

of CASSETTE

IMPROVISING

# Jazz Piano.

by John Mehegan

A brilliant and instructive treatise on jazz piano improvisation, by one of the most distinguished writers on jazz technique. Deals with all aspects, including a survey of piano styles from 1900 to the present day.

A  
John Mehegan  
Book.

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# *Chapter 1*

## The Harmonic Vocabulary (Introduction)

The principle of jazz improvisation involves the abandoning of the melody and the creating of new ideas from the resources of the harmony (chord changes) of a tune, arpeggios, modes, ornamental tones, etc. Because of this, it is essential that the student have a clear and concise idea of the use of harmony in dealing with jazz improvisation.

The diatonic system dating back to the 17th Century forms the basis for the jazz harmonic vocabulary. The diatonic system divides into two sub - systems, the triad system and the seventh chord system.

### The Triad System:

The student is advised to be very familiar with the twelve major scales and, at least, the twelve harmonic minor scales before proceeding with this text.

Lesson: Play the scale - tone triads of Fig. 1 through Fig. 13 in both hands, with the left hand in the octave immediately below the right hand, until they can be played automatically from memory in any key.

Fig. 1 Key of C

I      II      III      IV      V      VI      VII      I

Fig. 2 Key of G

II      III      IV      V      VI      VII      I

Fig. 3 Key of D

I      II      III      IV      V      VI      VII      I

Fig. 4 Key of A

I      II      III      IV      V      VI      VII      I

Fig. 5 Key of E

I      II      III      IV      V      VI      VII      I

Fig. 6 Key of B

I      II      III      IV      V      VI      VII      I

Fig. 7 Key of F $\sharp$  (Enharmonic of G $\flat$ )

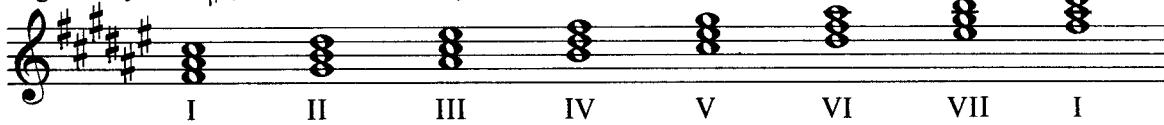


Fig. 8 Key of G $\flat$  (Enharmonic of F $\sharp$ )



Fig. 9 Key of D $\flat$



Fig. 10 Key of A $\flat$

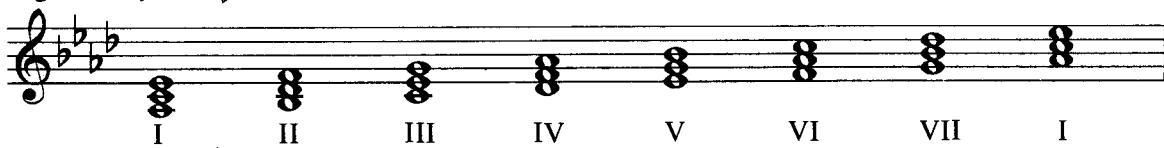


Fig. 11 Key of E $\flat$



Fig. 12 Key of B $\flat$

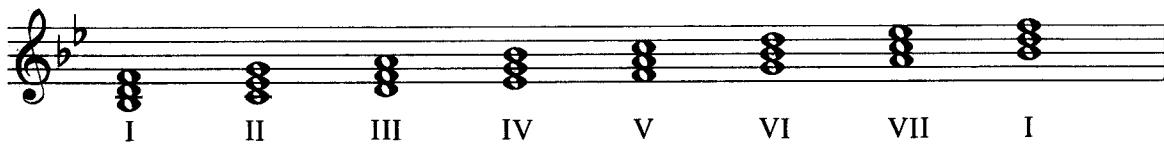
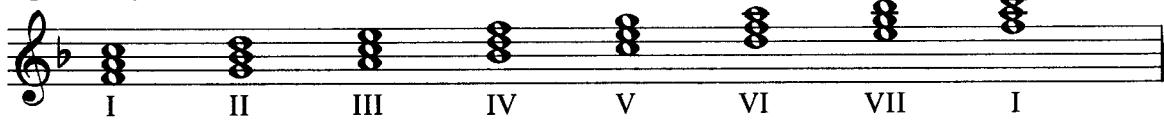


Fig. 13 Key of F



## Intervals (Part 1)

These triads consist of three alternate scale tones sounded simultaneously.

The interval between the lowest and middle note is a 3rd; the interval between the lowest and highest note is a 5th.

Rule: If the upper note of a 3rd is contained within the diatonic major scale of the lower note, it is major (M). If it is lowered, it is minor (m). If it is raised, it is augmented (+).

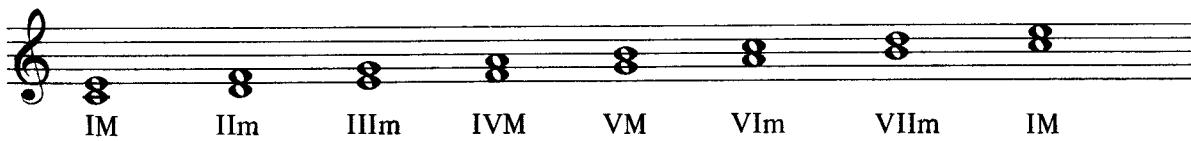
Fig. 14.



Thus, in the Key of C:

- I Based on the scale of C, C-E is major (M)
- II Based on the scale of D, D-F is minor (m)
- III Based on the scale of E, E-G is minor (m)
- IV Based on the scale of F, F-A is major (M)
- V Based on the scale of G, G-B is major (M)
- VI Based on the scale of A, A-C is minor (m)
- VII Based on the scale of B, B-D is minor (m)

Fig. 15



*This is true in all keys*

Rule: If the upper note of a 5th is contained within the diatonic major scale of the lower note, it is perfect (P). If it is lowered, it is diminished (o). If it is raised, it is augmented (+).

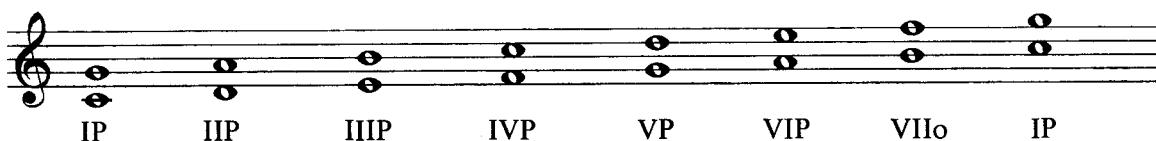
Fig. 16



Thus, in the Key of C:

- I Based on the scale of C, C-G is perfect (P)
- II Based on the scale of D, D-A is perfect (P)
- III Based on the scale of E, E-B is perfect (P)
- IV Based on the scale of F, F-C is perfect (P)
- V Based on the scale of G, G-D is perfect (P)
- VI Based on the scale of A, A-E is perfect (P)
- VII Based on the scale of B, B-F is diminished (o)

Fig. 17

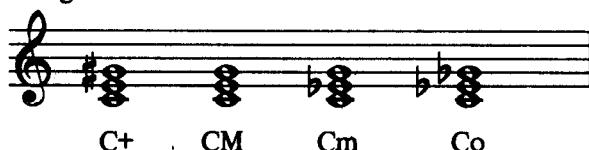


*This is true in all keys*

Combination		Position	Chord Quality
3rd	5th		
M	+	See note	augmented (+)
M	P	I - IV - V	major (M)
m	P	II - III - VI	minor (m)
m	o	VII	diminished (o)

Note: The augmented triad does not appear in the major diatonic system. (It does appear in the minor diatonic system.) It is included here because of its common usage in tunes.

Fig. 18



Rule: In any key, I, IV and V are major; II, III and VI are minor; VII is diminished. The augmented triad is added to the system.

## Letters versus Numerals

Throughout this text the student will notice the interchangeable use of letters and numerals. Depending upon the specific problem under consideration, both are permissible. Illustrations, such as the Harmonic Vocabulary in which no key center is involved, obviously submit to lettered spelling; on the other hand, chord progressions or chord charts of tunes involving a key center demand the use of numerals in order to give the student a sense of key center unity which every experienced jazz musician uses as a natural process whether or not he or she is intellectually aware of the use of numerals. Numerals or figured bass (basso continuo) evolved during the Renaissance, and for some five centuries has been the classical vocabulary employed in music schools throughout the world. Ironically, improvisors in the classical tradition have historically employed numerals when performing in order to be free of the bondage of notation. Letters have never been employed (except for simple identification) in the classical field. The use of letters began in the early part of the present century; they were originally employed by the publishing industry to assist the average purchaser of sheet music in identifying ukulele or banjo chords. Since many of the early jazzmen were gifted but untrained musicians, they accepted the lettered chords as a readily available language in order to communicate with each other. However, when jazzmen perform, they "pre-hear" the next chord or phrase through a natural numerical estimate of where they are and where they are going. An added advantage involving numerals in progressions and chord charts should be apparent to the student. One set of numerals gives instantaneous twelve key facility since the numerals work for all keys. Otherwise, it would require twelve sets of letters to allow for transposition.

# *Chapter 2*

## **The Seventh Chord System**

Lesson: Play the scale - tone seventh chords of Fig. 1 through Fig. 13 in both hands until they can be played automatically from memory in any key.

Fig. 1 Key of C

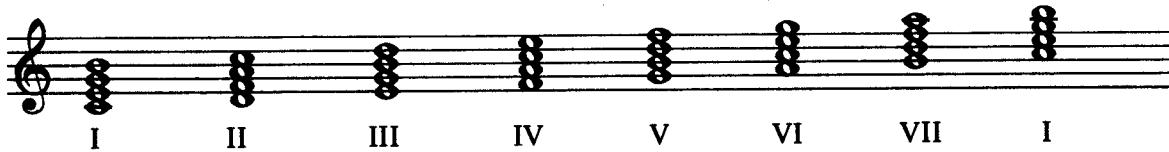


Fig. 2 Key of G

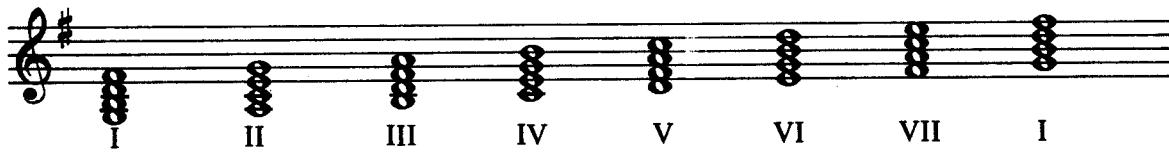


Fig. 3 Key of D

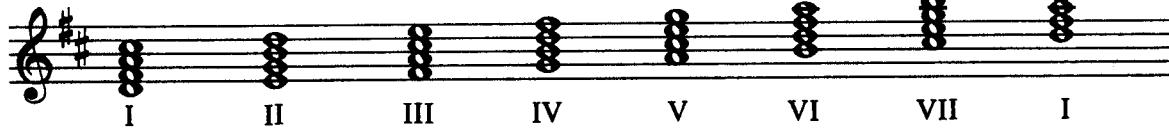


Fig. 4 Key of A

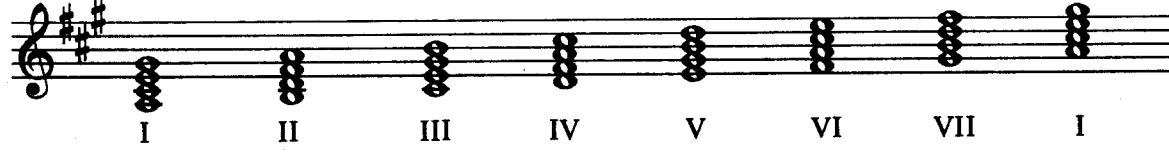


Fig. 5 Key of E



Fig. 6 Key of B

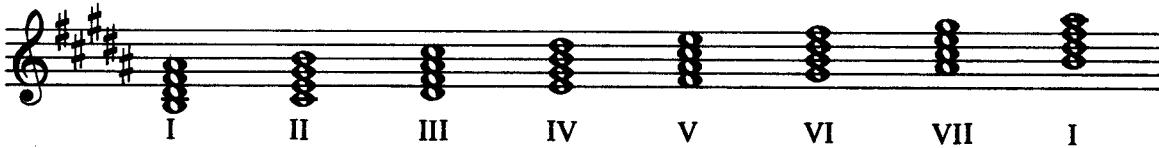


Fig. 7 Key of F# (Enharmonic of Gb)

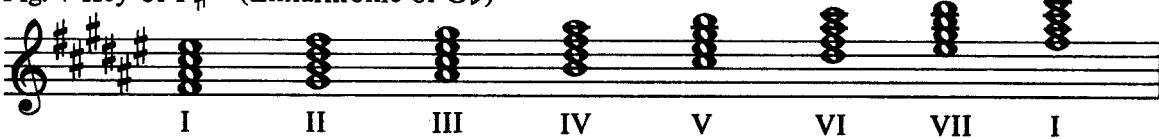


Fig. 8 Key of Gb (Enharmonic of F#)

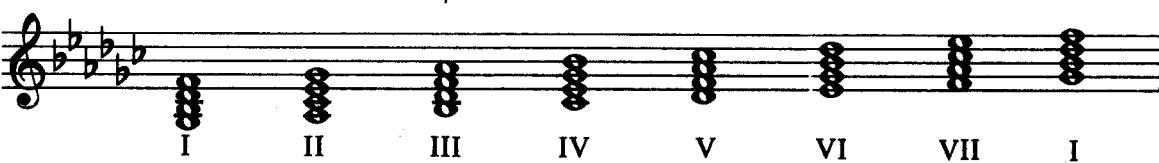


Fig. 9 Key of Db

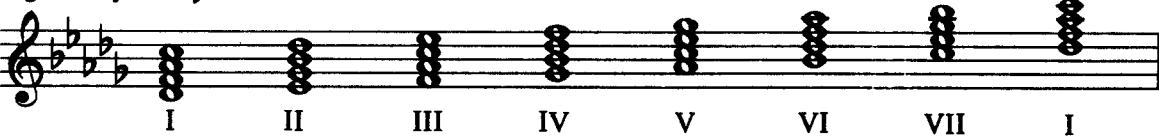


Fig. 10 Key of Ab

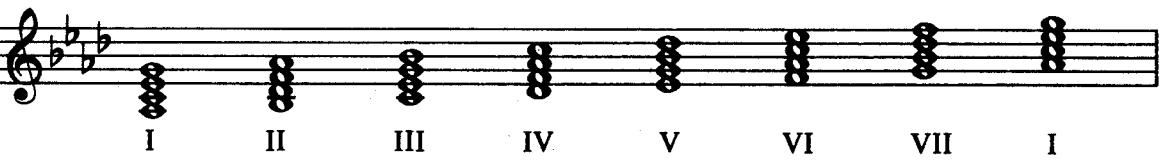


Fig. 11 Key of Eb

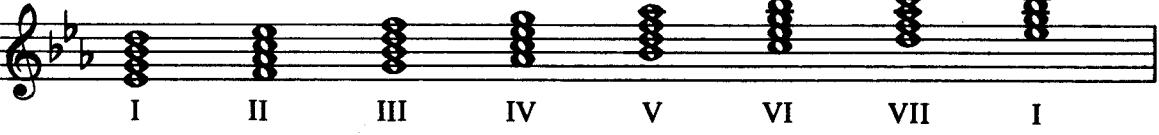


Fig. 12 Key of Bb

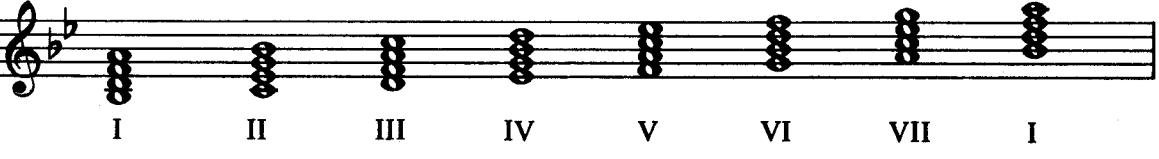
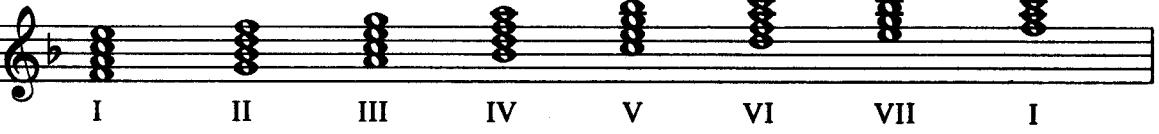


Fig. 13 Key of F



# Chapter 3

## Intervals (Part 2)

On Pages 7 and 8 rules for thirds and fifths were presented. The following indicates the general rule for all intervals:

If the upper note of a 2nd, 3rd, 6th or 7th is contained within the diatonic major scale of the lower note, it is major (M). If it is lowered, it is minor (m). If it is raised, it is augmented (+).

Fig. 1

A musical staff with a treble clef and four measures. The first measure shows a 2nd interval (two notes) with notes C and D. The second measure shows a 3rd interval with notes C and E. The third measure shows a 6th interval with notes C and A. The fourth measure shows a 7th interval with notes C and B. Below each measure is its name: M2, m2, +2, M3, m3, +3, M6, m6, +6, M7, m7, +7.

If the upper note of a 4th, 5th or 8th (octave) is contained within the diatonic major scale of the lower note, it is perfect (P). If it is lowered, it is diminished (o). If it is raised, it is augmented (+).

Fig. 2

A musical staff with a treble clef and four measures. The first measure shows a 4th interval with notes C and G. The second measure shows a 5th interval with notes C and A. The third measure shows an 8th (octave) interval with notes C and C. Below each measure is its name: P4, o4, +4, P5, o5, +5, P8, o8, +8.

Fig. 3 Key of C

A musical staff with a treble clef and eight measures. The measures represent the chords of the key of C major: I (C), II (D), III (E), IV (F), V (G), VI (A), VII (B), and I (C). The chords are shown as stacked root position triads.

I Based on the scale of C, C - E is major (M)

II Based on the scale of D, D - F is minor (m)

III Based on the scale of E, E - G is minor (m)

IV Based on the scale of F, F - A is major (M)

V Based on the scale of G, G - B is major (M)

VI Based on the scale of A, A - C is minor (m)

VII Based on the scale of B, B - D is minor (m)

I Based on the scale of C, C - G is perfect (P)

II Based on the scale of D, D - A is perfect (P)

III Based on the scale of E, E - B is perfect (P)

IV Based on the scale of F, F - C is perfect (P)

V Based on the scale of G, G - D is perfect (P)

VI Based on the scale of A, A - E is perfect (P)

VII Based on the scale of B, B - F is diminished (o)

- I Based on the scale of C, C-B is major (M)
  - II Based on the scale of D, D-C is minor (m)
  - III Based on the scale of E, E-D is minor (m)
  - IV Based on the scale of F, F-E is major (M)
  - V Based on the scale of G, G-F is minor (m)
  - VI Based on the scale of A, A-G is minor (m)
  - VII Based on the scale of B, B-A is minor (m)

### In all Keys:

Combination	Position	Chord Quality
3rd 5th 7th		
M P M	I - IV	major 7th
M P m	V	dominant 7th
m P m	II - III - VI	minor 7th
m o m	VII	half diminished 7th*

\*Note: The term “half diminished” may be new to the student although it has wide usage in the classical nomenclature and, mainly through the efforts of the late Bill Evans, has begun to appear in contemporary jazz originals. The term is derived from the fact that the “full” diminished 7th chord (as we shall see) employs two diminished intervals (o5, o7), whereas the “half - diminished” chord employs only one diminished interval (o5).

Fig. 4

A musical staff with two chords. The first chord, labeled "C#7", consists of notes G, B, D, and F#. The second chord, labeled "Co7", consists of notes G, B, D, and E. A bracket above the staff indicates that the notes B and D are enharmonic equivalents, meaning they sound the same but are written differently (B natural vs. D flat).

## The Diminished Seventh Chord:

The diminished seventh chord does not appear in the major diatonic system. (It does appear in the minor diatonic system.) This chord contains a minor 3rd, a diminished 5th and a diminished 7th (lowered twice from the seventh scale position). (See Fig. 5)

Fig. 5

M<sup>7</sup>th.      m<sup>7</sup>th      o<sup>7</sup>th      o\*  
(Enharmonic)

\*Note: Although written as C - A, with the m 3rd and o 5th it remains a o7th.

A musical staff consisting of five horizontal lines. A treble clef is positioned at the top left. In the center, there is a sharp sign (F#) above a B-flat sign (Bb). To the right of these, there is a sharp sign (C#) above a C-sharp sign (C#).

# The Sixty Chord System

Fig. 6. illustrates the Sixty Chord System used in jazz harmony. It consists of five different qualities which can be applied at any point on the keyboard.

There are twelve tones in the octave, each capable of supporting the five qualities; thus, the Sixty Chord System.

Transferring to sharps on m, ø, and o is for ease of "spelling" these chords.

Fig. 6

CM7    Cx7  
\*    Cm7    Cø7    Co7

DbM7    Dbx7    C#m7    C#ø7    C#o7

DM7    Dx7    Dm7    Dø7    Do7

EbM7    Ebx7    Ebm7    D#ø7    D#o7

EM7    Ex7    Em7    Eø7    Eo7

FM7    Fx7    Fm7    Fø7    Fo7

Enharmonic

F#M7    F#x7    F#m7    F#ø7    F#o7

GbM7    Gbx7    Gbm7    F#ø7    F#o7

GM7    Gx7    Gm7    Gø7    Go7

AbM7    Abx7    Abm7    G#ø7    G#o7

AM7    Ax7    Am7    Aø7    Ao7

BbM7    Bbx7    Bbm7    A#ø7    A#o7

BM7    Bx7    Bm7    Bø7    Bo7

\*Note: The use of the symbol x for the dominant chord is explained in the following chapter.

## **The Seventh Chord Symbols**

### **The Major Seventh Symbol:**

With the exception of the recent use of a triangle symbol ( $\Delta$ ), the traditional major symbol has always been either M7 or maj7. In this text the symbol M7 will be used.

