." Societies fought over the rest of the notes being used/organized. They didn't know how to organize notes without some sort of full-scale configuration. Some were killed for using audacious notes (like the 3rd). It proved that people have a lot of growing to do
 - Right now the note being fought for acceptance is the minor ninth (octave plus half step) intervals. This may not ever be a common thing to use because it's the only interval not included in the overtone series.
- During classical eras, tuning was more well-tempered. This meant the key the instrument was tuned to have a very rich sounding harmony in its original key. The key was the tuning center, meaning key changes could sound really out of tune if you go too far from the original key. Normally they key would modulate with one accidental difference.
 - Classical musicians wanted the richest, most in tune chords in their playing. Hence the use of the well-tempered system (Bach is a famous example)
- Many techniques and songs were recreated generations later. One example is 'Aura Lee' and 'Love Me Tender'
 - Some songs were reharmonized with generation as well (showcasing newer genres interpretations). That may include new voicings, rhythms, harmonic rhythm, etc.
- Thinking more in the context of the early 2000s, country was becoming big again (and it loves triads). Blues has its spikes in popularity. Jazz has always been the lesser popular commercially but that never means it left.

- Jazz likes to “think above the 7th chord”. Jazz didn’t want to just think in triads and wanted to add more color. Hence why Be-boper’s brought more extensions in like the 9, 11th, and 13th. These colors came from french impressionist music. (Chord enrichment)
 - Since the late 80s, adding 11th chords became a huge thing. They were everywhere (esp. In the 90s). Many people like the sound now. Before it was a color that wasn't allowed to really exist.
 - Other chord tones were loved by musicians, such as the b6 to John Lennon
 - Lydian nowadays (as of 2003) was a loved key. Those tones can have something amazing form out of it. However, classical composers never thought in lydian. Rather, they used those sounds as modulation (the scale was really a new major key change)
 - Music has ways of having genres overlap each other. Chuck Berry would (on his lower strings) do rhythmic and harmonic overlaps on his rhythm and it is an example of rhythmic counterpoint! Rock (before it was its own thing with straight eighths) it has swing elements. But those rhythmic counterpoint ideas are constantly shaped through layering rhythmic motifs.
 - Early Rock and Roll upright bass players also had counter rhythms with their slap technique.
 - Harmony over the harmonic rainbow that’s not contemporary doesn’t mean it’s valueless, but rather that it is no longer as cutting of a voice (ie Major 7th).
 - This also can go for scales too. Harmonic minor is great, but it doesn't work in Jazz that well. It's not too hip.
 - The Modes aren’t really modes in modern day anymore. They are not shades under the harmonic rainbow.
 - The ‘hypo’ version to a scale is when the root of the original scale is in the middle (the 4th ascending note in hypo form)
 - The new 1st note in the hypo scale is not the new root.
 - Sometimes changing one notes makes all the difference.
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- In Jazz harmony is thought about as chord approach theory. This means there are key chords (that help shape phrases) that have chords prior leading up to target it. These chords are commonly added chords with many being chromatically above or a fifth away from the target chord. The chords give movement but are not necessary to the tune.
 - With many chord progressions you can add chords intervallically a half step up from the target chord. If not a whole chord itself, the key to this concept is targeting the chord with chromatics (normally done in the bass to get to the new root). You could play a half step above or below a chord. That is all up to preference.
 - The best way to use the half tep approach is if the half step chord used to target is a dominant 7th chord. With some the same quality chord also can work, but when you do that it can get boring. A great way to fix that is to give contrary motion in the soprano line or inner part.

