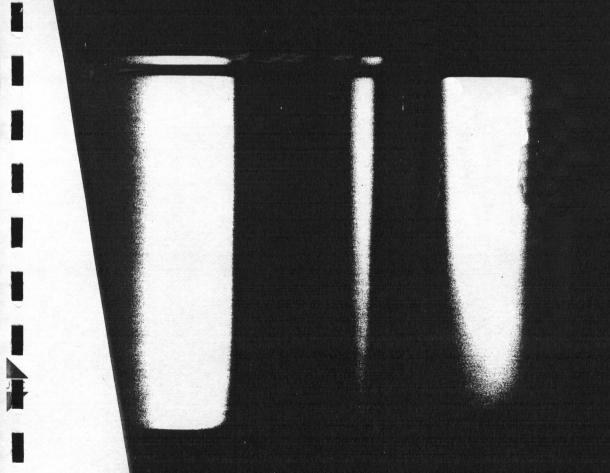
A CREATIVE APPROACH TO

# D105 JAZZ PIANO HARMONY

B Y

BILL DOBBINS



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## Introduction

The piano is one of the most unique of all western musical instruments. Aside from its enormous range, its most useful feature is the possibility of sounding many pitches simultaneously. Because of the design of the keyboard and the manner in which it is played, working with chords of four more notes is much easier than on the guitar or the various mallet instruments. It would seem, therefore, that in order to master the instrument in a truly creative sense one would need to become as aware as possible of the piano's harmonic potential.

About ten years ago I began to become more and more frustrated with my inability to uncover parmonies which sounded fresh and colorful. I seemed to be playing the same voicings over and over until many sounds which were initially very interesting to me had become rather predictable. While searching for a solution I made an effort to notice any harmonies in the playing of ther pianists which attracted my ears. This attentive listening brought me to two important disloveries. First, there was really no correlation between the number of notes in a chord and the degree of interest it aroused. I noticed many instances in Duke Ellington's comping, for example, vhere a simple triad sounded like something completely new. Second, there was no correlation between the degree of distance from the key (or degree of abstraction) and the degree of musical interest. While extremely dissonant sonorities attracted my attention quite easily, their use in elation to the musical context often sounded rather arbitrary. On the other hand, I was astounded to realize that many of the sounds which completely mesmerized me in the comping of Hank Jones were actually based on simple harmonic relationships such as secondary dominants br II - V sequences. And many of the sounds which struck me so forcefully in the playing of Clare Fischer consisted of the most common harmonic structures, but used in a less common inversion pr superimposed over a more colorful bass note.

The most important aspects of strong harmonic music seemed to be the choice of notes in the individual sonorities and the voice leading from one sonority to the next. I began to discover, however, that the many harmonic formations which I thought I already understood could be used in ways I had never imagined. In short, I began to realize that really getting deeply into the harmonic possibilities inherent in the chords and voicings I already knew held far more creative potential than looking for different chords merely for the sake of finding different chords. As I began to figure out some of the intriguing things I was hearing on records, however, I came to a further frustration. I could play the thing I had learned from the record, but I couldn't incorporate that particular sound into my own improvising. This book is actually the result of my own struggle to find an approach to harmony which could be personal and creative, while utilizing harmonic vocabulary known to all.

The notes of a simple C major seventh chord (C, E, G, B) are familiar to even the most elementary jazz pianist. Yet most jazz pianists, including seasoned professionals, use little more than half of the possible voicings of these notes in the familiar close and drop two positions, and a much smaller percentage of the possible voicings in the more widely spread positions. As we shall soon see, these same four notes can be superimposed above many different bass notes to suggest many different harmonies, including A=9,  $F\Delta 9^{\sharp 11}$ , D13sus, among others. Furthermore, each inversion of each possible spacing or position of this C major seventh chord yields a uniquely different way of stating each of these different harmonies. It should be obvious, then, that the pianist who is horoughly familiar with sixty percent of the possible harmonic uses of the notes C, E, G and B will have a far richer and potentially more expressive harmonic vocabulary in hand than the pianist who is familiar with only five or ten percent of the possibilities.

This study begins by exploring the harmonic potential in four-note chords, both as basic harmonic entities and in combination with other bass notes or chord roots. Basic seventh chords which are combined with different bass notes will later be referred to as upper structure seventh chords. These four-note chords have been divided into four groups for the purpose of practical study and application: the five basic seventh chords, altered and suspended seventh chords, triads with added ninths (seconds) or fourths and chords which contain no conventional triads. We begin with the most familiar combinations of notes and move gradually to the combinations heard less frequently. I am certain, however, that every pianist who takes some time to work with the possible uses of only the five basic seventh chords will be as amazed as I have been at the multitude of fresh sounds which soon begin to emerge.

