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JW TEACHING MATERIALS

1 VOICINGS

BASIC VOICINGS – ROOT POSITION

Here are basic seventh chord voicings for the most common chord qualities. They're shown as four note complete voicings (drop 2 and drop 3) as well as in 3 note “shell” voicings. Play each voicing in 12 keys, then pick one root and play all voicings from that root.

SHELL VOICINGS

Shell voicings contain the root, third, and seventh of a chord and are one of the simplest, yet most effective voicing types. There are two inversions of a shell voicing – one voiced 173 (root on the 6th string) , and one voiced 137 (root on the 5th string). Practice each voicing in 12 keys, and practice all six voicings from one root. Since these chords omit the fifth, several voicings function for two chords- Cmin7 and Cmin7b5 have the same voicing, as do Cmin6 and Cdim7. Once you are comfortable with the basic shapes, practice the shell voicing with their roots on a higher string – the fifth, fourth or third. You will have to change the fingerings slightly, but this will help you find useful voicings in a higher register.

SHELL VOICINGS + EXTENSIONS

Shell voicings can be a powerful tool for comping when combined with extensions. By omitting the root, you'll be able to finger upper extensions on the higher strings. Pay attention to the shape created by the 3rd and 7th- is it a fourth, a tritone, or a fifth? Practice one chord type and its extension over a drone or sustaining bass note. Start with the extensions for a Cmaj 7 chord - once you are comfortable with the extensions and chord shapes, try playing some of those voicings in 12 keys. Then practice different chord qualities. As you change chord quality, notice how many of the extensions shared by different chord types, while the one or more notes in the shell voicing (3rd and 7th) change.

DROP 2 INVERSIONS

Drop 2 inversions are a powerful tool for comping and melody harmonization. These shapes can be somewhat complicated, so take your time when practicing this material. The drop 2 inversions can be played on two sets of strings- 1234 and 2345. I recommend starting with strings 1234. Work with the major 7 shapes – once you know all 4 fingerings on strings 1234, make sure you understand the degree of each note in the voicing. Then you can lower the seventh to create a C7 chord, then the third and seventh to create a Cmin7 chord, and so on. You might want to practice all the voicings of the various chord types in C before changing keys. Here are some useful sequences to practice:

Cmaj7 – C7 – Cmin7 – Cmin7b5.
Cmaj7 – C7 - C6
Cmin(maj7) – Cmin7- Cmin6
Cmin7-Cmin7b5-Cdim7

DROP 3 INVERSIONS

Drop 3 voicings are another important building block of fingerboard harmony. They are most playable on strings 6432, although some voicings work well on 5321. You can practice these voicings in a few ways. Try taking one inversion, and altering the notes to create every chord quality – for example, take a first inversion Cmaj7 chord and lower the 7^{th} to create C7, then lower the third to create Cmin7. Once you are familiar with the chord construction and shapes, practice all 4 inversions of one chord type up and down the fingerboard in all 12 keys.

CHORD CADENCES – 2 CHORD RESOLUTIONS

This is a collection of voicings for basic chord progressions – mostly II-V and V-I. All examples have been presented in the key of C. Pay attention to the highest note of each voicings – what is its scale degree? This will help you transpose each pair of chords to different keys.

Each category of chords is presented on two different sets of strings – one with the melody note on the first string (strings 1234), and one with the melody note on the second string (strings 2345). Naturally, there is a certain amount of redundancy between the voicings on strings 1234 and on strings 2345. Since this is a lot of material, I would suggest working slowly. Pick one family of chords (for example- V7alt- Imin7) and work on it for several days. I recommend taking one pair of voicings and practicing it in all 12 keys, through the cycle of fourths. Find voicing pairs that are technically difficult and practice them until they are easy to play. Once you have spent a while with one category of chords, practice the drop – 2 voicings for each of the 2 chord types in the pair. Also, work on using these voicing pairs in tunes that you are currently practicing.

DIATONIC CHORD SCALES

This page shows the seventh chords produced by harmonizing three common scales – major, melodic minor, and harmonic minor. I recommend practicing one scale and one chord type at a time – for example, major using drop-2 voicings. Since the voicing shapes vary by string set, there are several ways you could practice these chord scales – on strings 1234, 2345, and possibly on 3456. Try playing the chord scales across the full range of the guitar – from the lowest possible voicing to the highest. If you master this material, you might want to try playing the chord scales in inversions – first, second, or third.