- Any Dominant 7th chord has a strong affinity to a Minor 7th chord whose root is a fifth away (And vice versa) (Ex: Bb7 and F-7). This is also called the companion minor concept. We used it all the time.
- There are chord substitutions whose root is a b5 higher. This can get you out of the same static progressions with more chromatic movement
 - Ex: a Minor 7th can be replaced with a Dom 7th a flat 5 higher (EX: A-7 becomes Eb7)
 - Ex: a Dominant 7th chord can be replaced with a Dom 7th a flat 5 higher (G7 becomes Db7)
- With a major tonic chord, a Minor 7th or Dom 7th a 3rd higher can be played. This can help smoothen the progression more chromatically. The Vice Versa can also be done (playing a Major 7 a 3rd below the Dominant 7th)
- One sub for a Minor 7th chord can be from a 13sus chord (companion Dominant chord) that's a fifth below (Ex: C-7 becomes F13sus)
- Especially as one gets older, knowing the letter names over the roman numeral numbers is easier for immediate translation. One can get lost in the number system much faster. The ear will also be a great help. When you train your hear and sing your chord (arpeggio from high to low) you will be able to learn tunes faster and select chords you think in your head faster.
- When working in more open-ended harmony, it is all up to the ear for if a modulation occurred or not. Sometimes it can be more of a new harmonic direction. That direction can come from cultural norms (such as mediterranean or Spanish harmonic norms)
 - I.E being in a key with a major seventh having new harmonic direction that introduces a flattened seventh can be a tough argue of being in a same key. The way to fix it is from mixing various cultures' usage of harmony (such as introducing the spanish norm of a 7b5 chord that's a half step above the tonic chord or a 5th above the tonic chord to help show the re-raised 7th)
- With some of these cultures, harmonic western norms are introduced to new ways of looking at harmony
 - With Gypsy music, one scale commonly used is like major scale except a flattened 2nd and flattened 6th. Ex. C Db E F G Ab B (real non-american)
- Many of these other cultures scales and chords are heard by Americans as modulations, but are really expanded diatonic root tones. It's not always a tritone sub (the old/traditional American way to analyze some of these chords) but in fact a norm for some cultures.
- Some cultures have vast musical changes. Others, even though they are miles apart, have very similar styles. An example of similarity comes from Italian lute and Mexican guitar music. The key difference comes from the percussive accenting Mexico has.
 - French has the stereotype of waltzes with flamboyant like vocals with accordion inspired music.

- You'll never hear in french music blue chords like a 7#9
 - Yes. A Dominant 7th chord can be a tonic chord and be its own key sometimes. Jazz does it all the time and so do the Rolling Stones, Elvis, and The Beatles.
 - America has many songs that are in a Dominant key. It's smack in the middle of major and minor keys.
 - Dominant key AKA the Blue tone key
 - Similarly with that kind of music you need the #9. Some call it a flat 3rd but the difference is in the sound. Flat 3rd makes the minor sound. It brings a mournfulness to music, including the blues (especially in churches (gospel blues)). It becomes a #9 because of the chord it comes from. The 7th chord. The 7th chord has a 3rd, not a flat 3rd (hence the #9).
 - The 7#9 chord can be build like an altered blues scale having R-#9-3-b7, meaning the Blues scale was shrunk having the b3 become looked at as its enharmonic and replacing the perfect intervals with the 3rd. This all is seen as an altered dominant chord thats Tonic in function which may be strange to some scholars who feel altered chords are only on the V.
 - But when adding the b2 and b6 from the gypsy scale you get a mix becoming a Gypsy Blues Scale (R-b2-#2-3-b6-b7). This is useful on dominant altered chords/ You have to play it at the right times in Jazz, like a I7 about to go to a IV7 (esp. in a blues).
 - This scale is almost like what many would call an Altered Dominant scale without the b5. Wes Montgomery actually played phrases based out of those intervals over tunes.
 - Joe Pass did similar
- The Blusey-est sounding dominant chord in a minor key is the bVI
- There are many chords that can resemble the same home function. For example a iii is a home function (it's like a I chord). Bebop (in the 40s) thought this way and since they thought so smoothly about chords, they would target home chords nearby. This is why the b5 sub was so huge.
 - Guys afterward played colorful chords it (they added 9ths)
- With some chords they can be classified as the same even if the quality changes. This is because some changes are so subtle in sound it really doesn't cause any difference to the movement of the tune.
 - Ex: Minor 11th and Dominant 11th had a note difference, but it is not impactful in change unlike switching major to minor.