I chose to begin with four-note chords for two very practical reasons. First, four notes are a sufficient number to express a wide variety of harmonies, especially when the possible four-note chords are later combined with different bass notes. Second, four notes are a small enough number that any well motivated pianist can soon become fairly facile at working creatively with chords of this density, even in an improvising situation. With each additional note, however (five, six, etc.), the structures become many times more unwieldy, and the tendency to use the same familiar voicings over and over increases progressively. The exploration of four-note chords will be followed by discussion and illustration of the use of the same principles and techniques applied to chords with either a greater or lesser number of notes. Four-note chords provide a useful harmonic foundation upon which thicker and more complex sonorities may be built. They also provide a ready made source from which textures of one, two or three lines (voices) may be easily extracted.

There are three important keys to obtaining the maximum benefit from this study. First, the individual voicings and their combinations with various bass notes must be practiced patiently and thoroughly as indicated in the text. Before any sound can be used in a creative and spontaneous manner while improvising, it must be thoroughly assimilated by the ears and hands together. The ears must be able to hear ways in which a particular sound can be used within various harmonic contexts and the hands must be able to locate that sound immediately and without effort or conscious thought. Second, if a particular voicing seems unconvincing or too dissonant for ones personal taste, it may simply be discarded. Perhaps it will be heard differently at a later time. However, all possible inversions of the voicings which are of interest should be practiced thoroughly as indicated, in order to facilitate their use in creative music making. Third, practice should proceed as much as possible without looking at the examples in the book. As soon as a particular voicing or inversion is understood, all the possible transpositions should be worked out at the keyboard. Since we perform and improvise at our best without looking at the music, developing the habit of practicing in the same way will save considerable time and significantly accelerate the assimilation of musical vocabulary. For this reason fewer and fewer transpositions or inversions are actually included in notated form in each successive chapter.

The question may be asked, whether or not it is really necessary to practice all material in all inversions and in all keys. The answer, of course, is that it is not really necessary for any of us to do most of the things we do. If we are really interested in developing our bodies we submit to endlessly repetitive exercise regimens with little complaining, as long as we eventually see some positive result. If I wish to have a richer harmonic vocabulary than I do now, and to use that vocabulary with both greater effectiveness and spontaneity, it seems only logical that I will need

paractice differently than I do now. Unfortunately, contemporary society and the media longly condition us to expect to be able to have anything we want almost immediately, and with ne investment of as little time or money as possible. No one seems to notice that most things the can be so easily obtained are not worth having to begin with.

he harmonic approach discussed in this book is not intended in any way to be a system of hartily. It merely presents the interested pianist with an organized approach through which to malize as broad a menu of harmonic possibilities as he or she cares to digest. It also suggests rections in which to look for practical applications of this vocabulary, whether in a relatively rentional or highly complex stylistic context. The rest depends on the creative imagination of rendividual. At the end of the book I have also provided lists of books and records and musical orks which have been influential in either directing or shaping my own harmonic development. Of course, an ongoing development. After ten years of working along the lines outlined here, feel that I have just reached the point at which I can really begin to be creative with harmony. The other hand, I find something fresh and revealing every time I sit at the piano for just a few lates to explore one four or five-note voicing from a number of different points of view. I neerely hope that each pianist who undertakes this journey will, in time, feel both as rigorously lenged and as richly rewarded by it as I do.

# I. Exploring the Five Basic Seventh Chords

Our study begins with an exploration of the five basic seventh chord types: major, dominant, minor, half diminished (also known as minor seventh with a flat or lowered fifth) and diminished. There are two important reasons for beginning with this harmonic group. First, a thorough understanding of these basic seventh chords is an obvious prerequisite to a clear and practically useful understanding of harmonic structures which are more complex. Second, these five basic seventh chord types have the greatest potential for creative expression in the widest possible range of musical styles. Although they are of great practical use in relatively conventional or mainstream jazz, it will quickly become clear that they have great potential for use in more contemporary contexts as well.