3 NOTE VOICINGS

This is a collection of useful voicings that contain 3 notes on adjacent strings. They are similar to harmonized chord scales, but are not exactly chord scales, since the interval relationship is not consistent throughout the chord scale. Some melody notes have more than one voicing associated with them. I recommend practicing one “chord scale” at a time, over a drone, or sustaining pitch in a low register, in order to hear the quality of each voicing. Once you are comfortable with the voicings in C, transpose them to all 12 keys. Practice these voicings out of tempo, then in tempo with a metronome, simulating rhythmic comping over various grooves,

124 VOICINGS

Here are some partial seventh chord voicings. These are similar to drop 2 voicings, minus an inner voice, which renders them incomplete, but also gives them a more open sound, due to the wider interval in the inner voices. It may be helpful to play the drop – 2

inversions for each chord type in C before you practice these voicings. As with all voicings, the most important note is the melody note or top voice. Keep track of its function (root, 9th, #11, etc.) and you will be able to transpose the voicing much more easily. This habit of thinking will help you connect music theory to the fingerboard instead of simply memorizing shapes.

DISSONANT BLUES VOICINGS

These are some colorful voicings that contain half steps – usually the chord's minor third and major third (here written as #9 and 3), as well as the b5 and natural 5 (written as #4 and 5). Each line contains a “family” or set of similar fingerings. Practice one at a time, then transpose to different keys. These voicings add a nice flavor when interspersed with more traditional voicings on the blues progression.

DOMINANT 9 #11

These voicings are useful in several contexts – V7 leading to I, as a bII – I or tritone substitute, and as the I and IV chords in a blues progression. All the voicings presented here are drop – 2. Once you are familiar with these, try altering drop – 3 dominant 7 voicings.

DROP 2 – ALTERED

This page contains voicings that may be more useful for practice and theory study than for using in actual playing. These voicings result from taking the basic drop -2 seventh chord voicings for C7 and adjusting each voice for the altered chord quality. Try this with drop 3 voicings as well.

FOURTH VOICINGS

Here are some useful “fourthy” voicings for the C dorian scale. Start by practicing the C Dorian scale in 4ths across all pairs of strings: 12, 23, 34, and 45. This will help you keep track of chord tones as you start stacking fourths. The 4th + 4th voicings can be played on a variety of string sets – practice them on each sets of strings (123, 234, 345), then practice the entire scale across the full range of the instrument. Focus on the scale degree of the top note of the voicing as you play the chord scale up and down the fingerboard. Pay attention to which scale degrees generate the same voicing shape, and which scale degrees have different shapes. Once you are comfortable playing the 4 note 4+4+4 voicings, check out some of the partial 4th voicings- these have a slightly different, more open texture with the same color.

MELODIC MINOR VOICINGS

These are some useful voicings for Cmin(maj7). Shown are drop – 2 seventh and ninth chords, as well as some other useful voicings. These voicings are colorful chord substitutes for other chord types – for example – Cmin(maj9) can function as F9#11, or Ebmaj7#5. These shapes can also be arpeggiated as part of a single note line.

TRIAD CHORD SCALES

Here are the harmonized triads for major, melodic minor, and harmonic minor scales in all three inversions. This is a lot of material to work on, especially once you start transposing to different keys. I suggest picking one scale and one key at a time to work on. Then practice the chord scale on one set of strings at a time – for example, C major, root position on strings 123, then strings 234, then 345. Once this is comfortable, try playing the scale full range across all 4 sets of 3 strings. Remember to practice these chord scales slowly- they are

fingering and theory exercises, not speed exercises. In addition to playing the triads as block chords, you might also choose to arpeggiate them.

TRIAD CHORD SCALES – 3 INVERSIONS

Here is another look at harmonized scale triads. Remember that each mode of the major and melodic minor scale has its own harmonization, and it is useful to be able to think of the chords of each mode from its own root. For example, being able to think of chords in C dorian from the root C, rather than from Bb, the parent major scale. You may find it helpful to practice each scale in thirds before attempting triads and inversions. When practice each harmonized scale, try to think of the triad quality and scale degree (for example, in the dorian scale, 1 and 2 are minor, and b3 and 4 are major.)

CHORD INTERVALS – PARTIAL VOICINGS

Here is a different look at basic chordal harmony. Each chord type is voiced using two notes, in a variety of intervals. This is a nice way to break up block chord playing, as well as to find smaller voicings and different textures to comp with. I suggest picking one voicing type and interval, and practicing it in 12 keys. Start with smaller intervals, then practice the wider intervals. Then, practice comping on a familiar progression, using these partial voicings as well as more common voicings.

SHELL VOICING ALTERATIONS

Here are some variations on basic shell voicings (137 and 173). By substituting 9 for 3, more colorful and ambiguous voicings are created. You can use these (sparingly) when comping.

CLOSE VOICED SEVENTH CHORDS

Here are close voicings, in all four inversions, for common chord types. These are extremely difficult to play as block chords (with a few exceptions) so I would suggest practicing these as chordal arpeggios. The partial close voicings (3 note chords) are much more playable, so I recommend picking one quality at a time, and playing it in all 12 keys. As always, it is a good idea to play each quality of each inversion – for example, root position major 7, then dominant 7, then minor 7.