### **The Dominant Seventh Symbol:**

The traditional dominant symbols have always been 7 or 9 or 13 (C7, F9, etc.). The historical reason for this lay in the harmonic vocabulary of early jazz which employed the major triad, the minor triad, the diminished triad, the augmented triad and a fifth chord which demanded the use of the seventh, thus the 7 chord. Since all the seventh chords contain a seventh of some kind, it is apparent that the symbol 7 is improper. In this text the Juilliard symbol x7 will be used to indicate the dominant chord in any form (Cx7, E $\flat$ x7, B $\flat$ x9, etc.).

### **The Minor Seventh Symbol:**

The traditional symbols for the minor seventh chord have been m7 or min.7. In this text the symbol m7 will be used.

### **The Half Diminished Symbol:**

The half diminished symbol is only beginning to enter the public area. Traditionally it has been treated as minor 7 $\flat$ 5(m7-5) or its first inversion minor 6 (m6). The symbol for half diminished is  $\emptyset$ 7 and will be employed in this text.

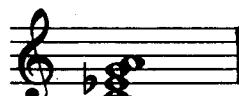
### **The Diminished Seventh Symbol:**

The traditional symbols for diminished have been a zero (o) or dim. The text will employ o7 in referring to both intervals and chords.

### **The Minor Sixth Symbol:**

The term minor sixth (m6) can mean different things at various times, e.g. sometimes Cm6 means a minor triad with an added sixth. (See Fig. 1)

Fig. 1



But, in some notation, the term Cm6 can really mean A $\phi$ 7.Cm6(first inversion of A $\phi$ 7) is the more familiar approximation of A $\phi$ 7 or Am7 **$\flat$** 5. In this text all root position  $\phi$ 7 chords will be indicated as such; the minor sixth chord will appear as minor added sixth (m $^{+6}$ ) to avoid confusion with "6" as employed in inversions to be studied later. The same is true of major added sixth (M $^{+6}$ ).

#### Symbol Summary:

M <sup>T</sup>	= major triad
m <sup>T</sup>	= minor triad
o <sup>T</sup>	= diminished triad
+	= augmented triad
M7	= major seventh
x7	= dominant seventh
m7	= minor seventh
$\phi$ 7	= half diminished seventh
o7	= diminished seventh
M $^{+6}$	= major added 6th
m $^{+6}$	= minor added 6th

Fig. 2 Key of C

CM<sup>T</sup> Cm<sup>T</sup> Co<sup>T</sup> C+ \* CM7 Cx7 Cm7 C $\phi$ 7 Co7 CM $^{+6}$  Cm $^{+6}$

\*Note: The augmented triad is not indicated by "T" since the augmented chord does not appear in the seventh chord system.

See the complete Harmonic Vocabulary in Chapter 8 for further illustration of the total system.

## **Altered Triads**

The triads appearing in Chapter I and the seventh chords in Chapter 2 are shown in their primary functions; in other words, as the scale naturally forms them.

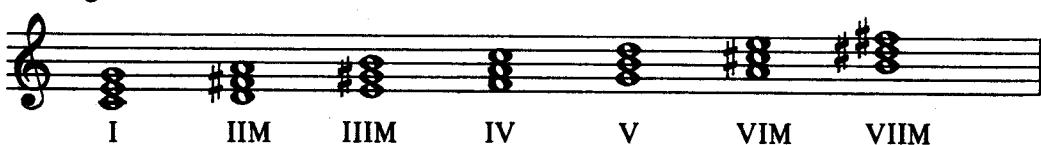
If our use of harmony was limited to these primary functions we would be unable to perform even the simplest jazz material.

Fortunately, the diatonic system readily lends itself to alteration. These alterations sub - divide into secondary functions and tertiary functions.

### **Secondary Functions:**

**Rule:** A secondary function involves the raising or lowering of the 3rd and/or 5th of a triad; or the 3rd, 5th and/or 7th of a seventh chord to form a new chord or quality on any tone of the scale. (See Fig. 1)

Fig. 1



In Fig. 1 the triads I - IV - V are naturally major;  
II - III - VI are minor which required raising the third in each case;  
VII is diminished which required raising both third and fifth in order to form major.

The following alteration table describes the intervals to be altered in order to form various triad qualities. (See Fig. 2)

Fig. 2

	Quality	Position			
	M	I	-	IV	V
Alteration	#5		b3		b3 b5
New Quality +		m			o

	Quality	Position			
	m	II	-	III	VI
Alteration	#3 #5		b3		b5
New Quality +		M			o

	Quality	Position			
	o	VII			
Alteration	#3 x5		b3 b5		#5
New Quality +		M			m

	Quality	Position			
	+		none		
Alteration	b5		b3 b5		b3 bb5
New Quality M		m			o

on:

Complete the following triad qualities. Check your result against the Harmonic Vocabulary in Chapter 8.

Tertiary Functions:

Rule:

A tertiary function involves raising or lowering an altered or unaltered chord chromatically out of the key. (See Fig. 4)

Key of C

Rule:

In the chromatic harmonic system of jazz any chord can be built on any tone in the chromatic scale by altering, lowering or raising any chord in the diatonic system.

# *Chapter 6*

## **Altered Seventh Chords**

Triad harmony is used extensively in rock, country music and folk music as it was in Dixieland jazz from 1900 to 1920. In this period the only 7th chord employed was the dominant 7th but, gradually, through the twenties and into the early thirties, the seventh chord system began to replace the triad system until by 1934, with the development of the Goodman and Ellington bands, the seventh chord system with its extensive use of 9ths, 11ths and 13ths became the lasting language of jazz.

### **Secondary and Tertiary Functions:**

As indicated in Chapter 5, the secondary and tertiary functions are formed by altering the 3rd, 5th and/or 7th or by lowering or raising the chord chromatically. See Fig. 1.

Fig. 1 Key of C

A musical staff in G clef. It shows three chords: I (C major), Io (secondary) (G major), and Io (tertiary) (B major). The chords are represented by vertical stacks of three notes each, with the top note being the 7th scale degree.

A musical staff in G clef. It shows three chords: V (G major), Vm (secondary) (D major), and bVm (tertiary) (E major). The chords are represented by vertical stacks of three notes each, with the top note being the 7th scale degree.

A musical staff in G clef. It shows three chords: VII (F major), VIIx (secondary) (A major), and bVIIx (tertiary) (C major). The chords are represented by vertical stacks of three notes each, with the top note being the 7th scale degree.

on:

Fig. 5 is an original tune employing the triad chromatic harmonic system.

The use of the symbol T will not be necessary since the piece consists entirely of triads.

Practice Fig. 5 until it can be played without hesitation.

Fig. 5

Musical score for Fig. 5, first system. The score consists of two staves. The top staff has three measures, each marked with a bracket labeled '3'. The bottom staff shows harmonic progressions: II, V, III, VI, IVm, and bIIIM. The music is in common time.

Musical score for Fig. 5, second system. The score consists of two staves. The top staff has six measures, each marked with a bracket labeled '3'. The bottom staff shows harmonic progressions: III, VIM, bVI, bIIIM, bVm, VIIIM, III, and VIM. The music is in common time.

Musical score for Fig. 5, third system. The score consists of two staves. The top staff has four measures, each marked with a bracket labeled '3'. The bottom staff shows harmonic progressions: II, V, III, VI, IVm, and bIIIM. The music is in common time.

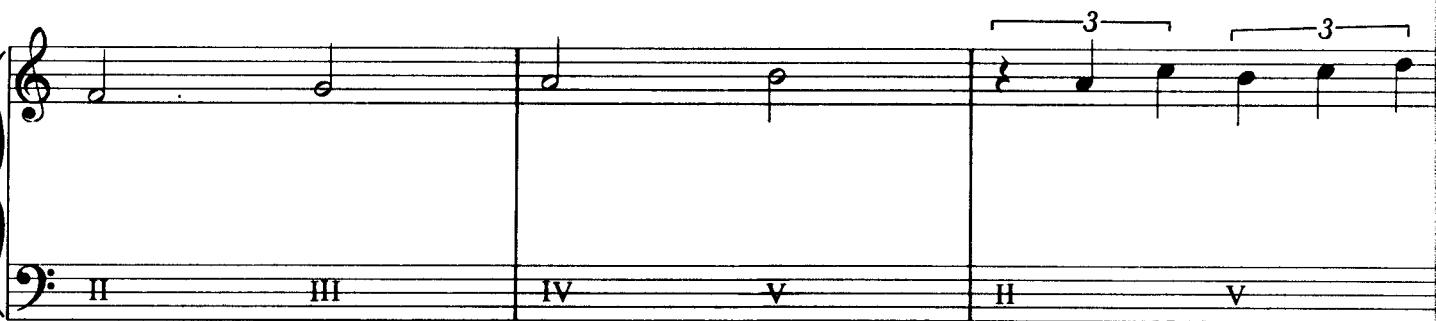
Musical score for Fig. 5, fourth system. The score consists of two staves. The top staff has six measures, each marked with a bracket labeled '3'. The bottom staff shows harmonic progressions: III, VIM, bVI, bIIIM, bVm, VIIIM, III, and VIM. The music is in common time.



Musical score page 1. Treble and bass staves. Measures 1-4. Treble staff: eighth-note patterns. Bass staff: Roman numerals H, V, I, #Io; H, #Ho; III, III+; IV, #IVo.



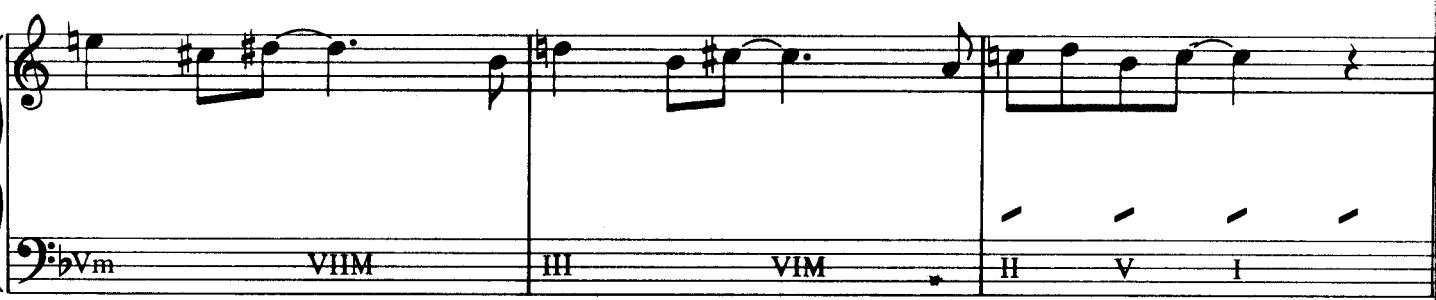
Musical score page 2. Treble and bass staves. Measures 1-3. Treble staff: eighth-note patterns. Bass staff: Roman numerals V; bVo; IVm; III; bIIIo.



Musical score page 3. Treble and bass staves. Measures 1-5. Treble staff: quarter notes. Bass staff: Roman numerals II, III, IV, V, H, V.



Musical score page 4. Treble and bass staves. Measures 1-5. Treble staff: eighth-note patterns. Bass staff: Roman numerals III, VI; IVm, bIIIHM; III, VIM; bVI, bIIHM.



Musical score page 5. Treble and bass staves. Measures 1-5. Treble staff: eighth-note patterns. Bass staff: Roman numerals bVIM, VIM; III, VIM; II, V, I.

The following alteration table describes the intervals to be altered in order to form various seventh chord qualities.

		Quality M7	Position I - IV		
Fig. 2			b3	b5	b7
Alteration	b7	b3 b7	b3	b5	b7
New Quality	x7	m7	∅7	o7	bb7
			Quality x7	Position V	
Alteration	#7	b3	b3	b5	b7
New Quality	M7	m7	∅7	o7	o7
			Quality m7	Position II - III - VI	
Alteration	#3 #7	#3	b5	b5	b7
New Quality	M7	x7	∅7	o7	o7
			Quality ∅7	Position VII	
Alteration	#3 #5 #7	#3 #5	#5		b7
New Quality	M7	x7	m7	o7	o7
			Quality o7	Position none	
Alteration	#3 #5 #7	#3 #5 #7	#5 #7		#7
New Quality	M7	x7	m7	∅7	∅7

Lesson:

Fig. 3 is an original tune employing the seventh chord chromatic harmonic system.

The use of the Arabic numeral 7 will not be necessary since there are no triads in the piece.

Practice Fig. 3 until it can be played without hesitation.

Fig. 3 Key of C

The musical score consists of four staves of music, each with a treble clef and a bass clef. The music is in common time (indicated by '4'). The first staff starts with a '7' over a note, followed by a measure with a '3' over a note. The second staff starts with 'IIø', followed by 'IVø', 'III', and 'VIx<sup>b5</sup>'. The third staff starts with 'bIII', followed by 'bVIx<sup>b5</sup>', 'II', 'III', 'IVm', and 'Vm'. The fourth staff starts with 'bVI', followed by 'bIIx<sup>b5</sup>', and 'IIø'. The fifth staff starts with '3' over a note, followed by 'bIIx<sup>b5</sup>' and 'IIø'. The sixth staff starts with 'IVø', followed by 'III', 'VIx<sup>b5</sup>', 'bII', and 'bVIx<sup>b5</sup>'.

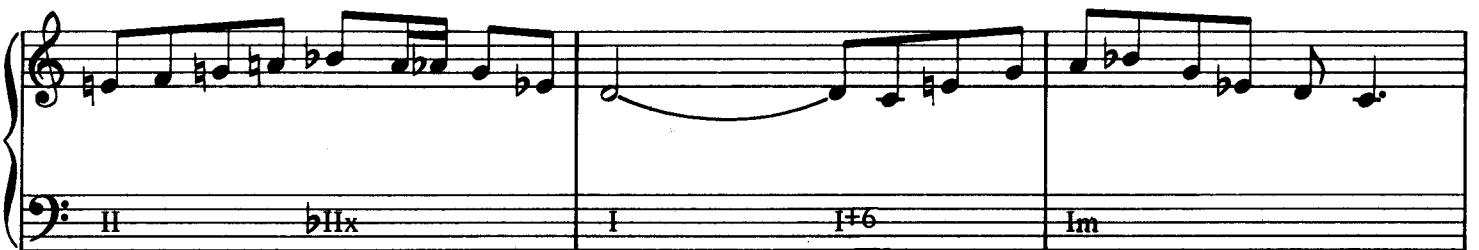
\* Note: The  $x\overline{b}5$  chords in measures 3, 4, 11, 12, 27 and 28 should be played with the anticipated (tied) figures; also the m chords in measures 5, 6, 13, 14, 29 and 30.



Musical score page 1. Treble and bass staves. Measures 1-5. Key signature changes: II, III, IVm, Vm, bVI, bIIx<sup>b5</sup>. Measure 5 ends with a fermata over the bass note.



Musical score page 2. Treble and bass staves. Measures 6-10. Key signature changes: I, I+6, Vm, IVm, bIII, bII.



Musical score page 3. Treble and bass staves. Measures 11-15. Key signature changes: II, bIIx, I, I+6, Im.



Musical score page 4. Treble and bass staves. Measures 16-20. Key signature changes: #II, #IVm, VI.



Musical score page 5. Treble and bass staves. Measures 21-25. Key signature changes: II<sup>b</sup>, IV<sup>b</sup>, III, VIx<sup>b5</sup>, bIII, bVIx<sup>b5</sup>.



Musical score page 6. Treble and bass staves. Measures 26-30. Key signature changes: II, III, IVm, Vm, bVI, bIIx<sup>b5</sup>, I.

# Chapter 7

## Inversions

### Inversions (Triads)

An inversion results from re-arranging the tones of a chord in such a way that the root of the chord is no longer in the bass. (See Fig. 1)

Fig. 1 Key of C



The traditional symbols for triad inversions are formed by counting the number of scale tones from the bass note to each of the remaining tones in the chord. Thus, in Fig. 1 the distance from E to C in the first inversion is a 6th; the distance from E to G is a 3rd. Thus, the symbol for first inversion is  $\frac{6}{3}$  or, more usually, 6. In the second inversion the distance from G to E is a 6th; the distance from G to C is a 4th. Thus the symbol for second inversion is  $\frac{6}{4}$  and that is never modified. Fig. 2 illustrates the triads of C with their inversions.

Fig. 2 Scale-tone triads of C and their inversions.

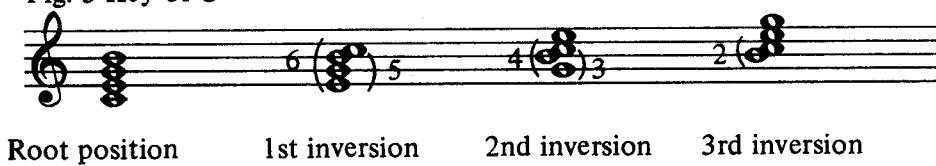
The grid shows the following triads and their inversions:

- Row 1: I<sup>T</sup>, I<sup>6</sup>, I<sup>6</sup><sub>4</sub>
- Row 2: II<sup>T</sup>, II<sup>6</sup>, II<sup>6</sup><sub>4</sub>
- Row 3: III T, III<sup>6</sup>, III<sup>6</sup><sub>4</sub>
- Row 4: IV<sup>T</sup>, IV<sup>6</sup>, IV<sup>6</sup><sub>4</sub>
- Row 5: V<sup>T</sup>, V<sup>6</sup>, V<sup>6</sup><sub>4</sub>
- Row 6: VII T, VII<sup>6</sup>, VII<sup>6</sup><sub>4</sub>
- Row 7: I<sup>T</sup>, I<sup>6</sup>, I<sup>6</sup><sub>4</sub>
- Row 8: VII T, VII<sup>6</sup>, VII<sup>6</sup><sub>4</sub>
- Row 9: I<sup>T</sup>, I<sup>6</sup>, I<sup>6</sup><sub>4</sub>

Lesson: Practice the scale-tone triads and their inversions in twelve keys - both hands.

### Inversions (Seventh Chords)

Fig. 3 Key of C



Each inversion of a seventh chord contains an interval of a second (B - C in Fig.3). The symbol for the inversion is formed by counting the scale - tones from the bass note to each of the notes of the second. Thus, in Fig. 3, in the first inversion, E to C is a 6th; E to B is a 5th. Thus, the symbol is  $\frac{6}{5}$ . In the second inversion, G to C is a 4th; G to B is a 3rd. Thus, the symbol is  $\frac{4}{3}$ . In the third inversion B to C is a 2nd. Thus, the symbol is 2.

Fig. 4 illustrates the seventh chords of C with their inversions.

Fig. 4 Scale - tone seventh chords of C with their inversions.

Lesson: Practice the scale-tone seventh chords and their inversions in twelve keys - both hands.

Note: The student will note in Chapter 8 that the diminished seventh chord cannot be inverted since the tones are evenly spaced by minor thirds and no tone is adjacent to another. Of all the chords we have studied only the diminished seventh never loses its original intervals.

# Chapter 8

## The Harmonic Vocabulary

A musical staff with a treble clef and a bass clef. It consists of two measures separated by a vertical bar line. The first measure contains three chords: CM<sup>T</sup>, CM<sup>6</sup>, and CM<sup>7</sup>. The second measure contains three chords: Cm<sup>T</sup>, Cm<sup>6</sup>, and Cm<sup>7</sup>. The bass line is labeled with Roman numerals: I, II, III, IV, V, VI, VII.

A musical staff with a treble clef and a bass clef. It consists of two measures separated by a vertical bar line. The first measure contains three chords: C+ (C major), E+ (E major), and G#+ (G major). The second measure contains four chords: CM<sup>7</sup>, CM<sup>+6</sup>, CM<sup>6</sup>, and CM<sup>7</sup>.

A musical staff with a treble clef and a bass clef. It consists of two measures separated by a vertical bar line. The first measure contains four chords: Cx<sup>7</sup>, Cx<sup>6</sup>, Cx<sup>4</sup>, and Cx<sup>2</sup>. The second measure contains five chords: Cm<sup>7</sup>, Cm<sup>+6</sup>, Cm<sup>6</sup>, Cm<sup>4</sup>, and Cm<sup>2</sup>.

A musical staff with a treble clef and a bass clef. It consists of two measures separated by a vertical bar line. The first measure contains four chords: Cø<sup>7</sup>, Cø<sup>6</sup>, Cø<sup>4</sup>, and Cø<sup>2</sup>. The second measure contains five chords: Co<sup>7</sup>, Ebø<sup>7</sup>, Gbø<sup>7</sup>, and Ao<sup>7</sup>.

Enharmonic

A musical staff in bass clef. The top half shows notes in D<sub>b</sub> major (D<sub>b</sub>, F, A<sub>b</sub>) and the bottom half shows notes in D<sub>b</sub> minor (D<sub>b</sub>, F, A<sub>b</sub>). The notes are labeled below the staff: D<sub>b</sub>M<sup>T</sup>, D<sub>b</sub>m<sup>6</sup>, D<sub>b</sub>m<sup>2</sup>, D<sub>b</sub>M<sup>T</sup>, D<sub>b</sub>m<sup>6</sup>, D<sub>b</sub>m<sup>2</sup>, C<sub>#</sub>M<sup>T</sup>, C<sub>#</sub>m<sup>6</sup>, C<sub>#</sub>m<sup>4</sup>.

A musical staff in bass clef. The notes are labeled below the staff: C<sub>#</sub>O<sup>T</sup>, C<sub>#</sub>O<sup>6</sup>, C<sub>#</sub>O<sup>4</sup>, C<sub>#</sub>, F+, A+.

A musical staff in bass clef. The notes are labeled below the staff: D<sub>b</sub>M<sup>7</sup>, D<sub>b</sub>M<sup>+6</sup>, C<sub>#</sub>M<sup>+6</sup>, D<sub>b</sub>M<sup>2</sup>, D<sub>b</sub>M<sup>1</sup>, D<sub>b</sub>M<sup>2</sup>.

