

MEL BAY PRESENTS

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### Introduction

Classical guitarists have had a few hundred years in which to evolve an organized, disciplined approach to playing: a "proper" method. The plectrum guitar, like jazz, is a product of this century, and the electric guitar is so recent an innovation that we're only beginning to recognize its possibilities as a legitimate instrument.

The early guitar players combined elements of the classic style with banjo or mandolin picking techniques to form a sort of guitar method. When I started learning to play, the instruction books available were very limiting.

Some thirty years later, when I began to have the time and inclination to teach a few students, I was shocked to discover that the situation had improved only slightly. With a couple of worthy exceptions, there was virtually nothing in existing guitar literature designed for the working musician, teacher, or even for the "middling" guitarist.

Experience is unquestionably the best teacher, but it should not be the serious student's only access to new knowledge. This slim volume is the first in a series of attempts to bridge the current gap between what is known and what is in print about playing guitar.

Music is an enormous subject, and no one can claim to know everything about it. Bill and I have spent, between us, about seventy years as working guitar players, and we're still learning. Our goal in this book, and in those to follow, is simply to share with you what we've managed to learn thus far.

The emphasis here is on improvisation, which seems the most neglected and widely misunderstood area of modern music, and on the ear training essential to mastery of that gentle art.

The chapters on chords, theory and harmony have been condensed from an original manuscript which was several hundred pages in length. These subjects will be treated in greater detail in subsequent volumes, as will the elements of technique, style, solo development, chord-melody solos, and much more about improvising.

No book can substitute for your own experience . . . there are too many things you can learn on a stard that cannot be translated into printed words. If this book provides a few new ideas, a different approach or a fresh viewpoint toward your playing, then it is a beginning . . . a good first step in what is hopefully the right direction.

May it please you.

Joe Pass

## Part One: Harmony

Intelligent improvising depends on a working understanding of the relationship between chords and melodic lines. The purpose of this section is to provide the necessary harmonic foundation for the solos in Part Two.

The chordal theory is presented in its briefest form, as it directly relates to the guitar. If some of the explanations differ from those in "formal" theory books, you're free to change the words to suit your own way of thinking. It is the idea that's important, not its explanation.

This material is designed more as a reference than a method. If these ideas are TOTALLY new to you, there may be other books you might investigate before finishing this one.

### Chord Construction

The C Major/Minor Scale



MAJOR CHORDS: add chord NAME to basic triad

major	1	3	5	(basic triad)	C	C	E	G				
major 6th	1	3		and 6	C6	C	E	G	A			
major 7th	1	3	5	and ma7	Cma7	C	E	G	B			
added 9th	1	3	5	and 9	Cadd9	C	E	G	D			
major 9th	1	3	5	and ma7 and 9	Cma9	C	E	G	B	D		
6th/9th	1	3	5	and 6 and 9	C6/9	C	E	G	A	D		
SEVENTH CHORDS: a	dd chor	d nar	ne t	o a 7th (or 9th) cho	ord							
7th	1	3	5	7	C7	С	Е	G	Bb			
9th	1	3	5	7 and 9	C9	C	E	G	Bb	D		
11th*	1	3	5	7 (9)and11	C11	C	E	G	Bb	(D)	F	
13th**	1	3	5	7 (9)and 13	C13	C	Е	G	Bb	(D)	A	

\* in most guitar inversions, the 3rd is omitted from 11th chords. The 9th is often omitted from both 11th and 13th chords.