DROP 2 91 65 #11 5 SUBS

It's important to know how to alter the tones of a basic seventh chord to create more colorful voicings. By taking a standard seventh chord voicing or inversion, and substituting the 9^{th} for the root, the 6^{th} for the 5^{th}, or the #11 for the 5, many new voicings can be created. These pages show standard drop-2 inversions of common chord types and their alterations. I suggest working on one chord type and inversion at a time- for example – all the alterations of a root position C7 chord, then a first inversion C7 chord. Record a bass note and practice the voicings over the bass to hear how the quality changes, especially when an extension is the lowest note of the chord.

CMAJ7 – ALTERED DROP 2

This is a comprehensive look at chordal alterations using the drop 2 inversions of C maj7 as an example. Many of resultant voicings are difficult to play and tend to obscure the chord quality – in other words, they may be more useful from a theoretical perspective than as truly useful voicings. Nevertheless, the will help learning the function of each note in a voicing, and which alterations are practical. Practice this exercise over a drone (a low C pitch) so you

can hear the quality of the voicing change – it still functions as C major 7, even though it may be missing the 3rd or 7th. You may also want to try applying these alterations to other chord types like dominant 7 and minor 7.

DROP 2 AND DROP 3 SEVENTH CHORDS

Here are common chord types, presented as arpeggios rather than chord voicings. Practice them as block chords, as well as broken chordal arpeggios. Written in the key of C, the drop 2 chords fall most easily on strings 2345 – but you should practice them on strings 1234 as well. Make sure you understand how the same voicing is fingered on both sets of strings. You should practice each chord type around the cycle of fourths (for example, major 7 in all 12 keys). You might also want to practice each inversion using all qualities, and alterations – for example root position major 7, then dominant 7, then minor 7. Pay attention to which notes stay the same, and which notes change as you alter a voicing to become a new chord quality.

PARTIAL SEVENTH CHORDS

These are drop 2 seventh chords that are missing an inner voice. These voicings are written as arpeggios, but they are very playable as block chords. These allow you to create a different, more open texture while using familiar chord shapes.

SPREAD SEVENTH CHORDS

These seventh chords are neither drop 2 or drop 3, but contain wider intervals using the root, third, fifth, and seventh of the chord. Voicing #1 is derived from a drop-2 voicing with the seventh raised an octave, and voicing #2 is derived from a close voiced seventh chord with the fifth raised an octave. These are difficult to finger as block chords, so I would recommend practicing them as chordal arpeggios. Since these voicings are somewhat difficult, you might get more mileage out of practicing each inversion (root position, 1st inversion, 2nd inversion, etc.) and all its qualities in one key, rather than all 4 inversions of one chord type in 12 keys. In other words – try the first inversion of Cmaj7, then the first inversion of Cdom7 and Cmin7.

1345 VOICINGS

Here are some colorful voicings with a wider interval between the top voice and 2nd voice. You will need to play these fingerstyle or with pick and fingers. Try to relate these voicings to common drop 2 and drop 3 shapes.

2 PATTERNS AND LINES

DIGITAL PATTERNS

1235 / 5679 PATTERNS

Here are some four note cells that will help you outline chord changes in a simple, effective manner. Practice each four note cell in all 12 keys, and practice permuations of each cell starting on each note – for example, 1235, 1253, 2153, 2135, 3152, 5321, etc. Each four note cell has two practical fingerings. Take your time – initially I would focus on one chord type or fingering at a time. Make sure you play the 1235 patterns on several string sets, all over the fingerboard. Play through a tune's progression using one permutation at a time. Once you are comfortable with 1235, practice 5679, the upper scale tones, in the same way. At first, it may be more effective to spend a week or two on 1235, then another week or two on 5679. Eventually, practice combining the two patterns as you play through a tune's progression.

DIATONIC SCALE INVERSIONS

This is a useful way to practice scales so that they can be easily inserted in a solo. Each scale has four “inversions” - from the root to root, 3rd to 3rd, 5th to 5th, and 7th to 7th. Pick one scale (for example, dorian), and play each inversion of the scale in 12 keys. Once you have played all 4 inversions in 12 keys, then go through one key at a time, playing each scale in all four inversions. Start by practicing descending scales, then practice the ascending scales. Once you are comfortable with a variety of scales in all four inversions, practice a tune using scale inversions. Play through the progression using scales from the root, then 3rd, 5th, and 7th, Once you can do this, mix up the scale inversions, or play them starting from the same pitch. This is a good way to connect scales to chord tones.

BOP SCALE INVERSIONS

Bop scales are diatonic scales with an added chromatic tone, usually between the 5th and 6th, or 7th and 8th degree. Practice the bop scale inversions the same way as the diatonic scale inversions – pick one scale and play descending from root to root in 12 keys, then from 3rd to 3rd, 5th to 5th, and 7th to 7th.