Guitar: Technique and Setup

- 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 bold on neck (because its trial and error you'll notice it doesn't take alot 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 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 way 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.
- 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 guitar affects the sound greatly.
 - 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.)

- 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.
- 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
- 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.
- 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.

- 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.
- 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.
- With the telecaster Ted had it 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 ptone 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)
- 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
- 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 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.

- 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) mean 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 chordss
 - 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 to better sound 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 can be 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.
- 13b9 chords (as commonly voiced on guitar) don’t have the root in the actual chord, but you should be able to see the root near the chord. This goes for all chord voicings with a lack of the root being played.
- 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 step 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.
- 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 progressions 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)
- Bach loved using the 6th. In chordal movement he used it as a half step embellishment commonly. He used both the b6th (like in natural) and 6th (like in melodic). The 6th was used mainly on the i when it was ascending.
 - Sometimes the 6th (in melodic) would even go back down! That was more typical on the V. The b6 also was used similarly. He even would try to avoid them too in his descending lines. Bach wanted to not always do the same thing. He wanted to have both disjunct and conjunct lines to go in new directions
 - Once those outer lines are established the inner lines will smoothly follow focusing on approaching. That where you see the IV V I approach.
- Bach also liked to alter the tonic by making it dominant so it has the key of IV and use that concept to play in cycle of 4ths/move in whole steps for modulation (especially in organ music)
 - Ex: D- (use D7) G (use G7) C-. You used the cycle of 4ths to move your key down a whole step
- 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 in three groups of two while he would feel 6 in 4/4.

- Wes over a dominant 7th chord would commonly play the companion minor (Ex: On Bb7, Wes would play F-7) and would take phrases from both chords. In chord solos Wes would normally play numerous inversions of the two chords mixing from one to the other to make ascending and descending lines but maintaining the function/sound.
 - Therefore, the principle is that any Dominant 7th chord has a strong affinity to a Minor 7th chord whose root is a fifth away (And vice versa)
- Johnny Smith liked the sound and made a trend in using short scale necks to better form close voiced chords.
- 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.
 - The Beatles took inspiration from Buddy Holly and the Everly Brothers in their rhythmic and guitar technique.
- You should study rhythm and feel. It takes practice and studying to get the rhythmic feel you want from your heart. It doesn't just come out.
- 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)

- 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 but 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).
- When playing with a piano you can showcase so many ideas (bass+chords, various substitutions, big voices) because you are second fiddle to piano and may get some dirty looks
 - With only a bass player, you can comp more actively.
- When playing with a bass it is pivotal you don't start doing your own walking bass lines as you comp. The bassist is going to kill you.
 - The voices you use however can be shaped out of the bassists walking direction.
 - When playing substitutions, you can start to lead the bassists ear to a direction you wanted to go in harmonically (you might have to show the bass some of the substitutions however).
- When soloing with single notes, you mix using scale and arpeggio ideas by using chord form ideas and other 'exotic' colors such as gypsy inspired scales and mixing between keys (such as dorian and aeolian for example) to get the sound YOU want.
- Ted used single soloing with rhythmic contexts. He could play in more eighth note styles and more in durlonged rhythms all depending on who he's playing with, the song, and the accompaniment groove. His eighths still swung but were proportionate (straight) while he also altered his style to mimic various players for the best sound on a tune.