Enharmonic

A musical staff in bass clef. The notes are labeled below the staff: D<sub>b</sub>x<sup>7</sup>, D<sub>b</sub>x<sup>6</sup>, D<sub>b</sub>x<sup>4</sup>, D<sub>b</sub>x<sup>2</sup>, C<sub>#</sub>x<sup>7</sup>, C<sub>#</sub>x<sup>6</sup>, C<sub>#</sub>x<sup>4</sup>, C<sub>#</sub>x<sup>2</sup>.

A musical staff in bass clef. The notes are labeled below the staff: C<sub>#</sub>m<sup>7</sup>, C<sub>#</sub>m<sup>+6</sup>, C<sub>#</sub>m<sup>2</sup>, C<sub>#</sub>m<sup>4</sup>, C<sub>#</sub>m<sup>2</sup>.

Treble staff:  $C\sharp^7$ ,  $C\sharp^6$ ,  $C\sharp^4$ ,  $C\sharp^2$ ,  $C\sharp^7$ ,  $Eo^7$ ,  $Go^7$ ,  $B2o^7$

Bass staff:  $C\sharp^7$ ,  $C\sharp^6$ ,  $C\sharp^4$ ,  $C\sharp^2$ ,  $C\sharp^7$ ,  $Eo^7$ ,  $Go^7$ ,  $B2o^7$

Treble staff:  $D^7$ ,  $D^6$ ,  $D^9$ ,  $Dm^7$ ,  $Dm^6$ ,  $Dm^9$ ,  $Do^7$ ,  $Do^6$ ,  $Do^9$

Bass staff:  $DM^7$ ,  $DM^6$ ,  $DM^9$ ,  $Dm^7$ ,  $Dm^6$ ,  $Dm^9$ ,  $Do^7$ ,  $Do^6$ ,  $Do^9$

Treble staff:  $D^7$ ,  $F\sharp^7$ ,  $A\sharp^7$ ,  $DM^7$ ,  $DM^{+6}$ ,  $DM^5$ ,  $DM^4$ ,  $DM^2$

Bass staff:  $D+7$ ,  $F\sharp^7$ ,  $A\sharp^7$ ,  $DM^7$ ,  $DM^{+6}$ ,  $DM^5$ ,  $DM^4$ ,  $DM^2$

Treble staff:  $D^7$ ,  $D^6$ ,  $D^4$ ,  $D^2$ ,  $Dm^7$ ,  $Dm^{+6}$ ,  $Dm^5$ ,  $Dm^4$ ,  $Dm^2$

Bass staff:  $Dx^7$ ,  $Dx^6$ ,  $Dx^4$ ,  $Dx^2$ ,  $Dm^7$ ,  $Dm^{+6}$ ,  $Dm^5$ ,  $Dm^4$ ,  $Dm^2$

Treble staff:  $D\flat^7$ ,  $D\flat^6$ ,  $D\flat^4$ ,  $D\flat^2$ ,  $Do^7$ ,  $F\flat^7$ ,  $Ab\flat^7$ ,  $Bo^7$

Bass staff:  $D\flat^7$ ,  $D\flat^6$ ,  $D\flat^4$ ,  $D\flat^2$ ,  $Do^7$ ,  $F\flat^7$ ,  $Ab\flat^7$ ,  $Bo^7$

Enharmonic

E<sub>b</sub>M<sup>7</sup> E<sub>b</sub>M<sup>6</sup> E<sub>b</sub>M<sup>9</sup> | E<sub>b</sub>m<sup>7</sup> E<sub>b</sub>m<sup>6</sup> E<sub>b</sub>m<sup>9</sup> D<sup>#</sup>m<sup>7</sup> D<sup>#</sup>m<sup>6</sup> D<sup>#</sup>m<sup>9</sup>

D<sup>#</sup>o<sup>7</sup> D<sup>#</sup>o<sup>6</sup> D<sup>#</sup>o<sup>9</sup> | Eb+ G+ B+ | EbM<sup>7</sup> EbM<sup>9</sup> EbM<sup>9</sup> EbM<sup>4</sup> EbM<sub>2</sub>

Ebx<sup>7</sup> Ebx<sup>5</sup> Ebx<sup>4</sup> Ebx<sub>2</sub> | Ebm<sup>7</sup> Ebm<sup>9</sup> Ebm<sup>6</sup> Ebm<sup>4</sup> Ebm<sub>2</sub>

D<sup>#</sup>o<sup>7</sup> D<sup>#</sup>o<sup>6</sup> D<sup>#</sup>o<sup>4</sup> D<sup>#</sup>o<sub>2</sub> | D<sup>#</sup>o<sup>7</sup> Eb<sup>7</sup> F<sup>#</sup><sup>7</sup> A<sup>7</sup> C<sup>7</sup> | Eb<sup>7</sup> F<sup>#</sup><sup>7</sup> A<sup>7</sup> C<sup>7</sup> | Eb<sup>7</sup> F<sup>#</sup><sup>7</sup> A<sup>7</sup> C<sup>7</sup> | Eb<sup>7</sup> F<sup>#</sup><sup>7</sup> A<sup>7</sup> C<sup>7</sup>

EM<sup>7</sup> EM<sup>6</sup> EM<sup>9</sup> | Em<sup>7</sup> Em<sup>6</sup> Em<sup>9</sup> | Eo<sup>7</sup> Eo<sup>6</sup> Eo<sup>9</sup>

Musical score for measures 1-2:

Top staff (Treble Clef):  $E^+ \quad C^+ \quad C^+ \quad | \quad EM^7 \quad EM^{+6} \quad EM_3^6 \quad EM_3^4 \quad EM_2$

Bottom staff (Bass Clef):  $E^+ \quad C^+ \quad C^+ \quad | \quad EM^7 \quad EM^{+6} \quad EM_3^6 \quad EM_3^4 \quad EM_2$

Musical score for measures 3-4:

Top staff (Treble Clef):  $E^+ \quad C^+ \quad C^+ \quad | \quad EM^7 \quad EM^{+6} \quad EM_3^6 \quad EM_3^4 \quad EM_2$

Bottom staff (Bass Clef):  $Ex^7 \quad Ex_3^6 \quad Ex_3^4 \quad Ex_2 \quad | \quad Em^7 \quad Em^{+6} \quad Em_3^6 \quad Em_3^4 \quad Em_2$

Musical score for measures 5-6:

Top staff (Treble Clef):  $E^+ \quad C^+ \quad C^+ \quad | \quad EM^7 \quad EM^{+6} \quad EM_3^6 \quad EM_3^4 \quad EM_2$

Bottom staff (Bass Clef):  $Eo^7 \quad Eo_3^6 \quad Eo_3^4 \quad Eo_2 \quad | \quad Eo^7 \quad Co^7 \quad Bo^7 \quad Do^7 \quad G^{\#}o^7$

Annotation: Enharmonic bracket covers the transition from  $Eo^7$  to  $Co^7$ .

Musical score for measures 7-8:

Top staff (Treble Clef):  $E^+ \quad C^+ \quad C^+ \quad | \quad EM^7 \quad EM^{+6} \quad EM_3^6 \quad EM_3^4 \quad EM_2$

Bottom staff (Bass Clef):  $Fm^T \quad Fm^6 \quad Fm_4^6 \quad | \quad Fm^T \quad Fm^6 \quad Fm_4^6 \quad | \quad Fo^T \quad Fo^6 \quad Fo_4^6$

Musical score for measures 9-10:

Top staff (Treble Clef):  $E^+ \quad C^+ \quad C^+ \quad | \quad EM^7 \quad EM^{+6} \quad EM_3^6 \quad EM_3^4 \quad EM_2$

Bottom staff (Bass Clef):  $F^+ \quad A^+ \quad C^{\#} \quad | \quad FM^7 \quad FM^{+6} \quad FM_3^6 \quad FM_3^4 \quad FM_2$

Enharmonic

Bass line chords:  $Fx^7$ ,  $Fx^5$ ,  $Fx^4$ ,  $Fx_2$ ,  $Fm^7$ ,  $Fm^{+6}$ ,  $Fm^5$ ,  $Fm^4$ ,  $Fm_2$

Bass line chords:  $F\sharp^7$ ,  $F\sharp^5$ ,  $F\sharp^4$ ,  $F\sharp_2$ ,  $F\sharp^7$ ,  $A\flat\,7$ ,  $B\,7$ ,  $D\,7$

Enharmonic

Bass line chords:  $F\sharp M^7$ ,  $F\sharp M^6$ ,  $F\sharp M^4$ ,  $G\sharp M^7$ ,  $G\sharp M^6$ ,  $G\sharp M^4$ ,  $F\sharp m^7$ ,  $F\sharp m^6$ ,  $F\sharp m^4$

Bass line chords:  $F\sharp^7$ ,  $F\sharp^6$ ,  $F\sharp^4$ ,  $F\sharp^+$ ,  $A\sharp^+$ ,  $D^+$

Enharmonic

Bass line chords:  $F\sharp M^7$ ,  $F\sharp M^{+6}$ ,  $F\sharp M^6$ ,  $F\sharp M^4$ ,  $F\sharp M_2$ ,  $G\sharp M^7$ ,  $G\sharp M^{+6}$ ,  $G\sharp M^4$ ,  $G\sharp M_2$ ,  $G\sharp M_1$

Enharmonic

F#x<sup>7</sup> P#x<sup>8</sup> F#x<sup>4</sup> F#x<sup>2</sup> Gb<sup>x7</sup> Gbx<sup>5</sup> Gbx<sup>4</sup> Gbx<sup>2</sup> F#m<sup>7</sup> F#m<sup>+6</sup> F#m<sup>5</sup> F#m<sup>4</sup> F#m<sup>2</sup>

F#o<sup>7</sup> F#o<sup>6</sup> F#o<sup>4</sup> F#o<sup>2</sup> F#o<sup>7</sup> Ao<sup>7</sup> Co<sup>7</sup> Eo<sup>7</sup>

GM<sup>7</sup> GM<sup>6</sup> GM<sup>4</sup> Gm<sup>7</sup> Gm<sup>6</sup> Gm<sup>4</sup> Go<sup>7</sup> Go<sup>6</sup> Go<sup>4</sup>

G+ B+ D# GM<sup>7</sup> GM<sup>+6</sup> GM<sup>5</sup> GM<sup>4</sup> GM<sup>2</sup>

Gx<sup>7</sup> Gx<sup>8</sup> Gx<sup>4</sup> Gx<sup>2</sup> Gm<sup>7</sup> Gm<sup>+6</sup> Gm<sup>5</sup> Gm<sup>4</sup> Gm<sup>2</sup>

Measures 1-8 (B-flat major, 2/4 time):

Top staff: G<sub>b</sub><sup>7</sup>, G<sub>b</sub><sup>6</sup>, G<sub>b</sub><sup>4</sup>, G<sub>b</sub><sup>2</sup>, G<sub>b</sub><sup>7</sup>, B<sub>b</sub><sup>7</sup>, D<sub>b</sub><sup>7</sup>, E<sub>b</sub><sup>7</sup>

Bottom staff: A<sub>b</sub>M<sup>T</sup>, A<sub>b</sub>M<sup>6</sup>, A<sub>b</sub>M<sup>9</sup>, A<sub>b</sub>m<sup>T</sup>, A<sub>b</sub>m<sup>6</sup>, A<sub>b</sub>m<sup>9</sup>, G<sub>#</sub>m<sup>T</sup>, G<sub>#</sub>m<sup>6</sup>, G<sub>#</sub>m<sup>9</sup>

Enharmonic bracket covers measures 9-16.

Top staff: G<sub>b</sub><sup>7</sup>, G<sub>b</sub><sup>6</sup>, G<sub>b</sub><sup>4</sup>, G<sub>b</sub><sup>2</sup>, G<sub>b</sub><sup>7</sup>, G<sub>b</sub><sup>6</sup>, G<sub>b</sub><sup>4</sup>, G<sub>b</sub><sup>2</sup>, G<sub>b</sub><sup>7</sup>, G<sub>b</sub><sup>6</sup>, G<sub>b</sub><sup>4</sup>, G<sub>b</sub><sup>2</sup>, G<sub>b</sub><sup>7</sup>, G<sub>b</sub><sup>6</sup>, G<sub>b</sub><sup>4</sup>, G<sub>b</sub><sup>2</sup>

Bottom staff: A<sub>b</sub>M<sup>T</sup>, A<sub>b</sub>M<sup>6</sup>, A<sub>b</sub>M<sup>9</sup>, A<sub>b</sub>m<sup>T</sup>, A<sub>b</sub>m<sup>6</sup>, A<sub>b</sub>m<sup>9</sup>, G<sub>#</sub>m<sup>T</sup>, G<sub>#</sub>m<sup>6</sup>, G<sub>#</sub>m<sup>9</sup>

Measures 17-24 (G major, 2/4 time):

Top staff: G<sub>#</sub><sup>7</sup>, G<sub>#</sub><sup>6</sup>, G<sub>#</sub><sup>4</sup>, G<sub>#</sub><sup>2</sup>, G<sub>#</sub><sup>7</sup>, G<sub>#</sub><sup>6</sup>, G<sub>#</sub><sup>4</sup>, G<sub>#</sub><sup>2</sup>, G<sub>#</sub><sup>7</sup>, G<sub>#</sub><sup>6</sup>, G<sub>#</sub><sup>4</sup>, G<sub>#</sub><sup>2</sup>, G<sub>#</sub><sup>7</sup>, G<sub>#</sub><sup>6</sup>, G<sub>#</sub><sup>4</sup>, G<sub>#</sub><sup>2</sup>

Bottom staff: G<sub>#</sub><sup>T</sup>, G<sub>#</sub><sup>6</sup>, G<sub>#</sub><sup>9</sup>, C+, E+, A<sub>b</sub>M<sup>7</sup>, A<sub>b</sub>M<sup>+6</sup>, A<sub>b</sub>M<sup>6</sup>, A<sub>b</sub>M<sup>4</sup>, A<sub>b</sub>M<sup>2</sup>

Enharmonic bracket covers measures 25-32.

Measures 25-32 (A-flat major, 2/4 time):

Top staff: A<sub>b</sub>x<sup>7</sup>, A<sub>b</sub>x<sup>6</sup>, A<sub>b</sub>x<sup>4</sup>, A<sub>b</sub>x<sup>2</sup>, A<sub>b</sub>m<sup>7</sup>, A<sub>b</sub>m<sup>+6</sup>, A<sub>b</sub>m<sup>6</sup>, A<sub>b</sub>m<sup>4</sup>, A<sub>b</sub>m<sup>2</sup>, G<sub>#</sub>m<sup>7</sup>, G<sub>#</sub>m<sup>+6</sup>, G<sub>#</sub>m<sup>6</sup>, G<sub>#</sub>m<sup>4</sup>, G<sub>#</sub>m<sup>2</sup>

Bottom staff: A<sub>b</sub>M<sup>T</sup>, A<sub>b</sub>M<sup>6</sup>, A<sub>b</sub>M<sup>9</sup>, A<sub>b</sub>m<sup>T</sup>, A<sub>b</sub>m<sup>6</sup>, A<sub>b</sub>m<sup>9</sup>, G<sub>#</sub>m<sup>T</sup>, G<sub>#</sub>m<sup>6</sup>, G<sub>#</sub>m<sup>9</sup>

Measures 33-40 (G major, 2/4 time):

Top staff: G<sub>#</sub><sup>7</sup>, G<sub>#</sub><sup>6</sup>, G<sub>#</sub><sup>4</sup>, G<sub>#</sub><sup>2</sup>, G<sub>#</sub><sup>7</sup>, G<sub>#</sub><sup>6</sup>, G<sub>#</sub><sup>4</sup>, G<sub>#</sub><sup>2</sup>, G<sub>#</sub><sup>7</sup>, G<sub>#</sub><sup>6</sup>, G<sub>#</sub><sup>4</sup>, G<sub>#</sub><sup>2</sup>, G<sub>#</sub><sup>7</sup>, G<sub>#</sub><sup>6</sup>, G<sub>#</sub><sup>4</sup>, G<sub>#</sub><sup>2</sup>

Bottom staff: G<sub>#</sub><sup>T</sup>, G<sub>#</sub><sup>6</sup>, G<sub>#</sub><sup>9</sup>, C+, E+, G<sub>#</sub><sup>7</sup>, B<sub>#</sub><sup>7</sup>, D<sub>#</sub><sup>7</sup>, F<sub>#</sub><sup>7</sup>

Music staff 1:

Treble clef, Bass clef

AM<sup>9</sup> AM<sup>6</sup> AM<sup>4</sup> | Am<sup>9</sup> Am<sup>6</sup> Am<sup>4</sup> | Ao<sup>9</sup> Ao<sup>6</sup> Ao<sup>4</sup>

Music staff 2:

Treble clef, Bass clef

A+ C♯+ F+ | AM<sup>7</sup> AM<sup>9+</sup> AM<sup>6</sup> AM<sup>4+</sup> AM<sub>2</sub> | Ax<sup>7</sup> Ax<sup>9</sup> Ax<sup>4</sup> Ax<sub>2</sub>

Music staff 3:

Treble clef, Bass clef

Am<sup>7</sup> Am<sup>9+</sup> Am<sup>6</sup> Am<sup>4+</sup> Am<sub>2</sub> | A∅<sup>7</sup> A∅<sup>9</sup> A∅<sup>4</sup> A∅<sub>2</sub> | Ao<sup>7</sup> Co<sup>7</sup> Eb<sup>9</sup> Gb<sup>9</sup> F#<sup>9</sup>

Enharmonic

Music staff 4:

Treble clef, Bass clef

B♭M<sup>9</sup> B♭M<sup>6</sup> B♭M<sup>4</sup> | B♭m<sup>9</sup> B♭m<sup>6</sup> B♭m<sup>4</sup> | B♭o<sup>9</sup> B♭o<sup>6</sup> B♭o<sup>4</sup> | A♯o<sup>9</sup> A♯o<sup>6</sup> A♯o<sup>4</sup>

Enharmonic

Music staff 5:

Treble clef, Bass clef

B♭+ D+ F♯+ | B♭M<sup>9</sup> B♭M<sup>6</sup> B♭M<sup>4</sup> | B♭M<sup>9</sup> B♭M<sup>6</sup> B♭M<sup>4</sup>

Enharmonic

B<sub>b</sub>7 B<sub>b</sub>x<sub>5</sub> B<sub>b</sub>x<sub>4</sub> B<sub>b</sub>x<sub>2</sub> | B<sub>b</sub>m<sup>7</sup> A<sup>#</sup>m<sup>7</sup> B<sub>b</sub>m<sup>+6</sup> B<sub>b</sub>m<sub>5</sub> B<sub>b</sub>m<sub>3</sub> B<sub>b</sub>m<sub>2</sub>

Enharmonic Enharmonic

A<sup>#</sup>o<sup>7</sup> A<sup>#</sup>o<sup>6</sup> A<sup>#</sup>o<sup>4</sup> A<sup>#</sup>o<sup>2</sup> | Bb<sub>o</sub><sup>7</sup> A<sup>#</sup>o<sup>7</sup> D<sub>b</sub><sub>o</sub><sup>7</sup> C<sup>#</sup>o<sup>7</sup> E<sub>o</sub><sup>7</sup> G<sub>o</sub><sup>7</sup>

B<sub>M</sub><sup>T</sup> B<sub>M</sub><sup>6</sup> B<sub>M</sub><sub>4</sub> | B<sub>m</sub><sup>T</sup> B<sub>m</sub><sup>6</sup> B<sub>m</sub><sub>4</sub> | B<sub>O</sub><sup>T</sup> B<sub>O</sub><sup>6</sup> B<sub>O</sub><sub>4</sub>

B+ D# | B<sub>M</sub><sup>7</sup> B<sub>M</sub><sup>+6</sup> B<sub>M</sub><sub>5</sub> B<sub>M</sub><sub>4</sub> B<sub>M</sub><sub>2</sub> | B<sub>x</sub><sup>7</sup> B<sub>x</sub><sub>5</sub> B<sub>x</sub><sub>4</sub> B<sub>x</sub><sub>2</sub>

B<sub>m</sub><sup>7</sup> B<sub>m</sub><sup>+6</sup> B<sub>m</sub><sub>5</sub> B<sub>m</sub><sub>4</sub> B<sub>m</sub><sub>2</sub> | B<sub>b</sub><sup>7</sup> B<sub>b</sub><sub>5</sub> B<sub>b</sub><sub>4</sub> B<sub>b</sub><sub>2</sub> | B<sub>o</sub><sup>7</sup> D<sub>o</sub><sup>7</sup> F<sub>o</sub><sup>7</sup> A<sub>b</sub><sup>7</sup>

Note: From this point onward the use of the Arabic numeral 7 will no longer be necessary. All chords are seventh chords unless indicated otherwise.

# *Chapter 9*

## **Jazz Rhythm**

Improvisation in both Western and Eastern music has flourished for centuries; only since 1900 has improvisation in Western classical music declined, coinciding with the rise of jazz improvisation - a unique fusion of African rhythm and European harmony.

These unique qualities of jazz improvisation lie in the following:

1. The African device of accenting unstressed portions of the bar.
2. The specific rhythmic assignments usually employed as follows:

Rhythmic unit = Quarter note (♩)

Harmonic unit = Quarter note (♩)

Half note (♪)

Whole note (●)

Melodic unit = Eighth notes (♪ ♪)        
Eighth note triplets (♪ ♪ ♪)  
Sixteenth notes (♪ ♪ ♪ ♪)        
Sixteenth note triplets (♪ ♪ ♪ ♪ ♪ ♪)

The following historical treatments of the twelve - bar blues will illustrate how each style has employed these three units.