\*\* in theory, a 13th chord also contains the 11th, but that tone is normally omitted in guitar fingerings

MINOR CHORDS: add chord name to basic triad

minor minor 6th minor (ma7th)	1 1 1	mi3 mi3 mi3	555	ar	asic triad) id 6 id ma7	Cm Cm6 Cm+7	C C C	Eb	G G	A B	
MINOR SEVENTH CHO	RDS	: add	cho	rd i	name to a m7t	h chord					
minor 7th minor 9th minor 11th	1 1 1	mi3 mi3 mi3	555	777	and 9 and 11	Cm7 Cm9 Cm11	CCC	Eb Eb	G G	Bb Bb Bb	D F

DIMINISHED SEVENTH chords are built by flatting all but the root of a 7th chord.

											chore	1.	
1 1	3 53	5	7 6 (b7	)	C C	E Eb	G Gb	Bb A (	B56 )				
en: Cdi	m, Co	lim7, (	C7dim,	C°, C	7, C	<b>7</b> °							
GMEN	red"	in a c	hord na	me no	ormal	ly app	olies	to the	e shar	rped (	augmo	ented) 5th ch	ord
, C7 aug	1 1	3 #5	5 7		cc	E	G# G#	Bb					
N: the A	UGM	ENTE	D ELE	VENT	Hch	ord is	are	gular	11th	chore	h but	the 11th is ch	arned
1	3	(5)	7 (	9) #1	1	С	Е	(G)	вы		1.1.1.1	the rith is sh	arpeu.
ORDS (	sharp	or fla	t 5th o	9th):	just	do a	s inst	ructe	d.				
1	3	#5	7 6	9	C	Е	Gt	Rb	Db				
1	3	65	7 6	9 13	č	E	Gb	Bb	Db	A			
CHOR	DSY	MBOL	S										
C47 C9													
	en: Cdi JGMEN , C7 aug N: the A 1 IORDS ( 1 1 'CHORJ CA7	1 3 $1 53$ en: Cdim, Cd JGMENTED'' , C7 aug 1 N: the AUGM 1 3 IORDS (sharp 1 3 1 3 'CHORD SYN C $\Delta$ 7	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	en: Cdim, Cdim7, C7dim, C°, C°7, C7° JGMENTED" in a chord name normally applies to the sharped (augmented) 5th chord 1 3 $\#5$ C E G $\#$ , C7 aug 1 3 $\#5$ 7 C E G $\#$ Bb N: the AUGMENTED ELEVENTH chord is a regular 11th chord, but the 11th is sh 1 3 (5) 7 (9) $\#11$ C E (G) Bb (D) F $\#$ IORDS (sharp or flat 5th or 9th): just do as instructed. 1 3 $\#5$ 7 b9 C E G $\#$ Bb Db 1 3 b5 7 b9 13 C E Gb Bb Db A 'CHORD SYMBOLS C47				

# Chord Embellishment

Cm7-5

C¢

MAJOR CHORDS: add 6, ma7, 9 and (in blues) 7. To C major chord add the notes A, B, D or (blues) Bb. For C major, play:



SEVENTH CHORDS: add 9, 13 or use 11 in sets: 11 to 7, 11 to 9, 11 to 13. To C7 add the notes D, A, or F. For C7, play:



MINOR CHORDS: add 6, 7, ma7, 9 or 11. To Cm add the notes A, Bb, B, D or F. For Cm, play:



ALTERED CHORDS: the 5th may be sharped or flatted in any chord. the 9th may be sharped or flatted in 7th chords.



Reduce all chords to their basic form:

Cma7, C6, Cma9, C6/9 C9, C11, C13-9, C9-5 Cm7, Cm9, Cm11, Cm7-5 reduce to C MAJOR reduce to C SEVENTH reduce to C MINOR

# Chord Substitution

MAJOR CHORDS: Substitute RELATIVE MINOR or SECONDARY RELATIVE MINOR chords. For C use Am or Em

> C F **G**7 C Dmi G7 С A7 C Ami(7) Dmi(7)G7 Emi(7)Dmi(7) A7 G7 C

#### MINOR CHORDS: Substitute RELATIVE MAJOR. For Am use C

This: becomes:

**Optional**:



#### SEVENTH CHORDS: Substitute DOMINANT MINOR. For C7 use Gm



This rule may sometimes be reversed, as shown below:



ALL CHORDS: Substitute any chord which has as its root the FLAT FIFTH of the original chord. For C use Gb. The type of chord used (major, minor, seventh) depends upon the desired harmony. A few examples:



In places where the melody indicates no STRONG preference for chord type (as in the last two "turnaround" measures of a song where no melody exists), seventh chords may replace minors. Each of the following examples could be played in place of C Am Dm G7:



## Substitute Patterns



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MINOR chords connect the subdominant chord to the tonic chord:



ALL chords may be connected by moving into the chord from a half-step (one fret) above or below:



Here is a blues to illustrate the half-step (one fret) connection principle. The whole thing can be played using this one fingering:



Use other fingerings if you like. Try Am7 or A7+5±9 in the 9th measure.



These are more than just one-fret "slurs". The "pickup" chord is D7+5+9, moving down to G13 and G9 in the 1st measure. The final chord in that measure is  $G7+5\pm9$  or Db13/Db9. Analyze these chords:



Another way to add harmonic interest to a chord pattern is to "back-cycle" through the order of dominants (cycle of fifths). This should illustrate:



NOTE: The principles of chord embellishment, substitution and connection are THEORETICALLY applicable to any given chord pattern. You'll find that some of them work nearly all the time, and some others less frequently. Try to use them in songs, and LISTEN! Your ear will tell you when it's right.

# Symmetric (Chromatic) Chords

Most chords can be moved up or down the fingerboard in almost any interval (half-steps, whole-steps, major or minor thirds) PROVIDED that the final chord in the symmetric sequence resolves properly into the following chord.

This study uses a single fingering throughout:



Analyze the chords below. The top four tones in each are identical. Depending upon the bass-line used, the study above could be played against C7, Gm, Gb7 or Em chords.



If that study were played against a C7 chord, the bass-line could move symmetrically with the chords, or just pedal a "C" note:



For the same chord (C7-5) the Gb bass note could move up with the chords, or be sustained as a pedal tone in the rhythm section:



You know that a Diminished 7th chord moves up or down the fingerboard in minor third intervals. The same is true of ANY chord which has a "diminished" character (7-9, 7-5, 13-9, 7+5-9, etc.)

C7-5-9 up and down in minor thirds:



The "C7" chord in the study above could resolve into an F chord at any of the "C7" points, or from either of the "Gb7" points. The "Eb7" and "A7" chords would not resolve well into F.

You needn't limit the symmetric motion to minor thirds. In the next study, F7-9 moves quite a lot before resolving into B<sup>b</sup>7-9:



Add appropriate bass-notes to hear the true chord sound.



In symmetric harmony, the chords move from one "good" point to another. What takes place between those points is up to your ear.

F13 up in minor thirds:





Try the same thing with F13-9:



F7+5+9 or B13 down in minor thirds. Resolve F7 into Bb, B13 into E:









Fm7/Bb7 to Eb or Dm7/G7 to Cm:



This study uses an Ebm triad moving symmetrically down in minor thirds. It could fit Ebm, Cy, Gb7, Cm or Ab7 Chords.

C7-5-9 down in minor thirds:



These are just a few ideas, to help illustrate the point. The guitar is built a certain way, and lends itself to this kind of chordal thinking. Experiment until you get the feel of it. Your ear will tell you when it's right.

### Part Two: Melody

Good improvising is humming or singing a melody in your mind while simultaneously playing that melody on the guitar. The sound must be in your ear and in your hand.

One of the goals of this part of the book is to provide you with some basic skills in coordinating the ear/hand relationship. More importantly, the studies and solos are designed to acquaint your ear with more MODERN sounds than are normally included in guitar books. You may have to do a lot of thinking and listening, but with a little effort you can force your ear into new harmonic ground faster than the normal process of on-the-job experience would take you there.

Every study should be transposed to all keys, and played in all possible fingerings and positions on the fingerboard. Studies which cover a range of one octave should be extended to two-octave or three-octave figurations, etc. Work them into your own music, improvise only after learning the patterns. Think in terms of SOUNDS always.