- Playing solo guitar means you will have bass motions. When heavier bass lines occur (esp. without chords on-top) you can use your index and thumb to play the notes closer to the neck (while the chords are played more at the middle or bridge).
 - The bass doesn't have to always play different notes on each beat. You can repeat tones for a couple beats so it is not as strenuous on your guitar playing.
 - When walking there is a lot of trial and error. After experimenting you will start to better hear if you should use chromatic targeting or scale wise.
 - While you have to obviously remember the form, the groove is more important than constantly thinking of chord and bass movement. If you focus too much you lose the groove of the piece. Trust your judgement of the ears to help guide you.
 - The ability to move bass comes with internalizing chord structure for your bass lines and having it be almost automatic.
- You need to learn chord tones. If you can those chord tones on the lower two strings(which takes a long time of studying) you'll realize there are 2 sets of 4 pairs for any chord
 - Those give you bass note target notes. You could grab then from a half step below or by scalewise (the goal is get the target note with groove).
 - This gives activity
- 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
- Comping is feeling the full beats but punctuated by accenting a few notes within each measure (not playing every beat). Comping comes from the word accompaniment.
- With comping, be able to hear and feel the bass.
- With chord solos or solo accompaniment, have the bass have some motion. That's not always a walking bass however.
- Chords can be shaped out of the bass motion. To best do this you have to know inversions. Inversions are a "whole big study".
 - Bass Line Progressions have chords take on new voicings while, in most cases, the bass connects these moving voices together with NCT.
- A ghost note is a note that is almost indiscernible. This can be used in helping move chords to new areas (by rhythmic movement). It prevents the jumpy intervals chord tones give. (AKA complimentary noise)

- With solo guitar with walking bass, use your first finger to hit an open string fast to get a percussive hit. Another way is to have the left hand pull off the string. That's more intense without it being as noisy
- Don't go crazy with this.
- To do syncopations with solo guitar (accomp or chord solo) you have the bass stay on beat while accenting the upper notes on fewer, weaker beats
- Another great way to incorporate syncopation is quarter note triplets. Adding that into other accompaniment styles can open up a lot of techniques to mix into playing progressions.
- To comp in a Jazz waltz, you could play three in bass while playing groups of two in upper chord (anticipation). You could also play the rhythm having the notes being played on the 1st and 3rd triplet of 1, the 3rd triplet of 2, and the 1st triplet of 3.
 - When building this feel you will be able to find other ways to rhythmically play it.
- Sometimes when walking the bass you can fracture it, meaning you play on the 'and'.
- When walking chords, besides just playing a chord on each beat the same duration (more ballad-time) you can get liveliness from keeping that bass but mixing durations/syncopating the upper chords.
- When comping and doing a bassline you can think like a big band. The bass walks as your upper notes act like horns with hits. (the key is the groove)
 - Think of piano or horn figures
 - There are only three kinds of hits with beats.
 - On the beat
 - After the beat
 - Before the beat (trickier of the three)
- When playing a more rock-blues, in guitar friendly keys (D, A, E especially) you can use the open strings as added color
- With Brazilian music, you have to have the right color (brighter/7thy) while also having a light touch to their rhythms (with a cut time backbone). The bass, while on 1 and 3, also had rhythmic anticipations
 - American attempts still have the cut time feel in the bass note but they put in on beats 1 and 3.
- To lay down the rhythm, NOT COMPING, you strum the quarter notes while putting more drive into beats 2 and 4. The non driven strumming normally occur on the 5th-3rd string (lower strings) so the higher notes on 2 and 4 are seen with more drive.
 - You could do more loose 8ths or loose quarters
 - Play with some chords being syncopated (Esp. on 2 or 4) or anticipated.
 - Anticipations should be strummed with upstrokes.
 - With Latin, you strum the rhythm in eighths but only on the 'and' of 1, the 'and' of 2, the '3 +' of 3, and the 'and' of 4 do you hear the notes (Dampen the rest)

- To best 2 and 4, the right hand should be almost chugging with the base of the hand (the bud of the hand) and the pick at the same time.
 - The Notes being played (not dampened) can be mixed up with some different patterns too
- 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.