# *Chapter 10*

## **Ragtime/Stride Piano 1900 - 1920**

Rhythmic unit = ♩ (swing bass octaves)

Harmonic unit = ♩ and ♪ (combination of ♩ swing bass and ♪ "walk" bars)

Melodic unit = ♪ and ♪ ♪

The student is encouraged to seek out recordings of the following practitioners of this style:

"Jelly Roll" Morton

James P. Johnson

Willie "The Lion" Smith

"Fats" Waller (early)

Tom Turpin

James Scott

Scott Joplin

Fig. I. Key of B $\flat$

Moderately

Chorus 1

Musical score for Chorus 1 in B-flat major (2/2 time). The key signature has one flat. The score consists of two staves: treble and bass. The treble staff starts with a forte dynamic. The bass staff begins with a bass clef and a B-flat note. The music includes several chords: (B $\flat$ ), Ix2, V1o, II $\flat$ 3<sup>4</sup>, I $6$ , and V $2$ . The bass staff also features various chords including I, I $2$ , Ix2, IVx $\frac{5}{3}$ , \*P.N., IVx, and  $\sharp$ IVo.

Continuation of the musical score. The treble staff shows a sequence of chords: (B $\flat$ ), I $6$ , IVx, I $6$ , bIIIo, V $4$ <sub>3</sub>, and V. The bass staff continues with chords: I $4$ , IVx, I $6$ , bIIIo, V $4$ <sub>3</sub>, and V.

Continuation of the musical score. The treble staff shows a sequence of chords: (B $\flat$ ), V, VI,  $\sharp$ V1o, V $5$ <sup>6</sup>, I, Ix2, VIx, VIx $2$ , IIx $\frac{5}{3}$ , and V. The bass staff continues with chords: I $4$ , IVx, I $6$ , bIIIo, V $4$ <sub>3</sub>, and V.

Continuation of the musical score. The treble staff shows a sequence of chords: (B $\flat$ ), V, VI,  $\sharp$ V1o, V $5$ <sup>6</sup>, I, Ix2, VIx, VIx $2$ , IIx $\frac{5}{3}$ , and V. The bass staff continues with chords: I $4$ , IVx, I $6$ , bIIIo, V $4$ <sub>3</sub>, and V.

\* P.N. = passing note

Chorus 2

Musical score for Chorus 2, first system. The score consists of two staves: treble and bass. The key signature is B-flat major (two flats). The music is in common time. The notes are primarily eighth and sixteenth notes. The harmonic progression is indicated by Roman numerals below the bass staff:

(B $\flat$ ) I I $_2$  Ix $_2$  II $_3^4$  II $_{\flat 3}^4$  I $_4^6$  VI $\text{o}$  V $_5^6$

Musical score for Chorus 2, second system. The score consists of two staves: treble and bass. The key signature is B-flat major (two flats). The music is in common time. The notes are primarily eighth and sixteenth notes. The harmonic progression is indicated by Roman numerals below the bass staff:

(B $\flat$ ) I I $_2$  Ix $_2$  I $_3^4$  IV $x_5^6$  P.N. IVx  $\sharp$  IV $\text{o}$

Musical score for Chorus 2, third system. The score consists of two staves: treble and bass. The key signature is B-flat major (two flats). The music is in common time. The notes are primarily eighth and sixteenth notes. The harmonic progression is indicated by Roman numerals below the bass staff:

(B $\flat$ ) I $_4^6$  V $_2$  VI $_3^4$   $\flat$  III $\text{o}$  II P.N. IV  $\sharp$  IV $\text{o}$

Musical score for Chorus 2, fourth system. The score consists of two staves: treble and bass. The key signature is B-flat major (two flats). The music is in common time. The notes are primarily eighth and sixteenth notes. The harmonic progression is indicated by Roman numerals below the bass staff:

(B $\flat$ ) V VI  $\sharp$  VI $\text{o}$  V $_5^6$  I I $^6$  IV  $\sharp$  IV $\text{o}$  V I

## **Swing Piano 1920 - 1940**

Rhythmic unit =  (swing bass tenths)

Harmonic unit =  and  (combination of  swing bass and  "walk" bars)

Melodic unit = , ,  and 

The student is encouraged to seek out recordings of the following stylists of this period:

"Fats" Waller (middle, late periods)

Earl Hines

Art Tatum

Teddy Wilson

### **Tenths**

Tenths break down into three spans:

Span 1	Span 2	Span 3
C - E $\flat$	C - E	D $\flat$ - F
C $\sharp$ - E	D - F	D - F $\sharp$
F - A $\flat$	D $\sharp$ - F $\sharp$	E $\flat$ - G
F $\sharp$ - A	E - G	E - G $\sharp$
G - B $\flat$	F - A	F $\sharp$ - A $\sharp$
G $\sharp$ - B	G - B	A $\flat$ - C
	A - C	A - C $\sharp$
	B $\flat$ - D $\flat$	B $\flat$ - D
	B - D	B - D $\sharp$

Spans 1 and 2 are within the normal hand span of the average pianist; span 3 is not and will be avoided in this text.

Fig. 1 illustrates swing piano: the first chorus is in the general style of Teddy Wilson, the second is more reminiscent of Art Tatum.

Fig. 1. Key of C

Chorus 1

The musical score consists of two staves of swing piano music in 2/4 time, Key of C. The top staff shows a treble clef and the bottom staff shows a bass clef. The music is divided into measures by vertical bar lines. The piano part includes various chords and rhythmic patterns. Below each staff, Roman numerals indicate harmonic progressions. The first staff starts with a forte dynamic (mf) and includes measures labeled (C), VI, bVI, Ix<sup>4</sup>, IVx, #IVo, Ix<sup>4</sup>, bVo, and IVm. The second staff includes measures labeled (C), I<sup>6</sup>, V<sup>4</sup><sub>3</sub>, Ix, IVx, IVx<sup>4</sup><sub>3</sub>, IVx, and #IVo. The third staff continues with measures labeled (C), Ix<sup>4</sup><sub>3</sub>, bVo, bVIIx<sup>4</sup><sub>3</sub>, I<sup>6</sup>, P.N., #Io, II, I<sup>6</sup>, and IV. The fourth staff concludes with measures labeled (C), V, VI, #Vlo, V<sup>6</sup><sub>5</sub>, I, bVIIx<sup>4</sup><sub>3</sub>, VIx<sup>4</sup><sub>3</sub>, IIx<sup>4</sup><sub>3</sub>, and V.

## Chorus 2

Chorus 2

(C) Ix                      Io                      IIø2                      I                      V/I

Musical score for piano, measures 9-15. The top staff shows a melodic line with sixteenth-note patterns and grace notes. The bottom staff shows harmonic progression. Measure 9: (C) Ix. Measure 10: IVx. Measure 11: V. Measure 12: Ix. Measure 13: IVx. Measure 14: #IVo.

(C) Ix<sup>4</sup><sub>3</sub> bVIIx<sup>4</sup><sub>3</sub> VIx<sup>4</sup><sub>3</sub> V<sup>4</sup><sub>3</sub>      #I  
II    VIx<sup>4</sup><sub>3</sub>    II<sup>6</sup>    #IV<sup>0</sup>

# Chapter 12

## Bop Piano 1940 - 1955

Rhythmic unit =  (foot beat)

Harmonic unit =  and  (left hand "shells")

Melodic unit = ,  and 

The important pianists of the early revolutionary period of bop were:

Earl "Bud" Powell

Thelonious Monk

Powell in particular forged a style which would accommodate the new demands of bop:

avoidance of swing bass  
left hand shells (chord fragments)  
right hand "horn line"

In the later period of bop the major influential pianists were:

Horace Silver

Hampton Hawes

## Shells

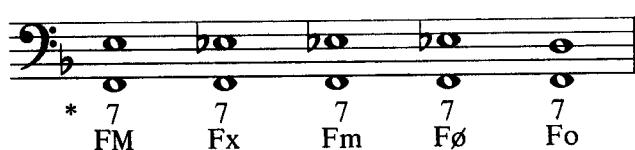
The use of shells are illustrated in Fig 1; they usually employ the root and the 7th or the root and the 3rd.

The fingerings usually employed are as follows:

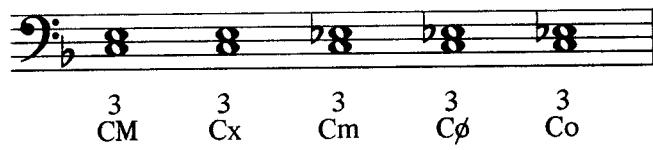
Root and 7th = 5th finger and thumb.

Root and 3rd = 2nd finger and thumb.

Fig. 1 Key of F



\* 7      7      7      7      7  
FM      Fx      Fm      Fø      Fo



3      3      3      3      3  
CM      Cx      Cm      Cø      Co

\*Note: The numerals above the chord names indicate the interval point of the left hand shell.

Since a shell can only imply the quality of a chord, the following table will be helpful in determining the function of each shell in Fig. 1.

Shell	=	Implied Quality
M 7th	=	M 7 chord
m 7th	=	{ x 7 chord m 7 chord ø 7 chord
o 7th	=	o 7 chord
M 3rd	=	{ M 7 chord x 7 chord
m 3rd	=	{ m 7 chord ø 7 chord o 7 chord



Fig. 2 illustrates a drill which should be practiced around the circle of fifths from the twelve major thirds. The fingering is always 2 - 1 for 3rds and 5 - 1 for 7ths.

Fig. 2  
Key of C

Left Hand Drill



Key of D $\flat$



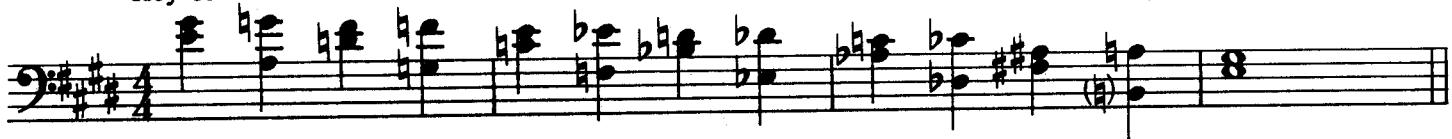
Key of D



Key of E $\flat$



Key of E



Key of F



Key of G $\flat$



Key of G



Key of A $\flat$



Key of A



Key of B $\flat$



Key of B



Fig. 3 is a treatment of the twelve - bar blues in the characteristic style of bop piano.

Fig. 3 Key of B $\flat$

Lively

Introduction

4

*mf*

(B $\flat$ ) III  $\overset{7}{\text{bIII}}$  II

4

Chorus 1

II  $\overset{7}{\text{bIIx}}$  I  $\overset{7}{\text{IV}}$  VII  $\overset{7}{\text{IIIx}}$  VI  $\overset{7}{\text{III}}$

Vm  $\overset{3}{\text{Ix}}$  IVx  $\overset{7}{\text{IVm}}$   $\overset{3}{\text{bVIIx}}$

III  $\overset{3}{\text{VIx}}$   $\overset{7}{\text{bIII}}$   $\overset{3}{\text{bVIx}}$  II

(B $\flat$ ) II      7  
 V      7  
 III      7  
 VIx      3  
 II      7  
 V      3

**Chorus 2**

(B $\flat$ ) I      7  
 IV      3  
 VII      7  
 IIIx      3  
 VI      7  
 IIx      3  
 Vm      7  
 Ix      3

3      3

(B $\flat$ ) IVx      7  
 #IVo      7  
 \*<sup>6</sup>  
 VI<sub>2</sub>      7  
 IVx      7  
 III      7  
 bIII      7

3  
 3

(B $\flat$ ) II      7  
 bIIx      7  
 I      7  
 bVIM      7

7  
 V $\flat$ 5  
 Ix  
 Ix

\* All inversion shells employ the outside voices of the particular inversion forming a point of six.

# *Chapter 13*

## **Early Contemporary Jazz Piano 1955 - 1965**

Rhythmic unit =  (foot beat)

Harmonic unit =  and  (left hand voicings)

Melodic unit = , ,  and 

In the middle fifties stylistic changes in jazz piano began to be heard, particularly in the Miles Davis rhythm sections of the period. The important pianists in this early movement were:

“Red” Garland  
Wynton Kelly

The basic problem of early contemporary jazz piano was to escape from the severe three voice style of bop piano into a more harmonic approach. This was achieved through the use of left hand voicings which will be thoroughly studied further on in this book.

Fig. 1 illustrates this style applied to the twelve - bar blues.

Fig. 1 Key of B $\flat$

Medium

Chorus 1

Musical score for Chorus 1 in B-flat major (B $\flat$ ). The key signature has one flat. The score consists of two staves: treble and bass. The treble staff starts with a quarter note followed by eighth notes. The bass staff starts with a half note. The music is in common time (4/4). The first measure is labeled (B $\flat$ ) and Ix. The second measure is labeled bIIx. The third measure is labeled Ix. The bass staff has a dynamic marking 'mf'.

Continuation of the musical score. The treble staff shows a series of eighth and sixteenth note patterns. The bass staff shows changes in harmonic function: (B $\flat$ ), bIIx, Ix, IVx, #IVx, and IVx. The bass staff uses various bass clef and key signature markings to indicate the changing chords.

Continuation of the musical score. The treble staff shows a series of eighth and sixteenth note patterns. The bass staff shows changes in harmonic function: (B $\flat$ ), Ix, VIIx, bVIIx, VIx, and IIx. The bass staff uses various bass clef and key signature markings to indicate the changing chords.

Continuation of the musical score. The treble staff shows a series of eighth and sixteenth note patterns. The bass staff shows changes in harmonic function: (B $\flat$ ), bIIx, Ix, bIIIx, IIx, and bIIx. The bass staff uses various bass clef and key signature markings to indicate the changing chords.

## Chorus 2

(B $\flat$ ) Ix                          IVx                              Ix                      bIIx

(B $\flat$ ) Ix                              IVx

(B $\flat$ ) IVx                      Ix                      VIIx                      bVIIx                      VIx

(B $\flat$ ) IIx                              bIIx

(B $\flat$ ) Ix                              bIIx                      Ix

## **Contemporary Jazz Piano 1965 - Present**

Rhythmic unit =  (foot beat)

Harmonic unit =  and  (left hand voicings / modal fourth fragments)

Melodic unit = , ,  and 

Many of the further developments of contemporary jazz piano continued to occur in the Miles Davis rhythm sections with the appearance of Bill Evans, Herbie Hancock and Chick Corea. An exception was McCoy Tyner who achieved his innovations with John Coltrane.

The student should study carefully the recordings of:

**Bill Evans**  
**Herbie Hancock**  
**Chick Corea**  
**McCoy Tyner**

Fig. 1 illustrates some of the basic devices employed by contemporary pianists as they would appear in the twelve - bar blues.

Fig. 1 Key of C

Brightly

Chorus 1

Musical score for Chorus 1, measures 1-6. The score consists of two staves: treble and bass. The key signature changes every two measures. The vocal line starts with eighth-note patterns and moves to sixteenth-note patterns. The piano accompaniment provides harmonic support with chords.

Measure 1: (C) I

Measure 2: #II M

Measure 3: #IV

Measure 4: #VIM

Measure 5: III M

Measure 6: I

Musical score for Chorus 1, measures 7-12. The vocal line continues with eighth-note and sixteenth-note patterns. The piano accompaniment maintains harmonic stability with sustained chords.

Measure 7: (C) #V

Measure 8: III M

Measure 9: IX

Measure 10: IVx

Measure 11: IVx

Musical score for Chorus 1, measures 13-18. The vocal line becomes more rhythmic, featuring eighth-note patterns. The piano accompaniment uses sustained chords to provide harmonic support.

Measure 13: (C) IX

Measure 14: VIIx

Measure 15: bVIIx

Measure 16: VIx

Measure 17: IIx

Musical score for Chorus 1, measures 19-24. The vocal line continues with eighth-note patterns. The piano accompaniment uses sustained chords to provide harmonic support.

Measure 19: (C) bIIx

Measure 20: IX

Measure 21: bIIIx

Measure 22: IIx

Measure 23: bIIx

## Chorus 2

Chorus 2

(C) Ix      bIIIx      bVx      b IIIx      bVx      b IIIx

(C) Ix      IVx

(C) IVx      Ix      b IIIx

(C) IIx      bIIx      Ix

(C) Ix      Ix      Ix

The student may notice the absence of several important pianists in the preceding summary, in particular Oscar Peterson and George Shearing. These omissions demand an explanation.

Oscar Peterson has established a level of virtuosity in jazz piano reminiscent of the great Art Tatum. Peterson's influences, however, are more modern - namely Bud Powell, Charlie Parker, George Shearing and Nat Cole. There are no major innovations in Peterson's playing as regards devices; his contribution lies in his brilliant consolidation of elements of the art from the time he first appeared on the jazz horizon in 1950.

George Shearing is a different matter. He is basically a Powell influenced pianist but is credited with developing and popularizing the block chord system previously associated with pianist Milt Buckner of the Lionel Hampton Band. This block chord system has become part of the jazz vernacular and is employed by many contemporary pianists in varying ways.

Two other pianists who left no heritage of devices employed by professional musicians but who brought jazz piano to the forefront of the American music public are Dave Brubeck and Erroll Garner. Both of these men were able to open new markets which had previously been largely inaccessible to jazz musicians. Brubeck, in colleges throughout the world; and Garner, through television and extensive recordings, brought a valuable exposure to jazz.

## The Improvised Line

Jazz improvisation involves abandoning the melody and creating an improvised line based on the resources of the chords.

These resources consist of the following:

1. Arpeggios (broken chords)
2. Modes
3. Non - modal tones (blue notes)

### Arpeggios

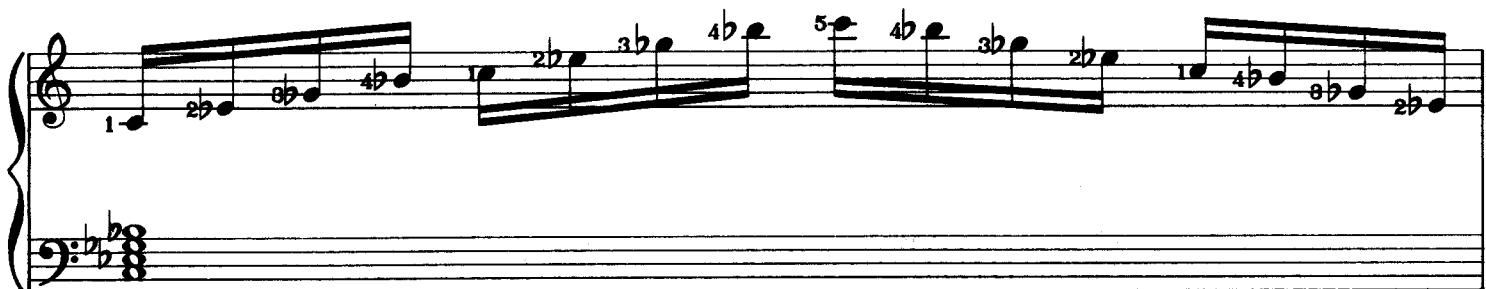
Fig. 1 Key of C

CM

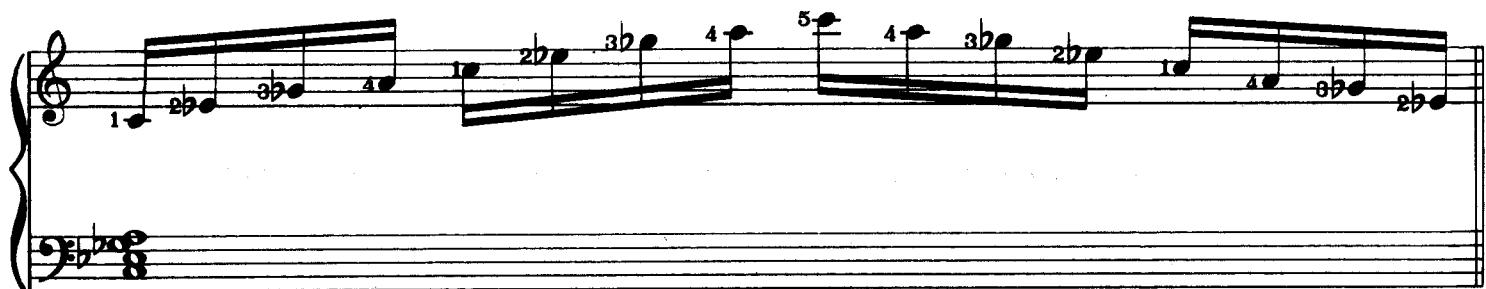
Cx



Cm



C<sub>6</sub>



Co

The following table illustrates the right hand arpeggio fingerings for the Sixty chords. (See Chapter Three)  
Inversion fingerings are generally derived from root position fingerings.

Some fingerings employ only one fingering combination for all five qualities (M, x, m,  $\phi$ , o); others require various fingerings as the intervals change.

The traditional rule concerning all fingering has been to avoid the thumb and, to some extent, the fifth finger on black notes in order not to disturb the classic piano hand position.

C	M, x, m, $\emptyset$ , o	123412345 - reverse
D	M, x, m, $\emptyset$ , o	123412345 - reverse
E	M, x, m, $\emptyset$ , o	123412345 - reverse
F	M, x, m, $\emptyset$ , o	123412345 - reverse
G	M, x, m, $\emptyset$ , o	123412345 - reverse
A	M, x, m, $\emptyset$ , o	123412345 - reverse
B	M, x, m, $\emptyset$ , o	123412345 - reverse
D $\flat$	M, x, m, $\emptyset$ , o	212341234 - reverse
A $\flat$	M, x, m, $\emptyset$ , o	212341234 - reverse
B $\flat$	M, x,	212341234 - reverse
(A $\sharp$ )		
B $\flat$	m, $\emptyset$ , o	231234123 - reverse
(A $\sharp$ )		
G $\flat$	M, x,	234123412 - reverse
(F $\sharp$ )		
G $\flat$	m, $\emptyset$ , o	212341234 - reverse
(F $\sharp$ )		
E $\flat$	M, x,	212341234 - reverse
E $\flat$	m,	123412345 - reverse
E $\flat$	$\emptyset$ , o	231234123 - reverse
(D $\sharp$ )		

Fig. 2 is an arpeggiated improvised line on "Here's That Rainy Day". Note the key changes.

The improvised line employs the ,  and  melodic units.

The left hand shells create a basic bop treatment in order to lend a sense of style to the study.

The student is advised to seriously study the arpeggio table appearing above for automatic facility.