Scale of G major:



Altered to fit G7 chord:

Chord scales are formed by altering the root scale to conform to the SIGNIFICANT chord tones. When playing against a G7 chord, the G major scale is altered to include the 7th (F), rather than the ma7th (F $\ddagger$ ). The chord scale of G7-5 would be altered to include the flat 5th (Db).

The G7 chord scale contains no sharps or flats. It is equivalent to the scale of C major. Within certain limitations, the C major scale fits the sound of all the following chords:



Analyze each measure carefully. It will become apparent that the scale of C major does not ALWAYS apply to every chord shown in the example. A breakdown follows:

First measure fits C, C6, Cma7, Cma9, C6/9

Second measure fits Dm, Dm7, Dm6, Dm9, Dm11. These sounds apply to any "Dm" chord going to G7 and C.

Third measure fits Em7 when used as Secondary Relative Minor substitute for C. If the chord were Em6 or Em9 the scale would include  $F_{\pi}^{\#}$  and  $C_{\pi}^{\#}$  (D major scale.)

Fourth measure fits any F chord (F6, Fma7) used as a substitute for Dm. For a true "F major" sound, the scale would include  $B^{\flat}(F major scale.)$ 

Fifth measure fits G7, G9, G11, G13. All the unaltered "G7" chords going into C major.

Sixth measure fits Am, Am7, Am9 when used as substitutes for C. For Am6 the scale would include F# (G major scale.)

Seventh measure fits Bm7-5 going into E7(+5-9) and Am. For this chord, use (a) the Am natural minor scale (same as C major scale) or (b) the Am harmonic minor scale.

Am harmonic minor scale fits these chords:



Combining the minor scales produces results like this:



Minor chord scales may resolve into major chords:



The reverse of that is often (but not always) true. Dm9 and G13, for example, each contain the MAJOR 3rd of C. While those chords may be resolved into a Cm chord, the line will imply a stronger minor sound if they include the MINOR 3rd (Eb). That is, G7+5 to Cm is a more minor sounding resolution than G13 to Cm.

Minor chord scales are easy to form, if you keep in mind HOW the chord is being used. Notice the different chord scales used for Am in this study:

C major (Am natural minor) scale



F major scale (Am is secondary relative minor to F)



G major scale



Am harmonic minor scale



Gm harmonic minor scale



Gm natural minor (Bb major)scale



(Ascending) Cm melodic minor scale (Cm6=Am7-5)



The F $\natural$  in this last example could be played as F $\ddagger$ , to sound like the major 3rd of D7 and the major 7th of G.

This study illustrates the implied chord-sounds in the C major scale. The scale, played from "C" to "C", sounds like C, Cma7, C6. Played from "D" to "D" it sounds like Dm, Dm6, Dm7, etc.



Below is a standard chord progression, showing the proper chord scales.



In the first measure above, the Fm7 chord could also be played using D\$ instead of Db. (Scale of Ebmajor).

Another example. In this study, the A7 chord in the 6th measure could be played using the Dm harmonic minor scale. That sounds more like A7+5-9:



NOTE: Thinking in terms of "equivalent" scales is fine for study purposes, while your ear is learning to "hear" chord scale sounds. When improvising, you should be aware of the chords as separate entities because (as later studies will show) there are certain sounds that might fit one kind of chord (seventh) but not all others (major or minor).

The practical value of these equivalents is that while you may be THINKING of G7, for example, your left hand works in the familiar habit patterns of the C major scale.

## Altered Scales

In the same way that chords can be altered (+5, -5, +9, -9 etc.) the chord scales may also be altered to include those sounds. The following studies move from a "pure" G7 scale to some more modern sounds.





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Keep your thinking simple on these. Each study has a certain sound of its own, but they are all basically G7 sounds. Think G7.

If some of these sound a little strange, go ahead to the Ear Training studies, come back and try these later.