Tunes and Techniques

- ‘There’s my “ What They’ll Work On” setup, the ‘Big Four’ in this regard : What STYLE of Music, what FORMAT, which of course will require what SKILLS, which will in turn necessitate them learning what TOOLS ?’
- Herbie Hancock said there are three things to playing
 - You can let your mind run the song
 - You can let your hands run the song
 - You can let the ears run the song
- You know you learned a song when you can play it while keeping conversation.
- With fakebook material, you have to really analyze the arrangement of pieces. Some chords are added in as extra color/movement but isn't part of the needed structure. When you understand the bare structure then you can start putting in substitutions for the written chords. When you learn the true rawest form of the tune you realize the fakebook chart is a beginning.
 - When you get the basic form you can alter the chord qualities (especially for solo cases)
 - A-7 in a fakebook could be played as A7, A-7b5, A-6 (rarer), A-7#5
 - It all is prone to the sound you are hearing in your head.
 - The extra chords commonly are subs a half step away from the preceding chord or a 5th from the main chord
 - When adding your own chord subs, try some contrary motion. Have the bass or soprano of the chords move contrary to the next. This concept is best effective when the added and target chords are the same quality
 - Ex: Besides F (A-7) G-7 C7 have the A-7 become Ab-11
 - (Ab-x-Gb-Cb-Db-x) to (G-x-F-Bb-D-x)
 - When working on chords on tunes you’ll realize the key you choose with change the voicings/fingerings you choose too. The same voicings in one key may not worked transposed in another. This can be because of resonance with the string (and how its tuned) or string availability
 - When learning the raw chart you have the ability to break out of the basic progressions and rhythmic feel the tunes are known for. You now have an ability to revoice chords and cause new movements by playing tunes in various styles. Don’t be scared to mix styles in each other for the tune.
 - Ted loved playing in an american style (more blues/string bend based) when not doing some Bach inspired movement
 - You could play Autumn Leaves as Baroque or a rubato ballad
 - You can play Manha de Carnival as a ballad or as a latin piece (or in a ‘full band’ style of Breau)
- When practicing concepts, lines, and progressions, practice them going down. Most music descends and ascending is much easier.

- When practicing improvisation you will find many new ideas come out from it. Sometimes there will be many. The only real way to remember them is to write them all out.
 - While improvising you will have a point of focus. For some it could be the key, others the bass motion, others the melody motion.
 - You can even put the melody in the bass part and find even more ideas. (This is harder than it seems).
 - The key is dialogue. No matter how you think you have to be happy with the sounds. Sometimes to get the best dialogue you need to prioritize other concepts (such as chords rather than melody)
- To best memorize tunes you should memorize roadmaps.
 - Memorize keys and the 12 notes relation in the key. When you memorize keys the notes/numbers come to you faster
 - Memorize (if not the interval) the distance within tunes.
- Sometimes when playing melodies try to take over too much and chords don't know what to do for voicings (especially over blues forms). Sometimes it's the opposite.
- "Practice slowly, very slowly if need be, on anything that is difficult or not sounding right. And listen very carefully to yourself to hear what you are doing well and what you are not. Tape your playing from time to time. But don't always listen back immediately. Give it a day or two. It can be a real eye-opener. The tape doesn't lie. Just us humans do, sometimes to ourselves. Don't do it, it's a trap that will keep a person from ever getting really good on their instrument."
- With many standards there is a cycle of fourths (of fifths) progression. To stay within the original key center composers alter the cycle and add an augmented fourth (dim 5th) and then continue in P4ths. This alteration occurs normally heading into the ii of the key.
- Bassists; especially during cut-time, half time, or half note bass lines; will use push notes (pretty much just ghost notes in sound) to give a little rhythmic movement to keep pushing the music forward and to also not have a boring part.
 - Ghost notes are always available. Don't over use it though.
 - When walking, really think of direction (use scales to help move in the key with chromatics)
- When working with a singer, you shouldn't feel scared and stay playing in a Freddie Green Style (three note voiced, time keeping rhythm). You can work with more voices and range to compliment what they are doing. Most of time you won't be in the way nor will they care what you play too much (just don't go overboard). The added voices or rhythmic variation won't ruin the vocalist's tone either. Their tone is far different than what an instrument does.
 - Don't feel bad adding more walking bass or 4 voice colors