# Here's That Rainy Day

*words and music by*  
Johnny Burke and James Van Heusen

Fig. 2 Key of G

The musical score consists of four staves of piano sheet music. Below each staff, Roman numerals indicate harmonic progressions. The first staff starts in G major (G) and moves through I, VII<sup>7</sup>x<sup>#5</sup>, (E♭), III<sup>6</sup>2, bII<sup>7</sup>x<sup>b5</sup>, and I. The second staff starts in E♭ minor (E♭) and moves through IV, G, II, III, IV, V<sup>b5</sup>, I, and II. The third staff starts in G major (G) and moves through #II<sup>7</sup>o, III, (B♭), II<sup>x7</sup>, II<sup>#7</sup>, II, V, I, and bV<sup>7</sup>x. The fourth staff starts in B♭ minor (B♭) and moves through IV, IV<sup>6</sup>+6, G, II, II<sup>#7</sup>, II, II, V, bVII<sup>7</sup>x, and VIx.

Measures 61-62: Treble staff: (G)  $b^7$ V<sub>Ix</sub>, Bass staff:  $b^7$ V. Treble staff:  $^7$ V, Bass staff:  $^7$ I. Treble staff:  $^7$ VII $x^{\#}5$ , Bass staff:  $b^7$ I. Treble staff:  $(E\flat)$   $^6$ III<sub>2</sub>, Bass staff:  $b^7$ II $x^b5$ . Treble staff:  $(E\flat)$   $^7$ I, Bass staff:  $b^7$ I.

Measures 63-64: Treble staff:  $(E\flat)$   $^7$ IV, Bass staff:  $(G)$   $^7$ II. Treble staff:  $^7$ III, Bass staff:  $^7$ IV. Treble staff:  $^7$ V, Bass staff:  $^7$ V $b5$ . Treble staff:  $^7$ I, Bass staff:  $^7$ VI.

Measures 64-65: Treble staff:  $(G)$   $^7$ V<sub>m</sub>, Bass staff:  $b^7$ V<sub>x</sub>. Treble staff:  $^7$ IV, Bass staff:  $b^7$ V<sub>x</sub>. Treble staff:  $^6$ VII<sub>3</sub> $^4$ , Bass staff:  $^7$ IV<sub>o</sub>.

Measures 66-67: Treble staff:  $(G)$   $^7$ III, Bass staff:  $b^7$ III<sub>o</sub>. Treble staff:  $^7$ II, Bass staff:  $^7$ II. Treble staff:  $^7$ III, Bass staff:  $^7$ III.

Measures 68-70: Treble staff:  $(G)$   $^7$ IV, Bass staff:  $^7$ V $b5$ . Treble staff:  $^7$ V $b5$ , Bass staff:  $^7$ V $b5$ . Treble staff:  $^7$ I $b5$ , Bass staff:  $^7$ I $b5$ . Treble staff:  $^6$ I $+6$ , Bass staff:  $^6$ I $+6$ .

# *Chapter 16*

## **Modes**

**A mode is a displaced scale starting on any tone in the row.**

Thus, the scale of C can be played from:

- I C to C - Ionian Mode
- II D to D - Dorian Mode
- III E to E - Phrygian Mode
- IV F to F - Lydian Mode
- V G to G - Mixolydian Mode
- VI A to A - Aeolian Mode
- VII B to B - Locrian Mode

The terms appearing in the above table are the traditional Greek names applied to the modal displacements.

The basic problem here is to connect the eighty-four modes, (twelve scales, seven displacements) to the Sixty chord system in order to employ the most important device in contemporary jazz improvisation.

# The Eighty-four Modes

(All fingerings follow the original Ionian fingering system)

Key of C

Musical notation for modes I and II in Key of C. The notation is in common time (indicated by '4'). The first measure shows the Ionian mode (C major) with fingerings: 1, 2, 3, 4, 3, 2, 1. The second measure shows the Dorian mode with fingerings: 2, 3, 1, 2, 3, 4, 3. The bass staff shows a bass clef and a common time signature.

Ionian of C                      Dorian of C

I                                  II

Musical notation for modes III and IV in Key of C. The notation is in common time (indicated by '4'). The first measure shows the Phrygian mode with fingerings: 3, 1, 2, 3, 2, 1. The second measure shows the Lydian mode with fingerings: 1, 2, 3, 4, 3, 2. The bass staff shows a bass clef and a common time signature.

Phrygian of C                      Lydian of C

III                                  IV

Musical notation for modes V and VI in Key of C. The notation is in common time (indicated by '4'). The first measure shows the Mixolydian mode with fingerings: 2, 3, 1, 2, 3, 4. The second measure shows the Aeolian mode with fingerings: 3, 2, 1, 2, 3, 4. The bass staff shows a bass clef and a common time signature.

Mixolydian of C                      Aeolian of C

V                                      VI

Musical notation for mode VII in Key of C. The notation is in common time (indicated by '4'). The measure shows the Locrian mode with fingerings: 4, 1, 2, 3, 4, 3, 2, 1. The bass staff shows a bass clef and a common time signature.

Locrian of C

VII

Key of D $\flat$

Musical notation for mode I in Key of D $\flat$ . The notation is in common time (indicated by '4'). The measure shows the Ionian mode (D $\flat$  major) with fingerings: 2, 3, 1, 2, 3, 4, 3. The bass staff shows a bass clef and a common time signature.

Ionian of D $\flat$

I

Dorian of D $\flat$

Phrygian of D $\flat$

II III

Lydian of D $\flat$

Mixolydian of D $\flat$

IV V

Aeolian of D $\flat$

Locrian of D $\flat$

VI VII

Key of D

Ionian of D

Dorian of D

I II

Phrygian of D

Lydian of D

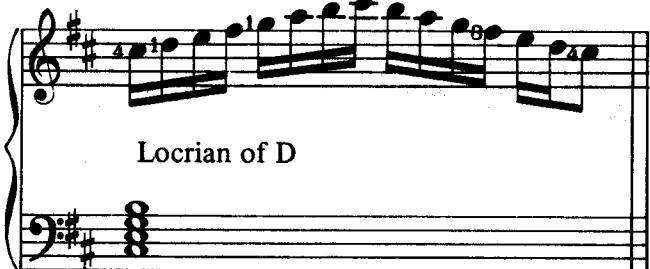
III IV



V

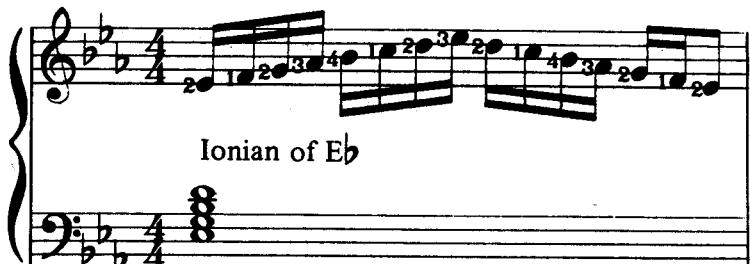
Aeolian of D

VI

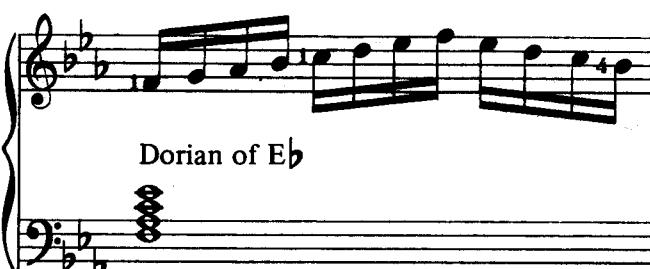


VII

Key of E♭



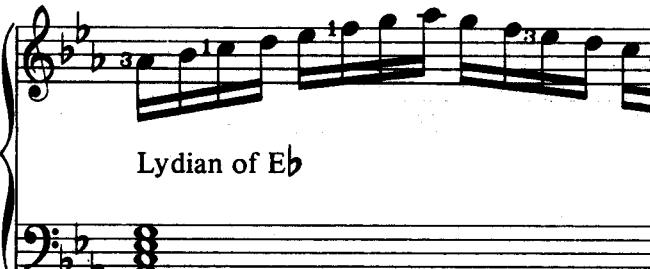
I



II

Phrygian of E♭

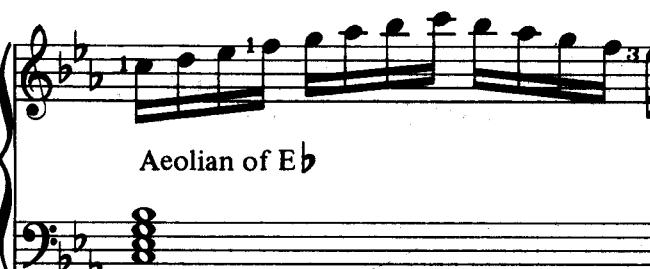
III



IV

Mixolydian of E♭

V



VI

Locrian of E♭

VII

Key of E

Ionian of E      Dorian of E

Phrygian of E      Lydian of E

Mixolydian of E      Aeolian of E

Locrian of E

I      II      III      IV      V      VI      VII

Key of F

Ionian of F

I

Dorian of F      Phrygian of F

II      III

Lydian of F

Mixolydian of F

IV

V

Aeolian of F

Locrian of F

VI

VII

Key of F $\sharp$  (Enharmonic of G $\flat$ )

Ionian of F $\sharp$

Dorian of F $\sharp$

I

II

Phrygian of F $\sharp$

Lydian of F $\sharp$

III

IV

Mixolydian of F $\sharp$

Aeolian of F $\sharp$

V

VI

Locrian of F♯

VII

Key of G♭ (Enharmonic of F♯)

Ionian of G♭

I

Dorian of G♭

II

Phrygian of G♭

III

Lydian of G♭

IV

Mixolydian of G♭

V

Aeolian of G♭

VI

Locrian of G♭

VII

Key of G

Ionian of G

I

Dorian of G

II

Phrygian of G      Lydian of G

The image shows a musical score for two measures. The first measure, labeled 'Mixolydian of G', consists of six eighth notes. The second measure, labeled 'Aeolian of G', also consists of six eighth notes. The music is written in G major (one sharp) and common time. The bass clef is on the bottom staff, and the treble clef is on the top staff. Measures V and VI are indicated below the staves.

The image shows two musical staves. The left staff, labeled "Locrian of G", has a treble clef, a key signature of one sharp (F#), and a time signature of 4/4. It features a series of eighth-note chords: G-A-B-G, C-D-E-C, F-G-A-F, and B-C-D-B. The right staff, labeled "Ionian of A-flat", has a treble clef, a key signature of one flat (A-flat), and a time signature of 4/4. It features a series of eighth-note chords: A-flat-B-C-A-flat, D-E-F-D, G-A-B-G, and C-D-E-C.

The musical score consists of two staves. The top staff is for the treble clef guitar and shows a melodic line with fingerings: 3-1-2, 3-1-2, 3-1-2; 3-1-2, 3-1-2, 3-1-2. The bottom staff is for the bass clef guitar and shows a constant eighth-note bass line. The section is divided into two measures labeled II and III.

The image shows a musical score for piano. The left measure, labeled "IV", is in Lydian mode over a C major chord. The right measure, labeled "V", is in Mixolydian mode over a G major chord. The piano keys are shown with black and white dots, and the musical staff includes a treble clef and a key signature of one flat.

Aeolian of A $\flat$

Locrian of A $\flat$

VI VII

Key of A

Ionian of A

Dorian of A

I II

Phrygian of A

Lydian of A

III IV

Mixolydian of A

Aeolian of A

V VI

Locrian of A

VII

Key of B $\flat$

Ionian of B $\flat$

I

Mixolydian of B $\flat$

Aeolian of B $\flat$

Locrian of B $\flat$

V VI VII

Key of B

Ionian of B      Dorian of B

I      II

Phrygian of B

Lydian of B

III

IV

Mixolydian of B      Aeolian of B      Locrian of B

V      VI      VII

# *Chapter 17*

## **Modal Improvisation (Part 1)**

Until 1940 the basic element employed in jazz improvisation was the arpeggio (broken chord). This was evolved by Louis Armstrong, Coleman Hawkins and a host of other gifted performers. Beginning in the late Thirties with the appearance of Lester Young, Charlie Parker, Fats Navarro and Bud Powell the use of displaced scales (modes) began and has continued to dominate the improvised line to the present day.

Now we have to connect the modal system described in Chapter Sixteen to the seventh chord harmonic system described in Chapter Two.

Fig. 1 illustrates the seventh chord system and the possible modal relationships.

**Fig. 1**

Quality	Intervals	Positions	Modes
Major 7	M P M	I	Ionian
		IV	Lydian
Dominant 7th	M P m	V	Mixolydian
Minor 7th	m P m	II	Dorian
		III	Phrygian
		VI	Aeolian
Half diminished 7th	m o m	VII	Locrian
Diminished 7th	m o o	none	none

### The Major 7th

I - Ionian  
IV - Lydian

The problem with the major chord lies in the fact that I is always I, but IV may be IV or I of a new key. Eventually, the decision as to which of the two modes to choose will be left to the student; but, for an initial drill all majors will be treated as I taking the Ionian mode.

Fig. 2 illustrates the twelve major chords with their accompanying Ionian modes. These modes should be practiced first one octave, then two, both ascending and descending for complete automatic facility.

### The Major Scales

Fig. 2

A musical staff in G clef and common time (4/4). The top half shows a melody in C Major (CM), starting with a quarter note followed by an eighth-note pattern. The bottom half shows a melody in D-flat Major (D<sub>b</sub> M), starting with a half note followed by an eighth-note pattern. Both melodic lines end with a half note.

CM

D<sub>b</sub> M

A musical staff in G clef and common time (4/4). The top half shows a melody in D Major (DM), starting with a quarter note followed by an eighth-note pattern. The bottom half shows a melody in E-flat Major (E<sub>b</sub> M), starting with a half note followed by an eighth-note pattern. Both melodic lines end with a half note.

DM

E<sub>b</sub> M

EM

FM

- (Enharmonic) -

(Continuation)

F<sup>#</sup>M      G<sub>b</sub>M

F#M

GBM

A musical score consisting of two staves. The top staff is in G major (indicated by a treble clef and a single sharp sign) and the bottom staff is in A-flat major (indicated by a bass clef and two flats). The music shows a melodic line starting in G major and moving through a harmonic transition to A-flat major, indicated by a vertical bar line and a key signature change.

GM

AḥM

AM                    B<sup>b</sup>M                    BM

AM

BbM

BM

### The Dominant seventh

There is never any question about the status of the dominant chord since it only appears in the position of V. Fig. 3 illustrates the twelve dominant chords with their accompanying Mixolydian modes. These modes should be practiced first one octave, then two, both ascending and descending for complete automatic facility.

### The Dominant Scales

Fig. 3

Cx(V of F)      D<sub>b</sub>x(V of G<sub>b</sub>)      Dx(V of G)

E<sub>b</sub>x(V of A<sub>b</sub>)      Ex(V of A)      Fx(V of B<sub>b</sub>)

F<sub>#</sub>x(V of B)      Gx(V of C)      A<sub>b</sub>x(V of D<sub>b</sub>)

Ax(V of D)      B<sub>b</sub>x(V of E<sub>b</sub>)      Bx(V of E)

### The Minor 7th.

II - Dorian  
III - Phrygian  
VI - Aeolian

The minor chord is the most difficult to deal with since it appears in three positions (II - III - VI). For an initial drill the position of II (Dorian) will be used since the II position is the most commonly employed. Also the II chord forms an integral part of the basic cadence II - V - I (a basic anchor of all jazz improvisation). More advanced decisions should be left to the individual choice of the student.

Fig. 4 illustrates the twelve minor chords with their accompanying Dorian modes. These modes should be practiced first one octave, then two, both ascending and descending for complete automatic facility.

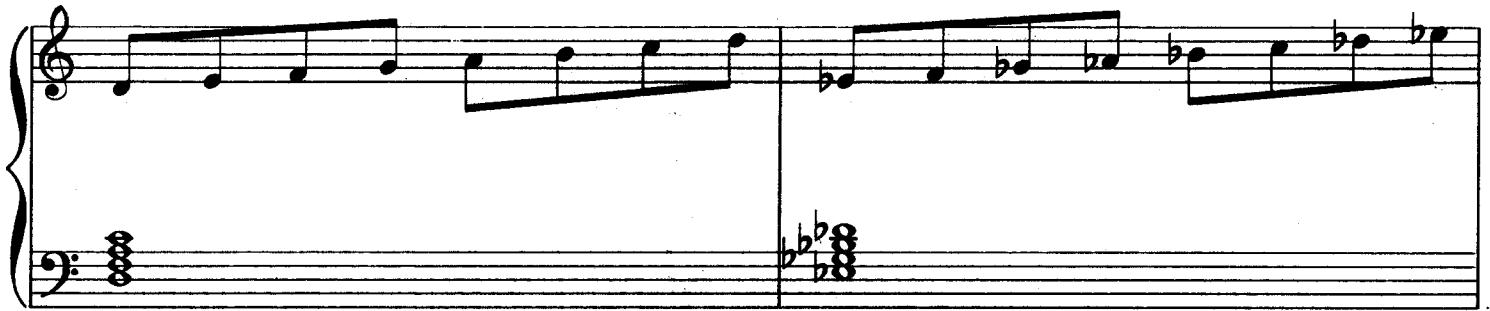
### The Minor Scales

Fig. 4



A musical staff in G clef and common time (4/4). It consists of two measures separated by a vertical bar line. The first measure starts with a quarter note on the second line of the treble clef staff, followed by eighth notes on the first, third, and second lines. The second measure starts with a quarter note on the fourth line of the treble clef staff, followed by eighth notes on the fifth, third, and second lines. Below the staff, the label "Cm(II of Bb)" is written.

A vertical bar line separates the first measure from the second. The second measure starts with a quarter note on the fourth line of the treble clef staff, followed by eighth notes on the fifth, third, and second lines. Below the staff, the label "C#m(II of B)" is written.



A musical staff in G clef and common time (4/4). It consists of two measures separated by a vertical bar line. The first measure starts with a quarter note on the second line of the treble clef staff, followed by eighth notes on the first, third, and second lines. The second measure starts with a quarter note on the fourth line of the treble clef staff, followed by eighth notes on the fifth, third, and second lines. Below the staff, the label "Dm(II of C)" is written.

A vertical bar line separates the first measure from the second. The second measure starts with a quarter note on the fourth line of the treble clef staff, followed by eighth notes on the fifth, third, and second lines. Below the staff, the label "Eb#m(II of Db)" is written.

Em (II of D)

Fm (II of E $\flat$ )

F $\sharp$ m (II of E)

Gm (II of F)

Enharmonic

G $\sharp$ m (II of F $\sharp$ )

A $\flat$ m (II of G $\flat$ )

A $\flat$ m (II of G)

B $\flat$ m (II of A $\flat$ )

Bm (II of A)

### The Half Diminished Chord

Like the dominant chord, the half diminished chord appears in only one position (VII) and therefore always employs the Locrian mode.

Fig. 5 illustrates the twelve half diminished chords with their accompanying Locrian modes. These modes should be practiced first one octave, then two, both ascending and descending for complete automatic facility.

### The Half Diminished Scales

Fig. 5

The musical score consists of three staves of music, each with a treble clef, a bass clef, and a key signature. The first staff shows C $\flat$  (VII of D $\flat$ ) with a key signature of four flats. The second staff shows C $\sharp$  $\flat$  (VII of D) with a key signature of one sharp. The third staff shows D $\flat$  (VII of E $\flat$ ) with a key signature of five flats. The fourth staff shows D $\sharp$  $\flat$  (VII of E) with a key signature of one sharp. The fifth staff shows E $\flat$  (VII of F) with a key signature of four flats. The sixth staff shows E $\sharp$  $\flat$  (VII of F $\sharp$ ) with a key signature of one sharp. The seventh staff shows F $\flat$  (VII of G $\flat$ ) with a key signature of five flats. A bracket above the last three staves is labeled "Enharmonic".

$F\sharp^\phi$  (VII of G)

$G^\phi$  (VII of  $A\flat$ )

$G\sharp^\phi$  (VII of A)

$A^\phi$  (VII of  $B\flat$ )

$A\sharp^\phi$  (VII of B)

$B^\phi$  (VII of C)

### The Diminished Chord

The diminished chord presents a special problem since it does not appear naturally in the seventh chord system with which jazz is essentially concerned. To overcome this problem, jazz musicians have evolved two artificial scales which can be used interchangeably to accommodate the diminished chord. The two scales employ alternating major and minor seconds.

## The Diminished Scales

Fig.6 and 7 illustrate the two alternating scales.

**Fig. 6 Semitone combination: 02121211**

*2 indicates two half steps; 1 indicates one half step.*

**Fig. 7 Semitone combination: 012121212**

Fig. 8 illustrates the twelve 021212121 diminished scales. The numbers indicate suggested fingerings.

Fig. 8

A handwritten musical score page featuring two staves. The top staff is in treble clef, 4/4 time, and consists of two measures. The first measure starts with a bass note (C) followed by a series of eighth-note patterns: 1 2 3 2, 1 2 3 2, 3 1 2 1, 1 2 3 2. The second measure continues with similar patterns: 2 1 2 3 2, 1 2 3 2, 3 1 2 1, 1 2 3 2. The bottom staff is in bass clef, 4/4 time, and shows harmonic changes between measures. Measure 1 starts with a bass note (C) and a harmonic bass note (G). Measure 2 starts with a harmonic bass note (G) and a bass note (C#).

Musical notation for Eo and Fo diminished scales. The notation consists of two staves. The top staff uses a treble clef and has a key signature of one sharp (F#). The bottom staff uses a bass clef and has a key signature of one flat (B-flat). Fingerings are indicated by numbers above the notes: Eo has fingerings 1, 2, #, 1, 2, b, 3, b, 4, 1, 2; Fo has fingerings 1, 2, b, 3, b, 4, b, 1, b, 2, #, 3, 4, 5. The music is divided by a vertical bar.

Eo

Fo

Musical notation for F#o and Go diminished scales. The notation consists of two staves. The top staff uses a treble clef and has a key signature of two sharps (C#). The bottom staff uses a bass clef and has a key signature of one flat (B-flat). Fingerings are indicated by numbers above the notes: F#o has fingerings 1, 2, b, 3, b, 1, 2, 3, b, 2, #; Go has fingerings 1, 2, b, 3, b, 1, 2, b, 3, b, 1, 2, 3. The music is divided by a vertical bar.