# Ear Training

Most scale studies tend to take the ear away from the basic chord sound. In the following example, only the C major scale is used, but it SOUNDS as if the chords were moving from C to Dm7, Em7, F, etc.



That same scale pattern may be played this way:



It isn't necessary to play the notes exactly as they appear above. Just try to keep hearing the chord root, C.

Another good study for ear training (and developing chord scales) is this one:



Use Bb in that last measure and play C9. Then play up to Eb and play C7+9, and so on.

A variation on the same idea:



Minor scales may be practiced in the same way, but there are three kinds of minor scales. Their differences involve the 6th and 7th scale tones:

NATURAL minor scale (Cm)



HARMONIC minor scale (Cm)



MELODIC minor scale (Cm)



In the following studies, the 6th and 7th scale tones may be played as flats or naturals. The notes which can be played both ways are marked with a "natural" sign in parenthesis (;):



Each line shows a chord, its scale and arpeggio. Recommended practice sequence: chord, scale, chord, arpeggio, chord. Transpose to all keys, fingerings and positions.

#### MAJOR CHORDS:







SEVENTH CHORDS:







There are many variations possible in altered 7th chord scales. A few examples are shown below. Don't spend too much time on these until you've finished the more basic chord scales and arpeggios.

This sounds more modern than the "pure" C7-5 scale above. This includes the sharp and flat 5th and 9th:



Even more modern sounding. End on different chords for variety:



#### MINOR CHORDS:



Notes preceded by a "natural" sign in parenthesis (\$) may be played asb or\$. Try all combinations.





When in doubt about the variations in altered minor scales, think of where the chords are progressing. Below are three versions of a Cm7-5 chord scale (note key signatures):



Line 1 uses the B<sup>b</sup> m harmonic minor scale. Line 2 uses the natural minor scale (same as D<sup>b</sup> major). In each of these two lines, the F7 chord might be played as F7+5-9.

Line 3 uses the B<sup>b</sup> major scale, but G is flatted to conform to the chord sound. The F7 chord might be played as F13-9.

In the following study, line 1 uses Bb natural minor scale, moving into F7+5±9 and Bbm.

The "D" note in line 2 may be played as  $D^{\flat}(B^{\flat}harmonic minor scale)$  or as  $D^{\natural}$ , going into F7 and  $B^{\flat}$  major.



Start and end these studies on different notes or beats for variety. Here are five variations on the same phrase:



## Whole Tone Scales

Whole tone scales may be played over any \$5 or \$5 chord. Analyze the "C" whole tone scale below:



That scale fits C7+5, C7-5, C+ or C9 $\pm$ 5 chords. When the  $\ddagger$ 9 and  $\flat$ 9 are used in combinations with whole tone passages, they fit ALL the "C7" chords: C7+5-9, C13-5-9, C7+5+9, etc.

C7+5+9





Combinations: C7±5±9





The next four examples fit G+, G7+5, G7-5 or basically any "G7" chord:



Whole tones move chromatically through dominant passages:



Whole Tone Blues



Improvise some whole tone combinations in the blank measures, above.

# Chord Resolutions

Here are four studies showing the resolution of G7 into C (or C7). Line 4 can go to Cm if the last note is changed to Eb. Lines 1 and 3 could also stay in G7. Try to play the chords with the melody, to help your ear.



In the transition from one chord scale to another, there is a "lead-in" note which signals the point of departure from the preceding chord, and implies the sound of the chord to follow.

In each of these examples, the "lead-in" is the first note in the second measure:



See what you can do by changing one or two notes:

G7 to Gb





G7 to Db





G7 to Bb7



Flat B, E and A in the first measure (above) for Fm7 to Bb7



G7 to Bb7 (End on different chord tones for Bb7-9, etc.)



G7 to Bb7 (Try using Bb, Eb, Ab in the first measure for Fm7 to Bb7)





G7 (-9) to Cm G7 Cmi

This same phrase appears in the 3rd and 4th measures, below:



G to E7



Extend these into longer lines. The last example (above) begins this next extension:



The same (or similar) phrase may be repeated through the chord changes.