- The reason why Jazz songs are in flat keys a lot of the time is because horns have lead the genre melodically. Because Jazz is really a melodic art form, the horns therefore had the most say.
- For a time, before the music of Gershwin was around, the Dixieland style jazz was focused on the groove and rhythm (like with simultaneous group improv), not the harmony as much. Therefore, with more Gershwin era Style music you have to play some more pretty tones.
 - That comes with extensions and chord substitutions. Especially with dominant 7th chords, the subs share the same inner voices with outer voice changes from one another. However those outer notes help target the next chord.
- The blue note is really when you almost bend into the major 3rd (right in-between minor and major. The note is bent normally from the #9 (enharmonic to b3).
 - It's considered #9 because of the major 3rd already existing in the 7th chord.
- When thinking of melodic patterns should be thought of through scales. However you shouldn't think of scales solely. However some impromptu moments should have a reference from the bass movement or melody. The goal is dialogue being created.
 - This is not only huge in Jazz but integral to Baroque improvisation.
- The Blues has many different styles and forms:
 - The traditional blues has only 3 chords in it. Where do you go from there?
 - When you start to expand out from it, be sure to know the setting. Certain styles of Blues don't really vibe with other blues' rhythms/chords. No 11th/13th chords are read in a Chicago Blues book
 - However, if the label looks too fancy but sounds good with the style keep it in there! It's the sound that counts anyway.
- You can add colors to it so it moves better (there are a lot of dry spots). Place a chord in between the I (around measures 3 and 4). When you move to the IV maybe you add a IV7/IV7. From there you can add Wes like sub chords and use the v-7/I to mix/move with the I at measure 7. Measure 8 you can move to the VI7 and blend it with its minor v sub.
 - Dominants love their companion minor v sub. It is like adding an 11th to the chord.
 - Adding color can also mean embellishing the chord color, not necessarily adding more chords.
 - Color changes can also come from the scale. In the 2nd half of the blues you can incorporate tones from the major scale rather than focusing though the mixolydian (especially when using 4th cycles)
 - With cycle movement, the best place for it is on the 2nd half
 - 6. I-IV 7. iii-vi 8. ii 9. V
 - The vii was not used because it shares a lot of the tones on the IV7 (if all chords were in dominant chord quality)
 - 8. ii-bV7/ii (half step away from V) 9. V

- B- F7 E7

- You can start incorporating Augmented and Diminished chords with Scale degree 1 as the root of all of them. And help make movement through the I or even at measure 6.
 - Petal bass also can work too (optional).
- Sometimes you'll hear chords that don't really feel like a blues (such as a sus 2 add 6 chord or a major 7 chord). However, when the vocalist comes in with one of the 3 blues vocal statements it still can work! The right vocalist can have you stretch the boundary.
- When you take a mixolydian scale, the most stable blues scale, you can alter it to have chromatic tones that embellish/showcase a blues. One way to do it is bending notes to get the bluesy vibes. Using that on the 3rds have blue note embellishments form. These can be used as neighbor or passing tones. These tones can help during the tonic and build tensions. These tones can be used anytime on the tune (from setting it up to solo lines)
 - From there, take that scale and chromatic additions to help shape your horn like phrases (comes out of chord tones and chromatic half step approaches)
 - Intervallic patterns with half step approach also work (especially patterns on 5ths)
- On tunes such as 'A Foggy Day' watch out for overusing the I-vi-ii-V progression. If you don't try to revoice lead it or use substitutions (ie two chords chromatically going to a V7/V then the V) it's gonna sound repetitive and boring quickly.
 - Variants in rhythm are also necessary. Comping should feel free rhythmically.
- Rhythm Changes is a tune commonly played nowadays in Bb. Back on the east coast it used to be Bb, F, or G most commonly seen.
 - The B section has a iii-vi-ii-V in all dominant 7th qualities. (I.e. Bb: D7-G7-C7-F7). The chords are changed in quality by morphing the chord, aka moving one note in the chord.
 - The root of the chords is pivotal in how the song harmonically moves. It showcases the style of Jazz at the time and how the the roots of the chords were 'falling', or descending, and falling lines inside the chords while remembering the melody.
 - The way to guide the chords is to play the inner notes (commonly the 3rd and 7th in the middle string set to sound 'hip.') These inner notes could be inverted and changed too to fit all over the neck and are based from common guitar shapes. (These inner notes are also called guide tones)
 - Lenny Breau and Barney Kessel (for a time) helped bring these guide tones into the jazz field.
 - While using those inner notes, you can start remodeling the outer voices to use dominant 7 chord subs a flat 5 away or a half step away from the target chord. Another way you could do it is to use the

companion minor, where you play (if the given chord is a dominant 7) a minor 7th a fifth above.