SCALE QUINTS/TETRACHORDS

These are four and five note scale segments. These are similar to the diatonic scale inversions, but contain less notes. Practice these in a similar fashion, only ascending. Play four or five note groups from the root, 3rd, 5th, 7th, and 9th. Once you are comfortable with all scales, play through a tune using patterns starting from the same scale degree – 1, 3, 5, etc. Once this is easy, mix up the patterns, or play them all starting from the same pitch.

ARPEGGIO INVERSIONS

Here are four and five note inversions of common seventh chord types. You can practice these in several ways. Pick one chord type, and play each arpeggio inversion in all 12 keys. Or, play each arpeggio's inversions across the full range of the instrument in all 12 keys, ascending and descending. Play through a tune's progression using arpeggios starting on the same chord tone (1, 3, 5, 7), or mixing inversions.

LINES – MAJOR, MINOR, DOMINANT

Here is a collection of two measure phrases for a variety of common chord types. Before practicing these lines, make sure you are comfortable with basic scales (major, mixolydian, dorian, melodic minor, and harmonic minor) in a variety of fingerings. The lines are organized by starting pitch (1, 2, 3, 4, 5, 6, 7). I suggest picking one category of line, and playing through the examples until you find a line that you like. Play it as written (in C) until memorized, then transpose it to all 12 keys. Pay attention to the starting and ending pitch of the line. Most lines can be played on other sets of strings, although the fingering may be a bit more awkward. Try plugging in these lines in your own improvisations, and composing your own variations on the lines. Remember that transcription is of the utmost importance- your own personal transcriptions will yield more usable vocabulary than simply practicing patterns you've learned from a book.

I VI II V F

I VI II V C

These exercises contain a large amount of material for turnarounds in major keys. I've written exercises in 2 keys, C and F. Although there is some redundancy between the lines in

each key, I thought it was important to write out patterns in 2 different keys, since certain fingerings are more common in certain keys, and in certain positions. These patterns are organized by starting pitch. Notice how an initial 4 note pattern (for example, 1235) can connect to the VI chord in many ways. Try to stay aware of the function of each of the 4 pitches over each chord, especially the dominant. Which alterations are outlined? Practice each pattern in 12 keys. Once you are comfortable with a few patterns, start composing your own variations.

IImin7 – V7

Here are some basic exercises for connecting the Iimin7 and V7 chord, with each chord getting 2 beats apiece. The main thing here is to note which 4 chord tones are used for each chord. Are they inversions of arpeggios or scale fragments. How does the II connect to the V – by a scale degree, or third? Notice how the two chords connect smoothly, instead of both ascending or descending with a similar shape. Learning how to connect II and V smoothly will help you be more harmonically specific in your improvising, rather than relying solely on key centers and parent scales.

II V I Bb

II V I F

Here are some patterns for II V I, with the II and V chords getting 4 beats apiece. Notice how the line over the II chord outlines a min7 or min9 chord, or the Dorian scale. The line over the V7 chord contains a variety of alterations – note how it resolves to a chord tone of the I chord.Try to find efficient fingerings for the lines, and make up your own patterns over the I chord, to practice resolving the II V in several different ways. Make sure you are comfortable with one octave dorian and fully altered scales before practicing these lines. Compare these lines to the lines in the I VI II V patterns, where each chord gets only two beats. Which are the most important chord tones and alterations over each chord type?

TWO OCTAVE SCALES

Here are some basic two octave scale fingerings for common diatonic scales. Each scale is shown with four fingerings, two with the root on the sixth string, and two with the root on the fifth string. Many other fingerings are possible, but these are the most practical to begin with. Practice these scales in this manner: Play the first fingering of the major scale (root 6) in all 12 keys, ascending and descending. Once you have this pattern memorized, move on to the similar fifth string pattern. Work your way through all 4 major patterns in 12 keys, then move on to lydian, and all other scales. Once you have done this, try playing one pattern or fingering using all 8 scales from one root- for example, G major, G lydian, G mixolydian, all from the root on the sixth string, third fret. You should also practice playing these scale patterns in thirds, and in groups of seconds. Once you are familiar with the four basic fingerings for each scale, find other fingerings – for example, using three notes per string.

TWO OCTAVE ALTERED SCALES

Here are some two octave fingerings for four altered dominant scales. Work on one at a time, and practice each scale slowly, keeping track of each scale degree and its altered quality. Switch back and forth between the major scale in each position, and the altered scale – this will help you compare the altered tones to the pitches in the major scale. When practicing the whole tone scale, notice how the fingerings alternate three and two notes per string. Remember, altered scales are not the only tool for improvising over altered dominants

– they are more of a way to locate and organize altered tones. Practicing altered dominant arpeggios (augmented triads, 13b9 arpeggios, and dom7b9#9#5 arpeggios) and patterns may be a more useful way to learn altered dominant vocabulary at first.