F#o

Go

Musical notation for Abo and Ao diminished scales. The notation consists of two staves. The top staff uses a treble clef and has a key signature of one flat (B-flat). The bottom staff uses a bass clef and has a key signature of one flat (B-flat). Fingerings are indicated by numbers above the notes: Abo has fingerings 2, b, 3, b, 1, b, 2, #, 3, 1, 2, b; Ao has fingerings 1, 2, b, 3, b, 1, 2, b, 3, b, 1, 2, 3, #, 4. The music is divided by a vertical bar.

Abo

Ao

Musical notation for Bbo and Bo diminished scales. The notation consists of two staves. The top staff uses a treble clef and has a key signature of two flats (D-flat). The bottom staff uses a bass clef and has a key signature of three flats (A-flat). Fingerings are indicated by numbers above the notes: Bbo has fingerings 2, b, 1, b, 2, b, 3, b, 1, b, 2, 3, b, 2; Bo has fingerings 1, b, 2, #, 1, 2, b, 3, 1, 2, b, 3, b, 4, b. The music is divided by a vertical bar.

Bbo

Bo

Fig. 9 illustrates the twelve 012121212 diminished scales. The numbers indicate suggested fingerings.

Fig. 9

The musical score consists of eight staves, each representing a two-octave diatonic scale. The staves are labeled as follows:

- Co:** Treble clef, Bass clef, Key signature of  $\text{B}^{\flat}\text{E}$ , Measure 1:  $1\text{-}2\text{-}3\text{-}1\text{-}2\text{-}3\text{-}1$ , Measure 2:  $2\text{-}1\text{-}3\text{-}2\text{-}1\text{-}3\text{-}2$ .
- C#o:** Treble clef, Bass clef, Key signature of  $\text{C}^{\sharp}\text{G}$ , Measure 1:  $1\text{-}2\text{-}3\text{-}1\text{-}2\text{-}3\text{-}1$ , Measure 2:  $2\text{-}1\text{-}3\text{-}2\text{-}1\text{-}3\text{-}2$ .
- Do:** Treble clef, Bass clef, Key signature of  $\text{D}\text{F}^{\flat}\text{A}$ , Measure 1:  $1\text{-}2\text{-}3\text{-}1\text{-}2\text{-}3\text{-}1$ , Measure 2:  $2\text{-}1\text{-}3\text{-}2\text{-}1\text{-}3\text{-}2$ .
- Ebo:** Treble clef, Bass clef, Key signature of  $\text{E}^{\flat}\text{G}^{\flat}\text{B}$ , Measure 1:  $1\text{-}2\text{-}3\text{-}1\text{-}2\text{-}3\text{-}1$ , Measure 2:  $2\text{-}1\text{-}3\text{-}2\text{-}1\text{-}3\text{-}2$ .
- Eo:** Treble clef, Bass clef, Key signature of  $\text{E}^{\flat}\text{G}^{\flat}\text{B}$ , Measure 1:  $1\text{-}2\text{-}3\text{-}1\text{-}2\text{-}3\text{-}1$ , Measure 2:  $2\text{-}1\text{-}3\text{-}2\text{-}1\text{-}3\text{-}2$ .
- Fo:** Treble clef, Bass clef, Key signature of  $\text{F}^{\sharp}\text{A}^{\sharp}\text{C}^{\sharp}\text{E}^{\sharp}\text{G}^{\sharp}\text{B}^{\sharp}\text{D}^{\sharp}\text{F}^{\sharp}$ , Measure 1:  $1\text{-}2\text{-}3\text{-}1\text{-}2\text{-}3\text{-}1$ , Measure 2:  $2\text{-}1\text{-}3\text{-}2\text{-}1\text{-}3\text{-}2$ .
- F#o:** Treble clef, Bass clef, Key signature of  $\text{F}^{\sharp}\text{A}^{\sharp}\text{C}^{\sharp}\text{E}^{\sharp}\text{G}^{\sharp}\text{B}^{\sharp}\text{D}^{\sharp}\text{F}^{\sharp}$ , Measure 1:  $1\text{-}2\text{-}3\text{-}1\text{-}2\text{-}3\text{-}1$ , Measure 2:  $2\text{-}1\text{-}3\text{-}2\text{-}1\text{-}3\text{-}2$ .
- Go:** Treble clef, Bass clef, Key signature of  $\text{G}^{\sharp}\text{B}^{\sharp}\text{D}^{\sharp}\text{F}^{\sharp}\text{A}^{\sharp}\text{C}^{\sharp}\text{E}^{\sharp}\text{G}^{\sharp}$ , Measure 1:  $1\text{-}2\text{-}3\text{-}1\text{-}2\text{-}3\text{-}1$ , Measure 2:  $2\text{-}1\text{-}3\text{-}2\text{-}1\text{-}3\text{-}2$ .
- G#o:** Treble clef, Bass clef, Key signature of  $\text{G}^{\sharp}\text{B}^{\sharp}\text{D}^{\sharp}\text{F}^{\sharp}\text{A}^{\sharp}\text{C}^{\sharp}\text{E}^{\sharp}\text{G}^{\sharp}$ , Measure 1:  $1\text{-}2\text{-}3\text{-}1\text{-}2\text{-}3\text{-}1$ , Measure 2:  $2\text{-}1\text{-}3\text{-}2\text{-}1\text{-}3\text{-}2$ .
- Ao:** Treble clef, Bass clef, Key signature of  $\text{A}^{\flat}\text{C}^{\flat}\text{E}^{\flat}\text{G}^{\flat}\text{B}^{\flat}\text{D}^{\flat}\text{F}^{\flat}\text{A}^{\flat}$ , Measure 1:  $1\text{-}2\text{-}3\text{-}1\text{-}2\text{-}3\text{-}1$ , Measure 2:  $2\text{-}1\text{-}3\text{-}2\text{-}1\text{-}3\text{-}2$ .
- Bbo:** Treble clef, Bass clef, Key signature of  $\text{B}^{\flat}\text{E}^{\flat}\text{G}^{\flat}\text{B}^{\flat}\text{D}^{\flat}\text{F}^{\flat}\text{A}^{\flat}\text{C}^{\flat}$ , Measure 1:  $1\text{-}2\text{-}3\text{-}1\text{-}2\text{-}3\text{-}1$ , Measure 2:  $2\text{-}1\text{-}3\text{-}2\text{-}1\text{-}3\text{-}2$ .
- Bo:** Treble clef, Bass clef, Key signature of  $\text{B}^{\flat}\text{E}^{\flat}\text{G}^{\flat}\text{B}^{\flat}\text{D}^{\flat}\text{F}^{\flat}\text{A}^{\flat}\text{C}^{\flat}$ , Measure 1:  $1\text{-}2\text{-}3\text{-}1\text{-}2\text{-}3\text{-}1$ , Measure 2:  $2\text{-}1\text{-}3\text{-}2\text{-}1\text{-}3\text{-}2$ .

## Modal Improvisation (Part 2)

To complete the modal system we must deal with the three modes (Phrygian, Lydian, Aeolian) that were temporarily put aside in Chapter Seventeen.

The IV chord may be treated as IV or the I of a new key.  
See Fig. 1

Fig. 1

Fig. 1 shows a musical score with two measures. The first measure, labeled "IV", is in Lydian mode (C major), indicated by a treble clef, a key signature of one sharp (F#), and a common time signature (4/4). The second measure, labeled "I", is in Ionian mode (F major), indicated by a bass clef, a key signature of one flat (B-flat), and a common time signature (4/4). Both measures feature a bass line consisting of eighth-note chords.

What determines the status of the IV chord is the preceding harmony. In Fig. 2, the harmony is centered around the I chord so that IV would assume its natural role and take the Lydian mode.

Fig. 2

Fig. 2 shows a musical score with four measures. The measures are labeled I, II, III, and IV from left to right. Measure I is in Ionian mode (F major), indicated by a bass clef, a key signature of one flat (B-flat), and a common time signature (4/4). Measures II, III, and IV are in Lydian mode (C major), indicated by a treble clef, a key signature of one sharp (F#), and a common time signature (4/4). The bass line consists of eighth-note chords.

In Fig. 3, the key center around I has been weakened by the Vm and IX and, as a result, the IV becomes the I of F.

As with all these modal conflicts, the student should make the decision concerning the "status" of the chord.

Fig. 3

A musical score in 4/4 time. The top staff shows a treble clef and the bottom staff shows a bass clef. The score consists of four measures. Measure 1: Chord I (C major). Measure 2: Chord Vm (G major). Measure 3: Chord IX (B major). Measure 4: Chord IV (F major), labeled "Ionian of F". The bass line shows a steady eighth-note pattern. The score is enclosed in a large brace.

The III chord and the VI chord may be the III or VI of the original key or the II of a new key.

In Fig. 4, the strong tonal center establishes III as III and VI as VI.

Fig. 4

A musical score in 4/4 time. The top staff shows a treble clef and the bottom staff shows a bass clef. The score consists of five measures. Measure 1: Chord I (C major). Measure 2: Chord II (D major). Measure 3: Chord V (G major). Measure 4: Chord III (A major), labeled "Phrygian". Measure 5: Chord VI (E major), labeled "Aeolian". The bass line shows a steady eighth-note pattern. The score is enclosed in a large brace.

In Fig. 5, the secondary functions in the case of III (IVm,  $\flat$ VIIx) and VI (VIIIm, IIIx) establish the III as the II of D and the VI as the II of G.

Fig. 5

Dorian of D

I                  IVm                  bVIIx                  III (II of D)

Dorian of G

I                  VIIIm                  IIIx                  VI (II of G)

Fig. 6 illustrates the application of modal improvisation to "Polka Dots and Moonbeams" in the key of F. The III - IV and VI chords have been indicated as to status.

The bass line for Fig. 6 is as follows:

Introduction

(F) I VI / II bVm VIIx // I VI/ IV II VIIm bVIIx/VI II<sup>6</sup><sub>3</sub> /VI<sub>2</sub> IV III bIII/  
(F) II / V VII<sub>3</sub><sup>4</sup>/III VI II V / I VI / II bVm VIIx/  
(F) I VI/ IV II VIIm bVIIx/VI II<sup>6</sup><sub>3</sub> /VI<sub>2</sub> IV III bIII/  
(F) II bIIx / I<sup>+6</sup> / (A) II<sup>6</sup> bIIx/I #Io/ II V /  
(A) III VI / II bIIx / I #Io / II V //  
(F) III VIx /II V / I VI / II / bVm VIIx /  
(F) I VI/ IV II VIIm bVIIx/VI II<sup>6</sup><sub>3</sub> /VI<sub>2</sub> IV III bIII /II bIIx / I //

# Polka Dots and Moonbeams

Fig. 6 Key of F

Introduction  
Slowly

*words and music by*  
Johnny Burke and James Van Heusen

Aeol.

I VI II bVII VIIx

Aeol.

I VI IV II VIIIm bVIIx

Dor.

VI II<sup>4</sup> VI<sub>2</sub> IV III bIII II V VII<sub>3</sub><sup>4</sup>

Aeol. Lyd. Phryg.

Phryg. Aeol.

III VI II V I VI II bVII VIIx

Aeol.

Treble clef, key signature of one flat (B-flat). The music consists of two measures. The first measure is labeled "Aeol." and has bass notes I and VI. The second measure is labeled "Lyd." and has bass notes IV, II, VII<sub>m</sub>, and bVII<sub>x</sub>.

Treble clef, key signature of one flat (B-flat). The music consists of three measures. The first measure has bass note VI. The second measure is labeled "Aeol." and has bass note VI<sub>2</sub>. The third measure is labeled "Lyd." and "Phryg." and has bass notes IV, III, and bIII.

Treble clef, key signature of one flat (B-flat). The music consists of four measures. The first measure has bass note II. The second measure has bass note bII<sub>x</sub>. The third measure has bass note I<sup>+6</sup>. The fourth measure is a continuation of the bass line.

Treble clef, key signature of two sharps (F# and C#). The music consists of four measures. The first measure has bass note I. The second measure has bass note #I<sub>o</sub>. The third measure has bass note II. The fourth measure has bass note V. The fifth measure is labeled "Phryg." and "Aeol." and has bass notes III and VI.

Treble clef, key signature of two sharps (F# and C#). The music consists of four measures. The first measure has bass note II. The second measure has bass note bII<sub>x</sub>. The third measure has bass note I. The fourth measure has bass note #I<sub>o</sub>. The fifth measure has bass note II. The sixth measure has bass note V.

Dor.

III VI x II V

Aeol.

I VI H bVm VIIx

Aeol. Lyd.

I VI IV H VIIm bVIIx

Dor. Aeol. Lyd. Phryg.

VI H<sup>4</sup> VI<sub>2</sub> IV III bIII

H bIIx I I<sup>6</sup>

## The Non-modal Tones

The non - modal tones, often referred to as "blue notes", represent an important element in jazz improvisation since the tension created by these tones can add enormous excitement to a jazz performance.

It is often said that since Charlie Parker, there is no such thing as a "wrong" note, only the performer's ability to make it sound "right". However, the performer must keep a proper balance between the tension of the non - modal tones and the release of the modal tones.

Fig 1. illustrates the non - modal or, in the case of the diminished scale, non - scale tones relating to the five qualities.

Fig. 1

Modal Tones

A musical staff in G clef. The notes are: C, D, E, F, G, A, B, C. Below the staff is the label "C major". An asterisk (\*) is placed under the note F.

Non - modal Tones

C major

A musical staff in G clef. The notes are: C, D, E, F, G, A, B, C. Below the staff is the label "C dominant". An asterisk (\*) is placed under the note F.

C dominant

A musical staff in G clef. The notes are: C, D, E, F, G, A, B, C. Below the staff is the label "C minor (Dorian)".

C minor

A musical staff in G clef. The notes are: C, D, E, F, G, A, B, C. Below the staff is the label "C half diminished".

C half diminished

A musical staff in G clef. The notes are: C, D, E, F, G, A, B, C. Below the staff is the label "C diminished".

C diminished

\* The fourth step of both the major and dominant scales is often considered a tension tone unless the 3rd in the chord is raised to form an octave.

The non-modal tones in Fig. 1 break down into two categories

1. Passing tones
2. Ornamental tones

Passing tones	Ornamental tones
C major: C $\sharp$ D $\sharp$ A $\sharp$	F $\sharp$ = augmented 11th G $\sharp$ (if also raised in chord to form M7 $\sharp$ S)
C dominant: B	C $\sharp$ (D $\flat$ ) = flattened 9th D $\sharp$ = augmented 9th F $\sharp$ = augmented 11th G $\sharp$ (A $\flat$ ) = flattened 13th
C minor: C $\sharp$ E F $\sharp$ G $\sharp$ B	
C half diminished: E G A B	D = 9th
C diminished: C $\sharp$ E G B $\flat$	

The use of ornamental tones in harmony will be thoroughly studied in a succeeding chapter. Fig. 2 illustrates the use of both passing tones and ornamental tones as they apply to the improvised line on "Bye Bye Baby". The following is the bass line for "Bye Bye Baby" in B $\flat$ .

(B $\flat$ ) I   Io/ I    $\sharp$ Io / II   II / II   V /    $\natural$ 7    $\sharp$ 7  
 (B $\flat$ ) I   Io/ I   IV/ VII $m$    VII $m$  / VII $m$    IIIx /    $\natural$ 7    $\sharp$ 7  
 (B $\flat$ ) VI   bVIo / Vm   bV / IV   III   VIx / II   II /    $\natural$ 7    $\sharp$ 7  
 (B $\flat$ ) II   bVIx / V   IVx / III   VIx / II   V /  
 (B $\flat$ ) I   Io / I    $\sharp$ Io / II   II / II   V /    $\natural$ 7    $\sharp$ 7  
 (B $\flat$ ) I   Io / I   IV / VII $m$    VII $m$  / VI $m$    IIIx /    $\natural$ 7    $\sharp$ 7  
 (B $\flat$ ) VI   bVIo / Vm   bV / IV   III / II    $\sharp$ IIo /  
 (B $\flat$ ) III   VIx / II   V / I   / I   / /

# Bye, Bye Baby

Fig. 2

*music by Jule Styne  
words by Leo Robin*

Brightly

The musical score consists of six staves of music for piano and voice. The top staff shows the vocal line with lyrics: "Io", "I", "#Io", "II", and "II". The second staff shows the piano accompaniment with Roman numerals: "(Bb) II", "V", "I", "Io", "I", and "IV". The third staff shows the vocal line with Roman numerals: "(Bb) VIIm", "VIIm", "VIIm", "IIIx", "VI", and "bVIo". The fourth staff shows the piano accompaniment with Roman numerals: "(Bb) Vm", "bV", "III", "VIx", "II", and "II". The fifth staff shows the vocal line with Roman numerals: "(Bb) II", "bVIx", "V", "IVx", "III", and "VIx". The sixth staff shows the piano accompaniment with Roman numerals: "bV", "bV", "(b)V", "bV", "bV", and "bV". Measure numbers 1 through 12 are indicated above the staves.

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3

(B $\flat$ ) II      V      I      Io      I      #Io

3

(B $\flat$ ) II      #7      II      V      I      Io

(B $\flat$ ) I      IV      VIIm      VIIm      VIIm      IIIx

3

(B $\flat$ ) VI      bVIo      Vm      bV      IV      III

(B $\flat$ ) II      #IIo      III      VIx      II      V

I

## Early Contemporary Left Hand Voicings

As was apparent in the transition from swing to bop piano (Chapters eleven and twelve) and again from bop to early contemporary (Chapters twelve and thirteen), revolutionary changes took place in the left hand structures employed in jazz piano.

Early contemporary left hand voicings began with two structures associated with classical piano. The earlier structure (referred to in this text as the **(A)** form) is usually attributed to Chopin and can be found extensively in his piano compositions. The more modern structure (referred to in this text as the **(B)** form) is usually attributed to the French impressionists, especially Maurice Ravel.

The following table describes the basic II-V-I procedure for the **(A)** form employing the Dorian, Mixolydian and Ionian modes.

II - 3572 - Dorian

V - 7236 - Mixolydian

I - 3562 - Ionian

See Fig. 1

### The **(A)** Form

Fig. 1 Key of C

The musical score consists of three staves. The top staff shows left hand voicings for chords II, V, and I. The middle staff shows bass notes for the same chords. The bottom staff shows right hand melody notes. The chords are labeled: (C) II, V, I.

Chord	Left Hand Voicing	Bass Note	Right Hand Melody
II	3572 (Dorian of C)	C	Melody notes: A, G, F, E, D, C
V	7236 (Mixolydian of C)	G	Melody notes: B, A, G, F, E, D
I	3562 (Ionian of C)	C	Melody notes: A, G, F, E, D, C

In the initial drill (Fig. 2), the voicings are played by the right hand in the middle C area; the root (which eventually would be assumed by the bass player in a group) is played by the left hand in the deeper range of the bass clef.

The II chord in each case creates a minor ninth chord; the V chord in each case creates a dominant nine thirteen chord; the I chord in each case creates a major ninth chord with an added sixth.

The **(A)** form will be studied in the keys of C, D $\flat$ , D, E $\flat$ , E and F.

This is to ensure that the register of the voicings is always around middle C.

Fig. 2 Drill  
Key of C

A musical staff in bass clef and common time. It consists of two systems of four measures each. The first measure shows a dominant seventh chord (G-B-D-G) followed by a half note G. The second measure shows a dominant seventh chord (C-E-G-C) followed by a half note C. The third measure shows a dominant seventh chord (F-A-C-F) followed by a half note F. The fourth measure shows a dominant seventh chord (B-D-G-B) followed by a half note B.

(C) II V I

Key of D $\flat$

A musical staff in bass clef and common time. It consists of two systems of four measures each. The first measure shows a dominant seventh chord (A $\flat$ -C $\flat$ -E $\flat$ -A $\flat$ ) followed by a half note A $\flat$ . The second measure shows a dominant seventh chord (D $\flat$ -F $\flat$ -A $\flat$ -D $\flat$ ) followed by a half note D $\flat$ . The third measure shows a dominant seventh chord (G $\flat$ -B $\flat$ -D $\flat$ -G $\flat$ ) followed by a half note G $\flat$ . The fourth measure shows a dominant seventh chord (C $\flat$ -E $\flat$ -G $\flat$ -C $\flat$ ) followed by a half note C $\flat$ .

(D $\flat$ ) II V I

Key of D

A musical staff in bass clef and common time. It consists of two systems of four measures each. The first measure shows a dominant seventh chord (G-B-D-G) followed by a half note G. The second measure shows a dominant seventh chord (C-E-G-C) followed by a half note C. The third measure shows a dominant seventh chord (F-A-C-F) followed by a half note F. The fourth measure shows a dominant seventh chord (B-D-G-B) followed by a half note B.

(D) II V I

Key of E $\flat$

A musical staff in bass clef and common time. It consists of two systems of four measures each. The first measure shows a dominant seventh chord (A $\flat$ -C $\flat$ -E $\flat$ -A $\flat$ ) followed by a half note A $\flat$ . The second measure shows a dominant seventh chord (D $\flat$ -F $\flat$ -A $\flat$ -D $\flat$ ) followed by a half note D $\flat$ . The third measure shows a dominant seventh chord (G $\flat$ -B $\flat$ -D $\flat$ -G $\flat$ ) followed by a half note G $\flat$ . The fourth measure shows a dominant seventh chord (C $\flat$ -E $\flat$ -G $\flat$ -C $\flat$ ) followed by a half note C $\flat$ .

(E $\flat$ ) II V I

Key of E

A musical staff in bass clef and common time. It consists of two systems of four measures each. The first measure shows a dominant seventh chord (G-B-D-G) followed by a half note G. The second measure shows a dominant seventh chord (C-E-G-C) followed by a half note C. The third measure shows a dominant seventh chord (F-A-C-F) followed by a half note F. The fourth measure shows a dominant seventh chord (B-D-G-B) followed by a half note B.