**Diminished Chords** 



Here are five practice patterns, ascending and descending. The first two use only the tones of the diminished seventh chord. The last three involve "slurs" into those tones from a half-step away:



# **Diminished Substitutes**



Notice the similarity between G7-9 and  $Ab^2$ . Every 7-9 chord is (with root omitted) equivalent to a diminished chord one half-step higher. That is, diminished-sounding scales may be applied to 7-9 chords, and vice-versa.



Below is a common chord pattern, using 7-9 substitutes for the diminished chord. Note use of #5 in those chords.











Three more variations on the same pattern (G to G#° to Am7 to D7). Note the use of A7+9 for Am7:



Some 16th-note variations on the first two measures:



In this study, E7 becomes Bm7-5/E7-9. This gets pretty far away from the original "diminished" sound, but may be used with discretion:



Chordal Thinking



The chord shown above is Cm7-5. It is also  $E^{\flat}m6$  or  $A^{\flat}9$  with root omitted. When playing a line against that chord you can THINK in Cm:



or think in Ab: (note key signature)



or in Ebm:



Depending upon where the chord is progressing, you can THINK in terms of what is most familiar to you. Resolve Cm7-5 to F7-9/Bbm. Resolve Ab9 to Db, and Ebm6 to Ab7/Db.

Here is a line "translated" from thinking in G to thinking in Db. In this particular example, thinking in Db results in fewer accidentals, but that should not be your ONLY consideration. Think in terms of LOGICAL chord sequences: G7-5 to C, Db7-5 to Gb.



Some G7 lines. These fit G7+, G7-5, G7+5-9, etc. "Translate" each from G to Db.







Extend this chord scale:



to this:



Two more examples. Try to play a chord with the melody, to help your ear, and resolve into an appropriate chord: G to C,  $D^{\flat}$  to  $G^{\flat}$ .



# Improvising

One way to develop improvisational skills is to take any common chord pattern and isolate it for study. Each of the following studies shows a chord pattern in the top line. Below it are some improvisations which fit the pattern.

When you've finished these, write out any chord sequence that seems to you a "common" pattern; then improvise.


















The next study fits the pattern: G to Em to Am to D7 (one bar each). No chord symbols appear because you are to make your own analysis.



# Blues

These solos are in straight 8th-notes. By eliminating rhythmic variety, you force the ear into building better melodies. 8th-note studies also tend to avoid the practice of playing memorized licks.

Chord symbols are for your analysis, not necessarily for accompaniment.









This one is in 16th-notes. It gives you more to play on each chord:









## **Minor Blues**



Chord symbols are for analysis, not accompaniment:













## Modern Blues



The chords shown below represent one version of blues changes.





There are many possible variations. The chord symbols in the studies are to help your analysis of the melodic lines, but they'll give an approximation of the proper accompaniment.

These are designed to be played consecutively, so the final measure in each chorus may contain the "pickups" for the following chorus.

























































Improvise in the blank measures:



Modern blues are also played against this chord pattern. Use chord embellishment, substitution, etc.



### **Rhythm Changes**

Rhythm changes are normally played at very fast tempos, so the chord patterns vary, depending on the player. The chart shows two BASIC "rhythm" patterns:



As usual, the chord symbols in each chorus represent the harmonic THINKING in the melody line.

SULPASI - baday (St

Notice the bridge (starting at bar 17) consists of a single two-bar phrase, repeated through the chords:







































#### 3/4 Blues

This is another set of blues changes, in 3/4 time.



The solos are designed to be played consecutively, so the last bar in each chorus may contain the "pickups" to the ensuing chorus.

INTRO:





































































Solo as Recorded by Joe Pass on Pacific Jazz PJ-85 album "For Django".

This chart shows some of the basic chordal thinking used in the solo. With chord embellishment and substitution, variations are almost limitless. No chord symbols are indicated throughout the solo, so you must do your own analysis.



