FULL RANGE SCALES – C

Once you have a handle on basic two octave scale patterns, it's extremely important to practice scales across the entire range of the instrument, combining and passing through all the scale patterns. Here, nine basic scales are presented in “C”, starting on a low E or F, and ascending to a high A or Ab. Many fingerings and pattern combinations are possible. I suggest taking one scale at a time and playing it several times in each key before moving on to the next key. Speed is not important – make sure you always know where you are in the scale pattern, and which scale degree you are playing. Eventually, you will be able to work out efficient fingerings that work for chromatically adacent keys – for example, C, Db, and D. It may be helpful to record a drone pitch to practice the scales over – this will help you maintain a tonal center even when you are starting the scale from a pitch other than the root. Using a drone will also help you hear each interval in the scale – for example the b6 in the aeolian scale compared to the natural 6 in the dorian scale.

THREE NOTE PER STRING SCALES

Three note per string scale patterns are an excellent way to improve your fingerboard knowledge. Each scale has seven fingerings, each starting with the lowest note (1, 2, 3, 4, 5, 6, or 7) on the 6th string. I've presented these patterns in F, since in F, the first pattern starts on the tonic. Start by learning the first fingering of the major scale (the pattern from the tonic), then move on to the other six patterns. Once you have learned all seven, try playing all seven in one key. Remember that in most keys, the first pattern,starting from the lowest fret, will not have the tonic as the lowest note. Don't confuse these seven patterns with modes of the major scale – they are simply the same major scale starting on different notes. It will help to record a drone pitch, and practice the seven fingerings over the drone, in order to hear to hear each chord tone's relationship to the tonic. This will also help you keep your place in the scale fingering, and avoid thinking of the fingerings simply as visual patterns to memorize. Once you are comfortable with all seven positions of the major scale, pick another scale to learn – either a mode of the major scale like the mixolydian or dorian, or a completely new scale like melodic minor or harmonic minor. When learning the fingerings for melodic and harmonic minor, try to picture them as alterations of the major scale fingerings.

MINOR PENTATONIC FINGERINGS

The minor pentatonic scale has five positions, with two notes per string in each position. The lowest note of each position, on the 6th string, will be one of the five pitches of the scale (1, b3, 4, 5, b7). Pick a key, and practice one fingering at a time. Once you have learned the lowest position, play the next position, and try to see how it connects to the previous one. Once you can play all five positions in F, practice the scale in different keys. It may help to locate the tonic note (F) on every string, and practice constructing the scale from the tonic. Once you can do this, try adding the notes on the lower string that are below the tonic. This should make it easier to visualize patterns that don't start on the tonic.

TWO OCTAVE TRIAD ARPEGGIOS

Triad arpeggios are one of the most fundamental elements for improvisation and technique. Once you have a solid grasp on triad fingerings, seventh chord and extended arpeggios will become much easier to comprehend, and it will be easier to resolve scalar lines

to chord tones. Here are many fingerings for major, minor, diminished, and augmented arpeggios. Make sure you are comfortable with at least 2 fingerings from each string (the 6th, 5th, and 4th). Practice the fingerings in all 12 keys, and practice similar fingerings from the 6th and 5th, and 4th and 5th strings. A good speed goal is 16th notes at quarter note = 80 or so.

Spend some time with one arpeggio (C major, F minor, etc) and play through all its possible fingerings, ascending one way and descending another. This will help solidify the entire fingerboard visually and aurally. Try playing all seventh diatonic arpeggios of the major scale (C, Dmin, Emin, F, G, Amin, Bdim) or melodic minor scale (Cmin, Dmin, Eb+, F, G, Adim, Bdim) or harmonic minor scale (Cmin, Ddim, Eb+, Fmin, G, Ab, Bdim) in two octaves using a variety of fingerings.

The augmented triad is a very useful tool for improvisation. It's a simple way to play an altered dominant sound, and can easily be transformed into a more complex altered sound with the addition of other chord tones such as the b9, #9 and #5. In addition, the augmented triad is part of the minor (maj7) sound, so it can be used as a melodic minor substitute. For example, on a C9#11 chord, instead of playing a Gmin(maj7) arpeggio, you could play a Bb augmented triad. Here are several fingerings, from the sixth and fifth string. Play each shape in 12 keys, and notice how the fingerings with the root on the 6th string are related to those with the root on the 5th string. Play these triads ascending and descending, as well as just descending from the highest note to the lowest.