(E) II V I

Key of F

A musical staff in bass clef and common time. It consists of two systems of four measures each. The first measure shows a dominant seventh chord (A-B-C-A) followed by a half note A. The second measure shows a dominant seventh chord (D-F-G-D) followed by a half note D. The third measure shows a dominant seventh chord (G-B-C-G) followed by a half note G. The fourth measure shows a dominant seventh chord (C-E-G-C) followed by a half note C.

(F) II V I

The following table describes the basic II - V - I procedure for the (B) form employing the Dorian, Mixolydian and Ionian modes.

II - 7 2 3 5 - Dorian

V - 3 1 3 7 2 - Mixolydian

I - 6 2 3 5 - Ionian

See Fig. 3

The (B) Form

Fig. 3 Key of G

(G) II                            V                            I

Dorian of G                    Mixolydian of G            Ionian of G

In the initial drill (Fig. 4), the (B) form will be studied in the keys of G, A $\flat$ , A, B $\flat$ , B and F $\sharp$ . This is to ensure that the register of the voicings is always around middle C.

Fig. 4 Drill

Key of G

A musical staff in 2/4 time with a key signature of one sharp. It shows four measures: a G major chord (B, D, G), a C major chord (E, G, C), a D major chord (F#, A, D), and a G major chord (B, D, G). The bass line consists of notes on the E and B strings.

(G) II V I

Key of A♭

A musical staff in 2/4 time with a key signature of one flat. It shows four measures: an A-flat major chord (C, E, A-flat), a B-flat major chord (D, F, B-flat), a D major chord (F#, A, D), and an A-flat major chord (C, E, A-flat). The bass line consists of notes on the E and B strings.

(A♭) II V I

Key of A

A musical staff in 2/4 time with a key signature of two sharps. It shows four measures: an A major chord (C, E, A), a C major chord (E, G, C), a D major chord (F#, A, D), and an A major chord (C, E, A). The bass line consists of notes on the E and B strings.

(A) II V I

Key of B♭

A musical staff in 2/4 time with a key signature of one flat. It shows four measures: a B-flat major chord (D, F, B-flat), a C major chord (E, G, C), a D major chord (F#, A, D), and a B-flat major chord (D, F, B-flat). The bass line consists of notes on the E and B strings.

(B♭) II V I

Key of B

A musical staff in 2/4 time with a key signature of two sharps. It shows four measures: a B major chord (D, F#, B), a C major chord (E, G, C), a D major chord (F#, A, D), and a B major chord (D, F#, B). The bass line consists of notes on the E and B strings.

(B) II V I

Key of F♯

A musical staff in 2/4 time with a key signature of three sharps. It shows four measures: an F-sharp major chord (A, C, F#), a G major chord (B, D, G), a D major chord (F#, A, D), and an F-sharp major chord (A, C, F#). The bass line consists of notes on the E and B strings.

(F♯) II V I

The use of II - V - I is due to its elemental role in jazz improvisation.

*The problem now is to break open the II - V - I capsule in order to accommodate the Sixty Chord demands of jazz*

Therefore:

- All major chords are I
  - All dominant chords are V
  - All minor chords are II
  - All half diminished chords are  $\text{II}^{\flat 5}$
  - All diminished chords are  $\text{II}^{\flat 5}_{\flat 7}$
- See note

Note: In the case of half diminished and diminished chords, the voicings are derived from the chord (minor) with the most similar intervals to  $\emptyset$  and o. (See Fig. 5)

Fig. 5 Key of C

A musical staff in 4/4 time, bass clef, with two staves. The top staff shows three chords: (C) II, IIø (II⁵), and IIø (II⁵₇). The bottom staff shows the corresponding root notes: D, D, and D. The chords are voiced as follows: (C) II has a root position triad; IIø (II⁵) has a root position triad with a flat fifth; IIø (II⁵₇) has a root position triad with a flat fifth and a flat seventh.

If the student attempts to play the (A) form in the (B) form keys or vice versa, it will be noticed immediately that the voicing is too low or too high and removed from the middle C area. To avoid this the following rule is applied:

If the parent key of the chord occurs between C and F (C, D $\flat$ , D, E $\flat$ , E, F), use the (A) form; if the parent key occurs between F $\sharp$  and B (F $\sharp$ , G, A $\flat$ , A, B $\flat$ , B), use the (B) form.

For example, VI in the key of C (a minor chord) becomes the temporary II of G and takes the (B) form (G is a (B) form key). On the other hand, VIx in the key of C (a dominant chord) is the temporary V of D and takes the (A) form (D is an (A) form key). (See Fig. 6)

Fig. 6 Key of C

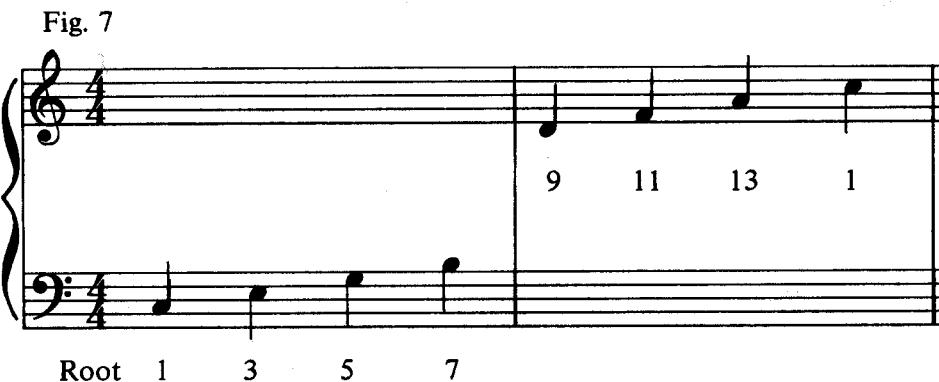
A musical staff in 4/4 time, bass clef, with two staves. The top staff shows five chords: (C), VI (II of G), VIx (V of D), IVm (II of E $\flat$ ), and IVx (V of B $\flat$ ). The bottom staff shows the corresponding root notes: D, D, D, E $\flat$ , and E $\flat$ . The chords are voiced as follows: (C) has a root position triad; VI (II of G) has a root position triad with a sharp fifth; VIx (V of D) has a root position triad with a sharp fifth and a flat seventh; IVm (II of E $\flat$ ) has a root position triad with a flat fifth; IVx (V of B $\flat$ ) has a root position triad with a flat fifth and a flat seventh.

The use of voicings in this manner automatically offers the student the following:

- Proper register (keyboard area)
- Proper voice - leading
- Automatic ornamentation
- Contemporary sound

Author's note; It is absolutely essential that the student memorize an automatic facility with the twelve II - V - I patterns in Figs. 2 and 4.

### The Basic Theory of Intervals



In Fig. 7 the basic theory of all intervals is illustrated.

Intervals are traditionally conceived in alternate steps with odd numbers (1, 3, 5, 7, etc.); however, when building structures, 9 can be identified for convenience as 2, 11 as 4 and 13 as 6; but these tones still retain their original status or function.

The exception to this is the sixth tone which, as the following table will indicate, takes on different values depending upon the quality of the particular chord.

#### The Sixth Tone:

- Major 7th chord = added 6th
- Dominant 7th chord = 13th
- Minor 7th chord = added 6th
- Half diminished 7th chord = non-functioning
- Diminished 7th chord = 7th of the chord

The unique quality of the 13th in the dominant chord results from the combination of the major 3rd and the minor 7th in the dominant chord.

## Contemporary Left Hand Voicings Scales

Figures 1 through 13 illustrate the voicing system through the twelve major scales. Note that the II - V - I parent key system has been used in order to determine the (A) or (B) form status of each voicing.

Fig. 1 Key of C

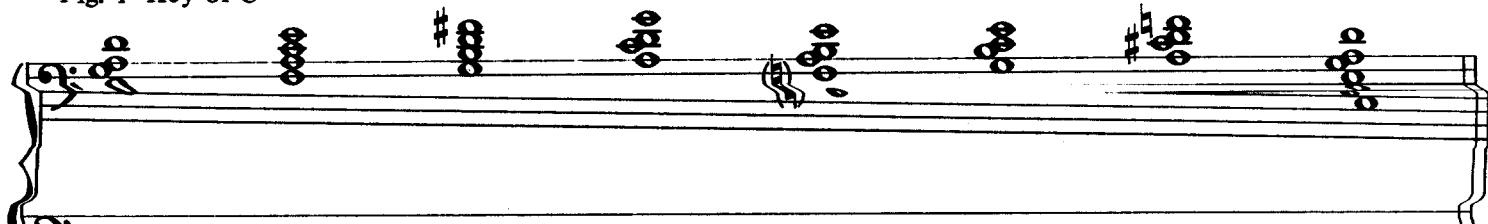


Fig. 2 Key of D $\flat$



Fig. 3 Key of D

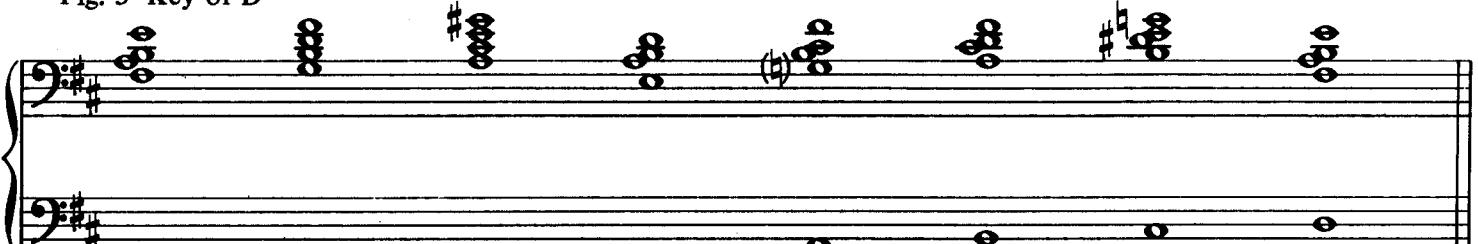


Fig. 4 Key of E $\flat$

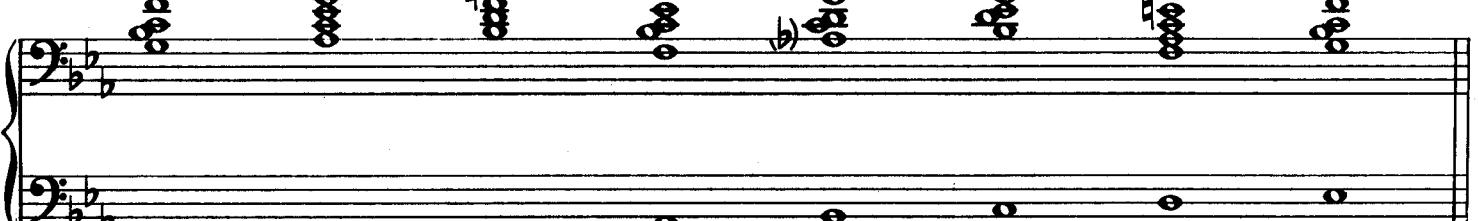


Fig. 5 Key of E

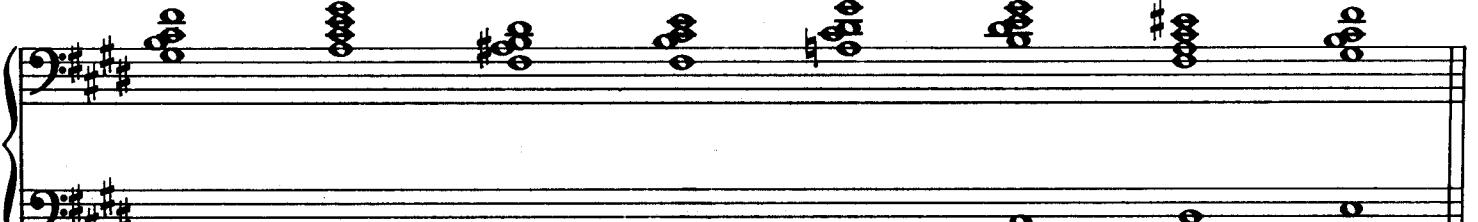


Fig. 6 Key of F

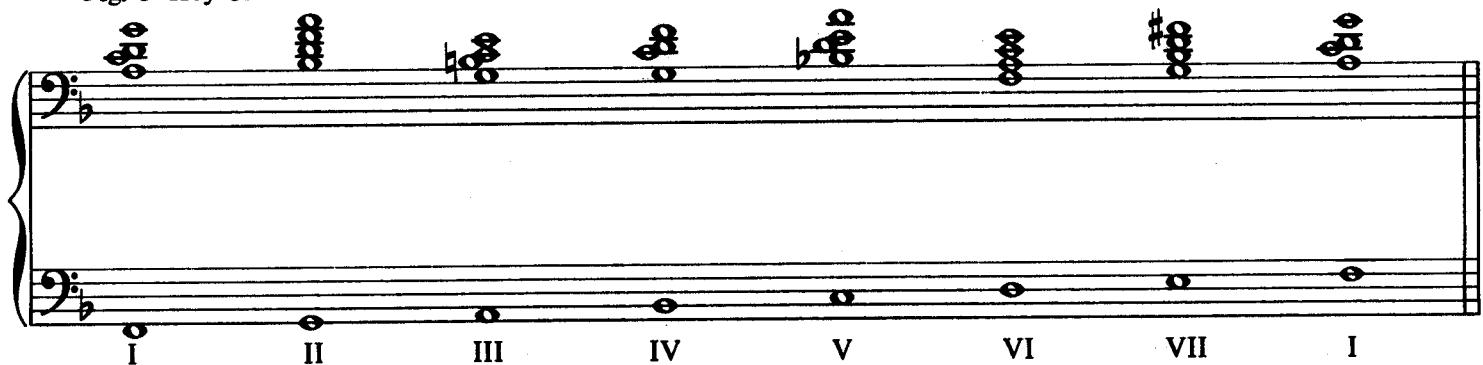


Fig. 7 Key of F<sup>#</sup>  
(Enharmonic of G<sub>b</sub>)

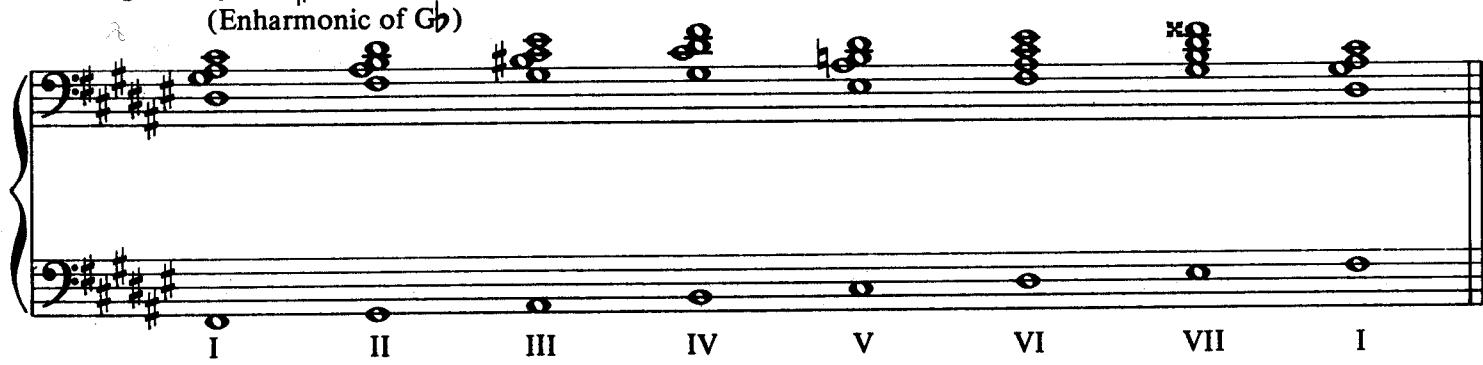


Fig. 8 Key of G<sub>b</sub>  
(Enharmonic of F<sup>#</sup>)