- The tune 'All Blues' The second chord in the 3 chord intro (after the G7) could be either D-9 or A-7 then a B-7b5(D-6). The tune comes out of the Mixolydian scale. Not because its a mode of C, but because its G with a bluesy sound from the F note. It's not Mixolydian mode, it's mixolydian sound. Because that opening vamp/melody is three notes, there i so much potential to revoice it (with new chord extensions, clusters, replacing the 3rd with the 9ths,etc).
 - Remember, a mode is a displayed scale where you think some other tone is the parent. Its when you hear it as a branch off of a scale by starting in a new spot.
 - Thinking of it as a sound, or valid tonality, means its a scale thinking of itself (no parent). That's how Coltrane thought through it (Miles and Bill Evans too).
 - A cool voicing for A minor is (X-G-B-C(-E-A))
 - A cool voicing for the D-6 could be a D-9 (X-A-C-E-F-X) or (C-X-A-E-F-X). The both may look strange but that come out of the key.
 - You could reharmonize and move the voices the other way. That can create a new 3rd chord now a V altered (X-X-F#-Bb-C-F) which means you could also produce a D7#9 as the 3rd chord.
- 'Hark! The Herald angels sing' may have been written by Mendelssohn
 - The song, harmonized, works really well with 3-4 note voicings.
- With more baroque based improvisation the key to knowing where your fingers go for chords and independent motion is from the scale. Know the scale.
 - Van Eps books hel give you solid chord shapes/figures in various keys. From there you should practice decorating them then move to dialogue.
 - The key for scale knowledge/thinking should prioritized when doing various melodic patterns
 - Adding voices comes from many exercises in the area to be able to start naturally adding concepts.
 - The trick is to be able to mix concepts into playing. If you're in minor for example you can mix concepts of melodic, natural, or harmonic minor for different shades/pulls.
 - However some impromptu moments should have a reference from the bass movement or melody. The goal is dialogue being created.
- You should have a concept of reference. You can focus on the melody (top line), the bass, or even chords (in rarer cases). Each way of thinking has the music move in different ways.
 - The lowest note can be on the 3rd string. It's still the bass note.

- To think in chords can be by specific voicings you want to guide you OR progressions
 - Ex. i V i-7 IV iv i V/V V (that's just one option). Bass lines can alter the voices moving.
 - You can alter the chord quality from the bass movement
 - Ex: the i-7 in the example above could be a V7/iv and then have the iv become a viio passing.
 - In the song was in a: a- E A7 F#o d- a- B E
- Ted uses his telecaster more for this music in conjunction with reverb (to kill some of the guitar sound)
- When thinking out of a key with improv there will be one note that is able to connect chords and cause the modulation point (transmutation)
 - Or you can alter notes in scales to move to new chords/keys. For example if you flat the 2 in a minor key it makes you move to the iv. (You phrase it through i V/iv iv)
- For many times he wants to modulate he thinks very Bach like and goes through cycles.
 - With some church organ inspired lines Ted thought of progressing in 4ths while based out of one key (goes through the cycle up to a point to stay in key.)
- Bach would commonly think of approach harmony with IV V I after setting up themes on the I
 - To help showcase approach harmony bach had a ascending line (6-7-R).
 - In minor it's still a raised 6th and 7th (like major)
 - That pattern with approaching harmony was repeated through a cycle of 6ths all based off the diatonic key center
 - Ex: C a- F d-
 - Those ascending lines are like primal IV V I's
 - In A minor for example, the ascending notes would be (F# G# A). You can see that as a primal D7 E7 a-