TWO OCTAVE SEVENTH CHORD ARPEGGIOS

Here are some two octave fingerings for basic seventh chord arpeggios. Each arpeggios is shown in four positions, with roots on the sixth and fifth string. Notice how there are two basic fingerings for each arpeggio. Practice each fingering in 12 keys, than play all 4 fingerings in all 12 keys. Pick one root and play all the seventh chord qualities from that pitch. Also, practice the arpeggios in groups of 3 and 4 notes – this will familiarize you with the inversion of each arpeggios. In addition, try to relate each arpeggio to a scale in that position. For example, practice a mixolydian scale, then the dominant 7 arpeggio in that position, or a melodic minor scale and a minor (maj7) arpeggio. Also, practice the 7th chord arpeggios with a leading tone below each chord tone. As always, there are more fingering possibilities than the ones shown here. Take the time to find your own fingerings to increase your fingerboard knowledge. Try playing the notes of a 7th chord arpeggio on one string at a time, creating six one-string arpeggios.

FULL RANGE ARPEGGIOS – C

Once you are comfortable playing triad and seventh chord arpeggios in one and two octaves, practice playing them across the entire range of the guitar. This page presents basic arpeggios in C and F, written from the lowest to highest possible note. Work out your own fingerings, connecting basic arpeggio shapes. Several fingerings are possible – work out the most efficient way to connect the positions. Always keep track of which chord tone you are playing – avoid thinking only about shapes and patterns.

MELODIC MINOR ARPEGGIOS: MIN(MAJ7) 9

Here are some extremely useful fingerings for min(maj7) arpeggios. Instead of playing the entire melodic minor scale over a chord, try playing one of these arpeggios – it will clearly outline the extended tonality. For example, F9#11 = Cmin(maj9), E7#9#5=Fmin(maj7), and so forth. Practice these arpeggios ascending and descending around the cycle of fourths,

alternating roots on strings 6 and 5. In addition, practice all the triads and seventh chords from the melodic minor scale in order to get the most out of this very useful scale.

ARPEGGIOS 9THS 11TH 13THS

Here are extended arpeggios, all written from a C root. Play each arpeggio in 12 keys using the given fingering, and play on several string sets if possible. Once you have practiced 9th chords, move on to 11th chords, and note how they are simply extensions of the 9th chords. Pay attention to the quality of the extensions on each chord – 9 or b9, 11 or #11, etc. In addition to playing each chord type in 12 keys, pick one root, and build all the arpeggios from that note – which notes stay the same, and which notes change?

ARPEGGIOS – TRIADS, ONE OCTAVE FINGERINGS

Triads are an essential building block of improvisation. It's important to become familiar with all the possible fingerings of triads – this will make learning extended arpeggios much easier, and will make the complete fingerboard much more familiar. I recommend practicing one chord type, and one inversion at a time (for example, minor in root position). Compare the fingerings, and note which chord tones are located on each string. Spend a lot of time with this – it will simplify learning more complicated arpeggios.

SCALE INTERVALS

Once you are comfortable playing basic scale exercises (scales in one and two octaves, full range scales, and scale patterns utilizing 2nds), it's important to practice scales in intervals, whether as broken intervals (melodic intervals) or as simultaneous intervals (chords). Spend a lot of time on thirds, since they are the building blocks of arpeggios and chord voicings. You might want to practice a scale's intervals on a certain set of strings (for example, C major thirds on strings 12, 23, 34, and 45), then across the full range of the instrument. This is an extremely important area of practice, so make sure not to rush through it. You might want to warm up by picking a common scale fingering (for example, G major in the 2nd position) and playing all the intervals within that fingering. You might want to practice a certain interval in several scales, all starting from the same pitch- for example, fourths in C major, C mixolydian, and C dorian,

SCALE PATTERNS – 2NDS

Once you can play scales up and down in two octaves, and across the range of the guitar, practice groupings of seconds. This is a good way to build confidence with starting and ending a line on any note of a scale, and is extremely good technical practice, since you'll be using almost every possible finger combination. Pick one grouping and apply it to the scale of your choice in 12 keys. You may want to start with a particular scale position or fingering, then play the pattern across the entire range of the fingerboard. Groups of 3 and 4 are good for speed practice – work on playing them at a fast tempo using a metronome.

SCALE PATTERNS – 2 INTERVALS

Here is a more challenging take on scale practice. Once you are comfortable playing scales in intervals (major scale in 3rds, 4ths, etc.), practice patterns that combine two intervals. Some will be simple, and others will be more complex. Since these patterns cross all the strings on the guitar, it may be helpful to work them out on pairs of strings first – strings 54, 43, 32, and 21. Once you are familiar with this, try playing the scale pattern across the full range of the instrument. As always, play slowly, and keep track of which scale degrees you are playing. This is an exercise to build fingerboard knowledge and scale tone awareness, not

fast technique.

TRIAD PAIR PATTERNS

Triad pairs are a useful way to bring out different colors of common scale. The same triad pair can have a different color depending on its relationship to the root of the moment. Here are some exercises to get you comfortable with connecting two adjacent scale triads. I suggest picking one triad pair (IV and V of the major scale, or F and G triads in the key of C). Pick one chord quality and triad pair pattern, and transpose it to all 12 keys. Record the chords so you can hear what the triad pairs sound like over the basic sonority. As with all material, it's better to focus on one pattern per practice session than to play as many patterns as possible in one session.