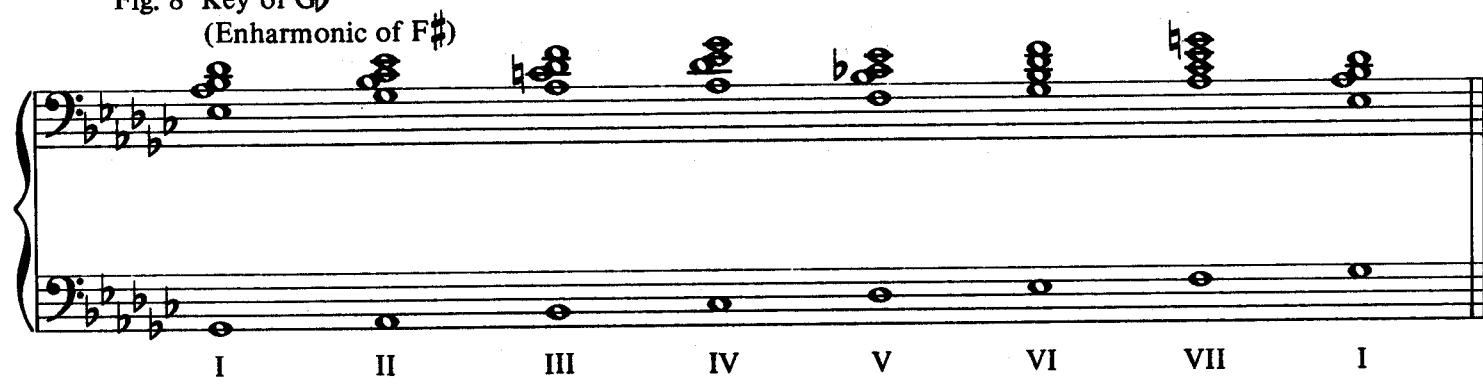


Fig. 9 Key of G

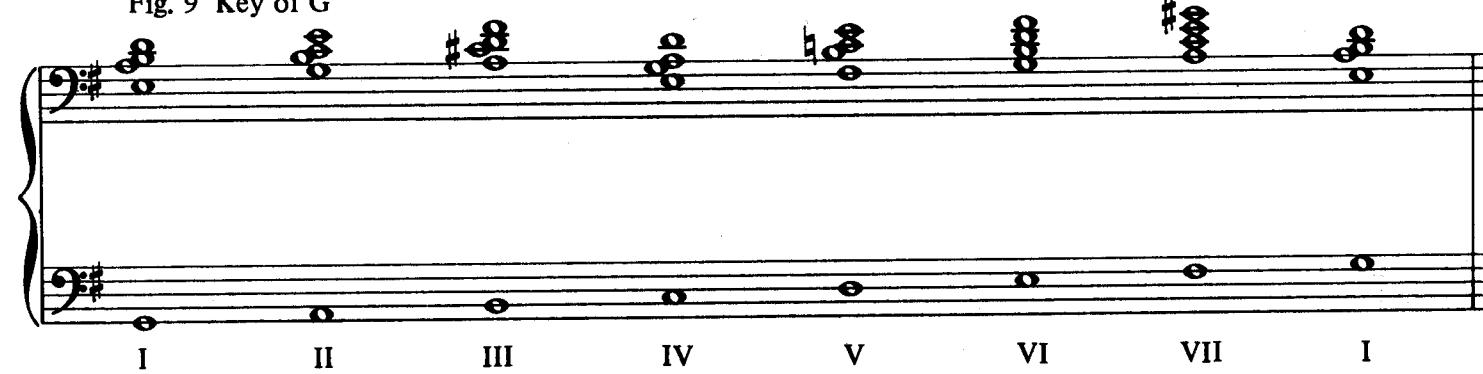


Fig. 10 Key of A $\flat$

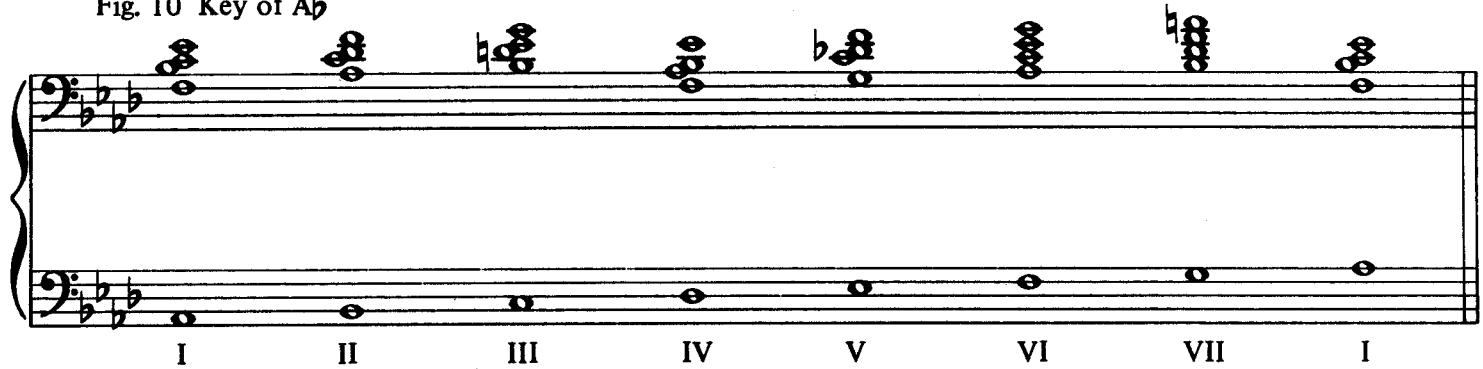


Fig. 11 Key of A

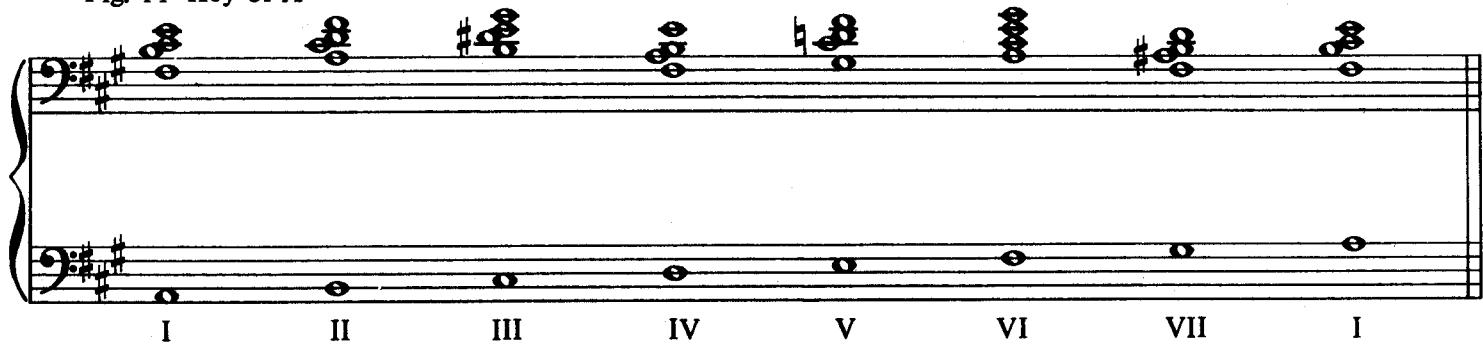


Fig. 12 Key of B $\flat$

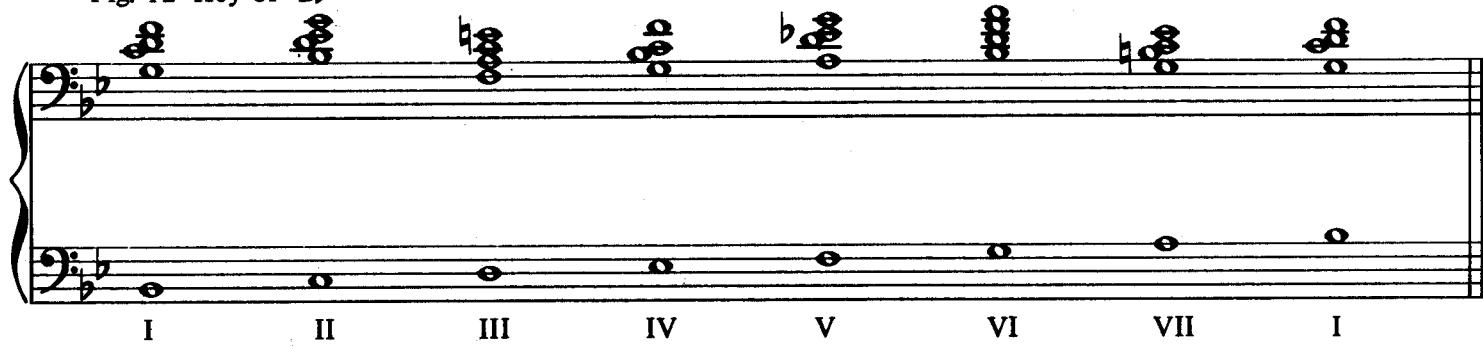
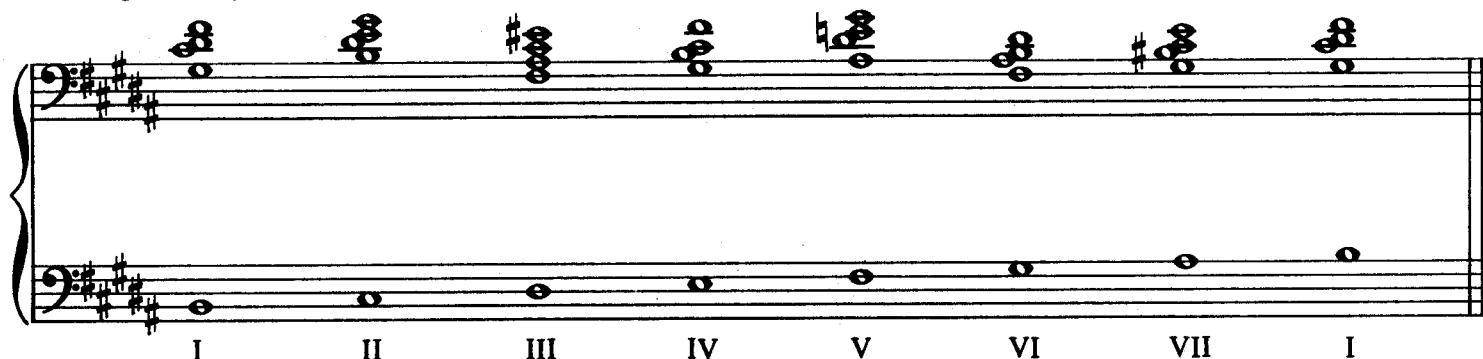


Fig. 13 Key of B



## *Chapter 22*

### **Contemporary Left Hand Voicings Five Qualities**

Figures 1 through 12 illustrate the voicing system applied to the five chord qualities.

Fig. 1

A piano keyboard diagram with two staves. The top staff shows the white keys from middle C to the next C. The bottom staff shows the black keys from the first C-sharp to the next C-sharp. Above the staffs are five pairs of chords:

Chord Quality	Top Note	Middle Note	Bottom Note
CM	C	E	G
Cx	C	E	B
Cm	C	E	A
Cø	C	E	D
Co	C	E	F

Fig. 2

A piano keyboard diagram with two staves. The top staff shows the white keys from middle C to the next C. The bottom staff shows the black keys from the first C-sharp to the next C-sharp. Above the staffs are five pairs of chords:

Chord Quality	Top Note	Middle Note	Bottom Note
D♭M	D	F	A
D♭x	D	F	C
C♯m	C	E	A
C♯ø	C	E	D
C♯o	C	E	F

Fig. 3

A piano keyboard diagram with two staves. The top staff shows the white keys from middle C to the next C. The bottom staff shows the black keys from the first C-sharp to the next C-sharp. Above the staffs are five pairs of chords:

Chord Quality	Top Note	Middle Note	Bottom Note
DM	D	F	A
Dx	D	F	C
Dm	D	F	E
Dø	D	F	B
Do	D	F	D

Fig. 4

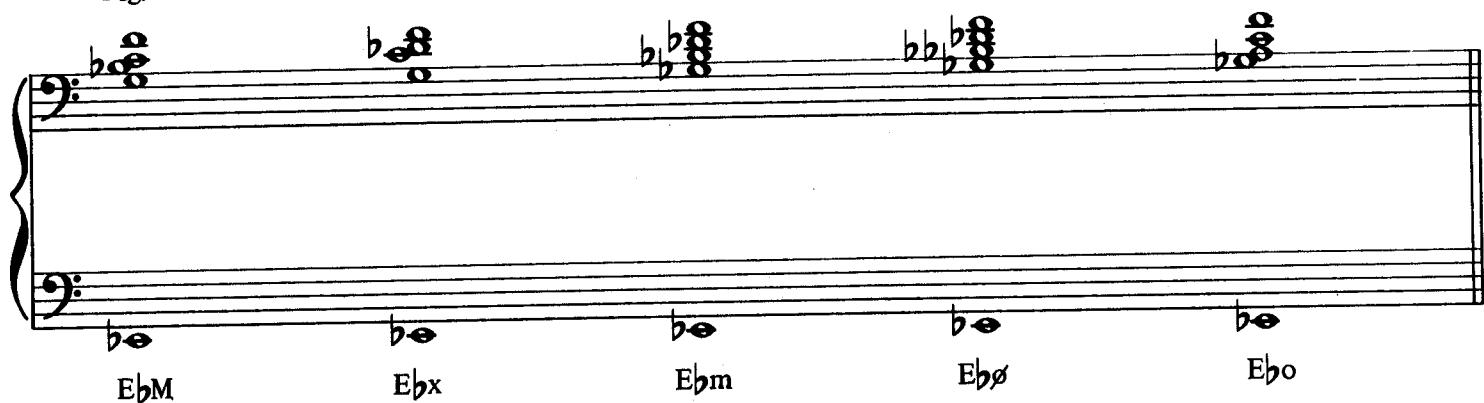


Fig. 5

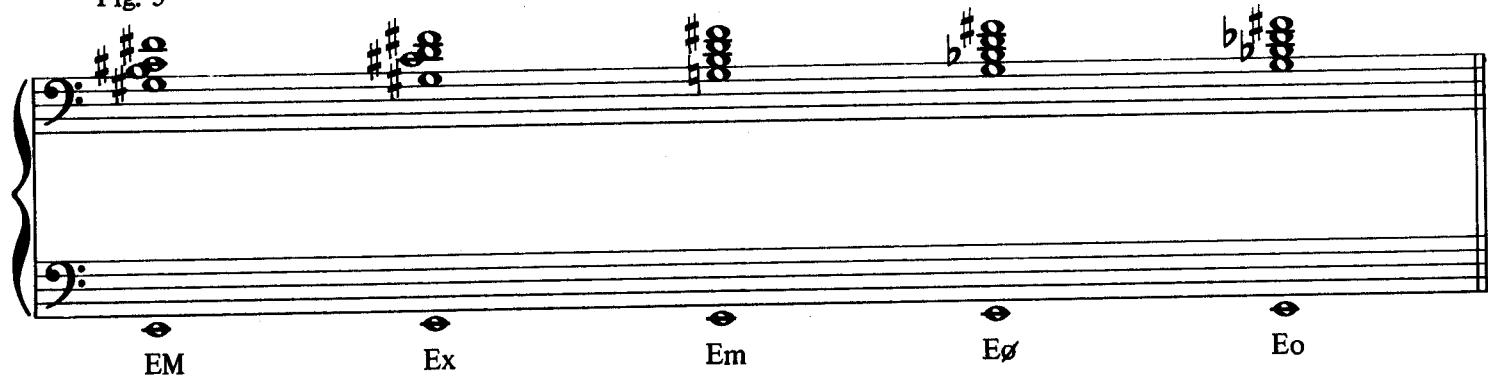


Fig. 6

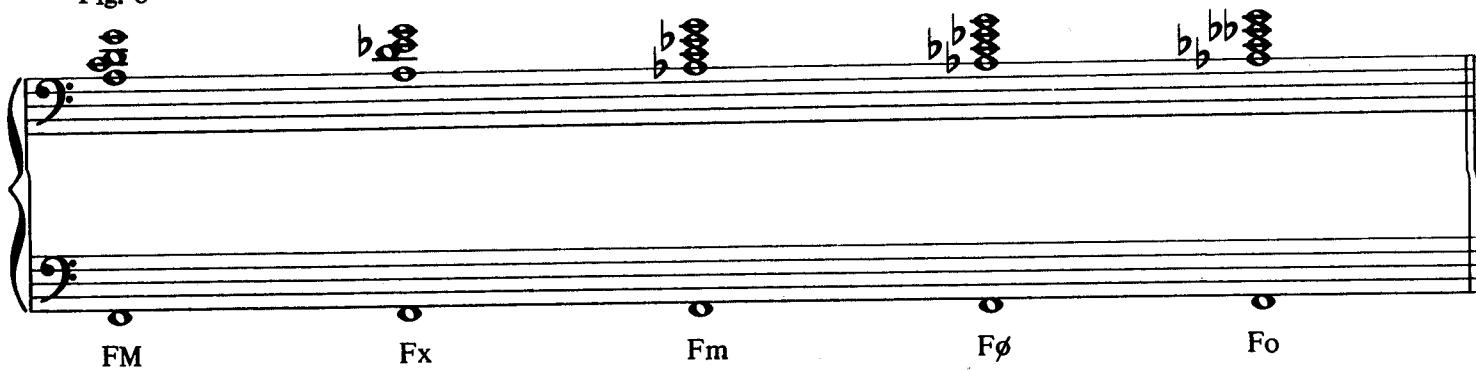


Fig. 7

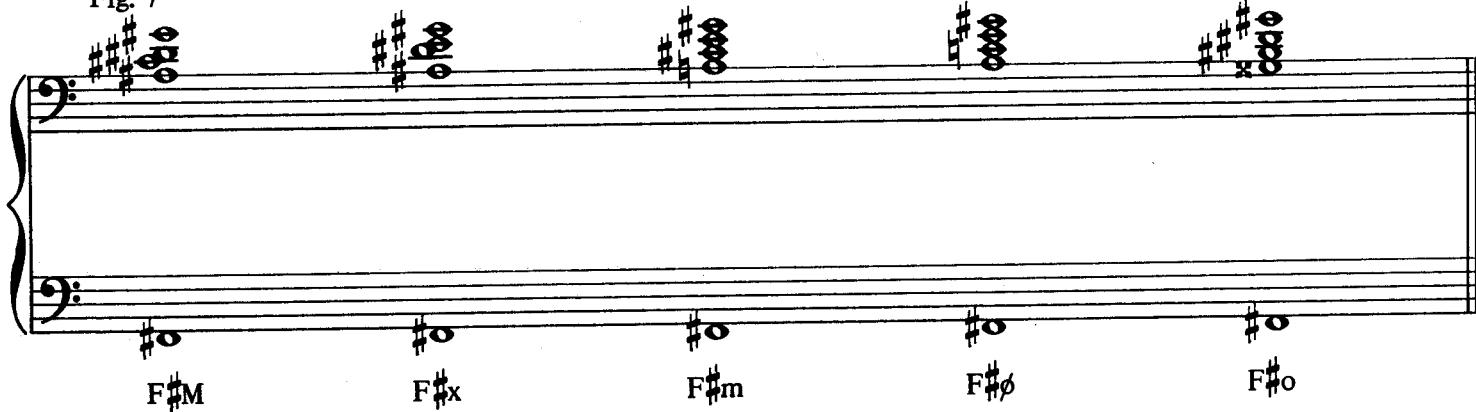


Fig. 8

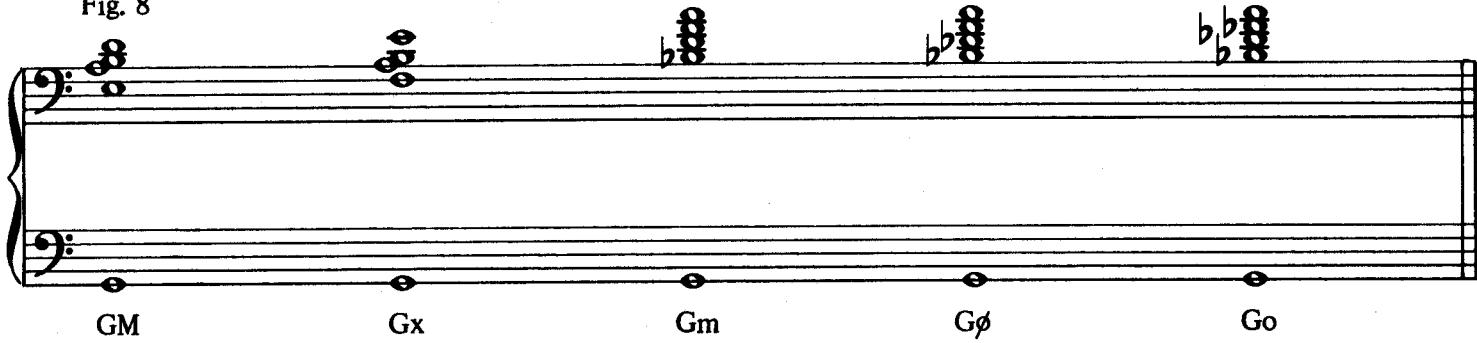


Fig. 9

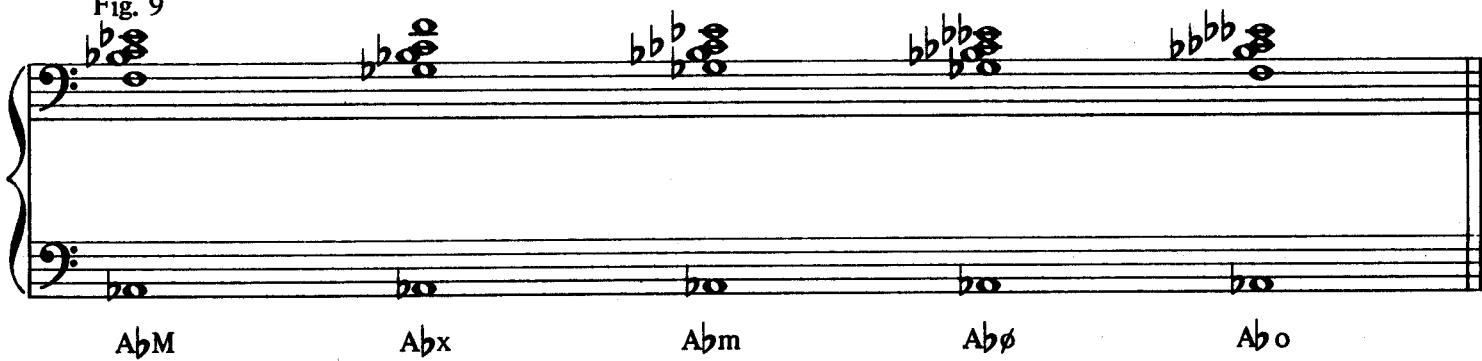


Fig. 10

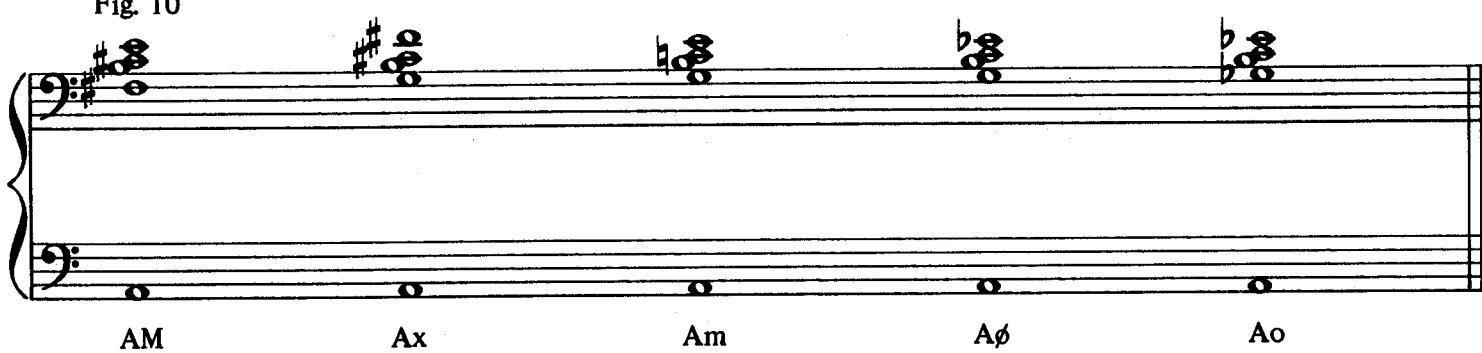


Fig. 11

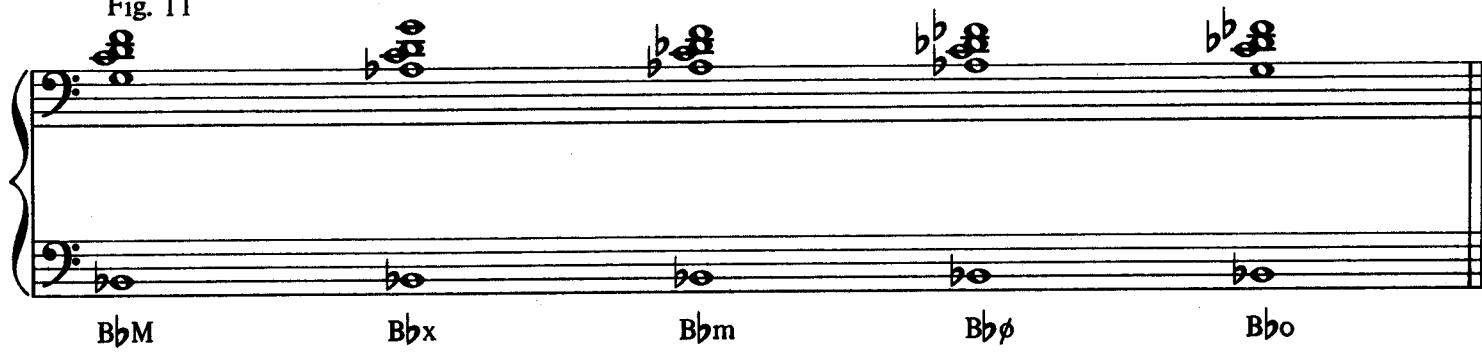
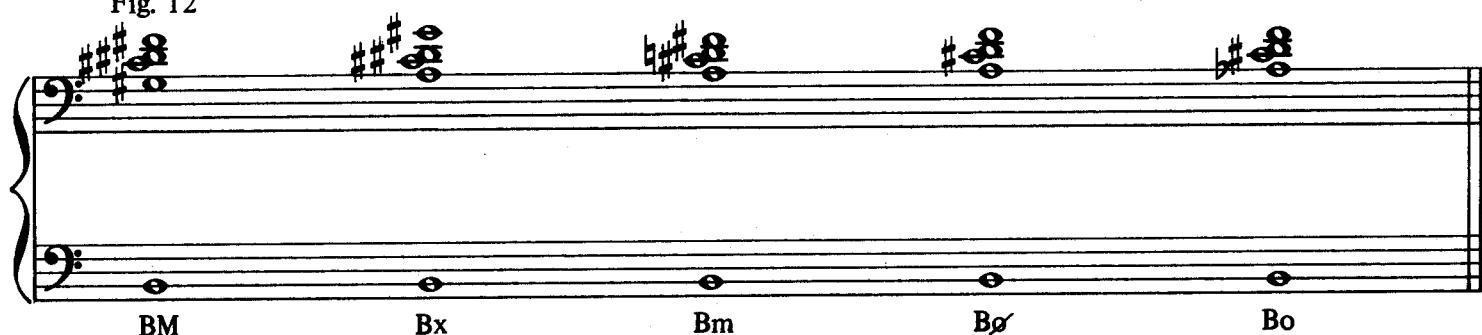


Fig. 12



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*John Mehegan* had a distinguished career both as a jazz educator and writer on jazz piano and its technique. He taught at the Metropolitan Music School in New York and was also jazz instructor at the Juilliard School of Music. He was for several years jazz critic for The New York Herald Tribune.

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