SCALE PATTERNS – THIRDS, TRIADS, SEVENTH CHORDS

Thirds are one of the most important intervals to master within scales. Here are patterns using scale thirds, triads (two thirds in a row) and seventh chords (three thirds in a row). Start by applying the patterns to the major scale, then practice other modes of the major scale (dorian, lydian, mixolydian, etc) as well as melodic minor and harmonic minor. Try one scale pattern in 12 keys (for example, ascending / descending thirds in all major scales), or pick one scale in one key, and try playing all the exercises in that key.

CELLS V2

Four note patterns, or cells, are a good way to build technique and harmonic awareness of a given chord type. Each 4 note pattern contains four notes from the given chord scale, and outlines that chord with a combination of chord tones (1, 3, 5, 7) and extensions (9, 11, 13 or 2, 4, 6). Practice one pattern at a time, and transpose it to 12 keys, and play it on a variety of string sets. Try to relate it to basic seventh chord and scale patterns. Many of these patterns may not be immediately useful in improvising, but practicing these cells should help you hear which tone are stronger and weaker, more fundamental and more colorful, over a given chord. You may want to play these over a drone, or a backing track with all 12 pitches. I recommend using free audio software to record the cycle of 4ths, with each pitch lasting for 5 or 10 seconds. This will help you hear the color of each note in the cell over the root of the moment.

CHROMATIC FRAGMENTS

Chromatic fragments, also known as apoggiaturas, enclosures, surrounds, are a major part of the bebop vocabulary, and are great technical studies. Here are a wide variety of brief chromatic phrases, starting from all the degrees of major and minor chords. Pay attention to the starting pitch, and which chord tone (1 3 5 7) the fragments enclose.

MODES OF MAJOR MEL MIN HARM MIN

Studying the modes of these scales is a good way to build knowledge of scale construction, interval relationships, and ear training. These scales have been presented three ways- 1) as modes of the parent scales, 2) modes from each chord degree compared to each other, 3) as scale families – modes with a similar color compared to each other.

No fingerings have been given – I would suggest practicing one octave fingerings, in one key. For example, play all the modes of the major scale in C, in one octave, from one pitch. Then try in a different location or register on the guitar. Try picking one scale, and working out all the one octave fingerings, then connect them into two octave fingerings. Use a drone pitch to

establish a fundamental bass, so that you can focus on the sound of the intervals in each scale.

Take some time to compare modes with similar colors- for example, lydian and lydian dominant, or dorian and dorian b2. It will be much easier to learn the more exotic or colorful modes as variations on familiar scales, rather than going through the painstaking process of learning each new scale from scratch. Think of the exotic modes as new colors you can use to add variety to the sound of familiar modes. Remember that any mode, no matter how unusual, can be found by playing the parent scale at the appropriate interval away from the root. If you have a hard time playing a D lydian augmented idea, remember that B melodic minor gives the same sound.

SCALE ARPEGGIOS 3RDS 7THS 9THS ETC.

This exercises shows the harmonization of each scale up to the 13th. It's an interesting theoretical exercise to study which chords and extensions are generated from each scale degree. You might want to practice one scale degree at a time, starting with triads, and adding one third at a time to created seventh, ninth, 11th, and 13th chords.

COLTRANE CHANGES

GIANT STEPS I – bIII

A good way to get a handle on the “Giant Steps” progression is by practicing the basic root movement of a major 7 chord to a dominant 7 chord a minor third above. There are many, many ways to connect these two chords. Make sure you are familiar with all the one octave fingerings of these two arpeggios – Cmaj7 and Eb7, or all maj7 and dom7 arpeggios. Start by playing the examples as written, connecting Cmajor7 to Eb7. Once you have the idea, pick one pattern and transpose it to 12 keys on a variety of string sets. Keep track of which 4 notes fit each chord, and make sure you name the chords as you play them – don't just use finger patterns. Once you have several of these basic progressions under your fingers, you will find it easier to create lines that outline the entire four bar cycle.

GIANT STEPS V7 – I

The other part of the “Giant Steps” cycle involves a familiar V7-I cadence. Practice this as you did the I-bIII cycle- play one pattern at a time around the cycle of 4ths. By connecting I-bIII patterns with V7-I patterns , the entire cycle should start to come into focus.

GIANT STEPS CYCLE PATTERNS

Here are 4 bar patterns for the entire “Giant Steps” cycle. Notice how they combine the I-bIII and V7-I patterns. The number of combinations is infinite, so pick a few and learn them thoroughly. More importantly, compose and practice your own cycles.

GIANT STEPS / COUNTDOWN VOICINGS

It's important to be able to voice chords for the “Giant Steps” cycle. Since the I-bIII and Imin7-bII7 root movements can be confusing at first, it may be helpful to practice these cadences separately. Play each pair of chord voicings in 12 keys. Take note of which voicing pairs are easy, and which demand more concentration. Pay attention to common tones between the two chords and whether the chords move in parallel or contrary motion. Work on cadences on a variety of string sets- this will give you flexibility in changing register. Once you are comfortable with this, practice voicings for the entire 4 bar cycle. Use your knowledge of

voicings to come up with several variations on voicings for the cycle in one key. How many ways can you voice the cycle in C, or in B?

COUNTDOWN IMIN7 – bII7

The “Countdown” cycle is the same as the “Giant Steps” cycle, except for the first chord progression- Imin7-bII7 instead of Imaj7-bIII7. As with the other progressions, practice one pattern at a time in all 12 keys, taking care to mentally name each of the chords in the pair.

COUNTDOWN PATTERNS

Here are some four bar patterns for the “Countdown” cycle. Notice how these combine the smaller cadences in the preceding exercises. As you practice these, make sure you can mentally keep track of each chord in the cycle, at least at slow tempos. Avoid the temptation to memorize chord shapes – this will make it hard to tranpose the patterns. Once you are starting to feel comfortable with a few patterns, spend along time improvising through the cycle in one key at a slow tempo. Make variations on each pattern, so you can start to move the line in different directions.

3 TECHNICAL STUDIES

SPEED EXERCISES

Here are many short phrases and scale fragments. These make great warmups and are also great for improving your speed and coordination. You can practice these exercises in a variety of ways. You can pick one exercise and play it over and over as written, starting slowly and increasing speed. Try playing it on different strings and frets of the guitar. You could also try playing each phrase around the cycle of 4ths, playing it several times in each key. A good technical goal is sixteenth notes at quarter note = 120 or more.

CHROMATIC WARMUPS

The chromatic scale is an important foundation of technique, and is a great left hand / right hand coordination exercises. Here are many variations on the chromatic scale – patterns on one and two strings, and the complete chromatic scale in one and two octaves. Pick a few exercises at a time to practice, and play them slowly and accurately. Play the one and two octave scales in 12 keys, around the cycle of 4ths.

BARRE CHORD ARPEGGIO WARMUP

Here is a simple warmup that is excellent for improving alternate picking, arpeggio technique, and left hand / right hand coordination. Play the 3 C major arpeggios, then the 3 A- arpeggios. Make sure you are using alternate picking, and that the notes sound clearly one at a time – don't hold down your fingers. Then, play the 3 major and 3 relative minor arpeggios in the other 11 keys, around the cycle of 4ths.

4TH FINGER BARRE EXERCISES

Here are a variety of short phrases and arpeggios designed to improve your ability to barre using the 3rd and 4th fingers. Play each phrase many times in one position, or up and down the fingerboard. Make sure the notes played with the 4th finger sound as clearly as those played with other fingers.

SHORT ARPEGGIOS

Here are many common arpeggios that use 3 or 4 notes. Since they're so useful, it's a

good idea to make sure you have as much facility as possible with them – you'll wind up using these arpeggios all the time! Make sure you play each of these arpeggios in 12 keys, and transpose them to several different string sets.

BEBOP SCALES

Bebop scales are seven note scales with an added leading tone. They're a great way to add chromaticism to scalar lines. These scales are simply variations on familiar scale fingerings. Most of these scales have several variations – the chromatic tone may come between scale degrees 1 and 2, 2 and 3, 5 and 6, or 6 and 7. Play each variation in 12 keys as written (one octave), and then work out two octave fingerings. For additional practice, you might want to try ascending using one bebop scale, and descending using another. For example, you might play the D dorian scale with a D# ascending, but a Bb descending. Make up your own licks and phrases that incorporate bebop scales and chromaticism.

MAJOR SCALE – 2NDS WITH LEADING TONE

This is an excellent finger exercise that is almost like a combination of the major scale with the chromatic scale. You might want to start with a familiar fingering of the C major scale, then practice adding the lower chromatic neighbor in triplets. Once you can play the chromaticized scale in a couple positions, try playing the scale across the full range of the guitar.

MAJOR AND MINOR TRIADS WITH LEADING TONE

4 JAZZ ETUDES

Here is a collection of jazz etudes written over standard progression. They are intended to show how patterns, scales, and arpeggios can be combined to outline chord changes. They're somewhat to busy and note – filled to be musically tasteful solos, but you may find them useful to study note choice and connections over chord changes. Pick a solo and play through it at a slow tempo, or even out of tempo. Analyze the scale degrees or chord tones within each measure, and try to figure out which scale and arpeggio they derive from. If you find a section or a phrase you like, practice it in several keys. I strongly recommend writing your own solos over tunes you are learning – it will help you memorize the changes, and develop a vocabulary for soloing over the tune that is more solid and secure.