The aim of the first group of musical examples is to provide the most practical aural and tactile means of assimilating the fundamental characteristics of each seventh chord type. There are at least four useful ways in which to practice a particular voicing or series of voicings in close position. First, with the left hand alone, since the left hand often provides a harmonic accompaniment for melodic lines played by the right hand. Second, with the right hand alone, since the right hand sometimes plays melodic lines which outline seventh chords or melodic lines in which each note is harmonized with a close position seventh chord (the latter technique is commonly referred to as "block chord style"). Third, with both hands doubling the same voicing in two adjacent octaves, if there is not sufficient time available for practicing with each hand separately. And fourth, with the three highest notes in the right hand and the lowest note in the thumb or index finger of the left hand. By practicing in this way, the remaining fingers of the left hand will later be available to add various possible bass notes below any four-note voicing without the necessity of learning a new fingering. This last method of practice is also the most useful way of working with the various seventh chords in the "drop two" position, where the second note from the top of the close position voicing is "dropped" or lowered one octave. Of course, just as four-note voicings can be played in many spacings or positions other than the two which are emphasized here, any given material may be practiced in many ways other than those described above. Some of these will be illustrated later on as an indication of even broader applications which are available to those rare explorers whose harmonic appetite is truly insatiable.

The aim of the second and third groups of musical examples is to aid in the acquisition of a thorough aural and tactile familiarity with the maximum range of harmonic expression available through the creative use of the five basic seventh chord types. In the second group, each type of seventh chord is combined with different possible bass notes or chord roots, which subtly or dramatically change the musical meaning of the given four-note structure. In the third group, the five basic seventh chord types are systematically practiced in combination with each of the possible bass notes or chord roots.

The aim of the fourth group of musical examples is to illustrate how the five basic seventh chord types, and the many harmonies in which they can be found, may be used in relation to short harmonic progressions. There are two aspects of this section which are worth mentioning in advance. First, the examples are intentionally arranged in order of their harmonic complexity, beginning with the most basic. Second, it is extremely important that the upper four voices be played in all four possible inversions. Every harmonic statement which consists of four-note voicings above a bass line, regardless of the degree of simplicity or complexity, can be played in four different ways. In addition, each time the same four-note voicings are arranged in a different

icing or position (more open or close) there are four more ways of playing the same material. In often a shocking revelation for pianists or writers to hear how dramatically a different arangement of the same harmonic lines can change the musical result. Finally, each person should periment with developing their own progressions from the harmonic material which has been nalized. This is the most important step in the process, that of transforming the object of ady into a creative tool which can be used in a personal and individual manner.

material which has been studied. The illustration of the use of this material in a harmonic ompaniment for blues in F as well as in short phrases from several well known standard tunes and assist in initiating a more personal application of this approach in relation to any reperter or style. Playing these short examples through all keys will deepen the understanding of the abulary involved and will greatly accelerate the process of internalization and personalization.

chapter ends with an original composition in which the harmonic material consists of only five basic seventh chord types combined with appropriate bass notes. This piece should help to it clear that there are many colorful and evocative things which can be expressed by means these basic seventh chord structures. Although the material introduced in each chapter may at statement returns the second representation of the property of the property

### d symbols used throughout this text are as follows:

- = major seventh chord
- minor triad with a major seventh
- = diminished triad with a major seventh
- = half diminished seventh chord (the equivalent of  $-7^{15}$ )
- = diminished triad (°7 = dimished seventh chord)
- = minor triad (-7 = minor seventh chord)
- = augmented fifth
- = raised chord tone ( $C7^{\sharp 9} = C7$  with a raised ninth)
- = lowered chord tone ( $C7^{b9} = C7$  with a lowered ninth)
- anal lines are used to show chords above bass tones: C/D = C triad above D.
- rizontal lines are used to show chords above chords:  $\frac{C}{D} = C$  triad above D triad.

ples I.A1 - I.A5 illustrate a basic method for practicing and internalizing the five basic sevinord types in close position in all keys. Practice should be in a steady tempo with a clear but used pulse. If we practice with no regard for a particular tempo, we will probably play that way fractice should begin at a tempo in which all inversions of a particular seventh chord type can that yed around the circle of fourths through all twelve keys with little or no difficulty. If we citice at tempos in which we make frequent mistakes, we will probably make frequent mistakes we perform as well. It may be helpful, during the final half note chord at each station in the e of fourths, to mentally recite the name of the next station (F, Bb, Eb, etc.). If so, it will save to predetermine the station at which sharps replace flats. For major seventh chords Gb is a place to make the change, but this will vary depending upon the structure of each particular rd type. When playing half diminished seventh chords, for example, it will probably be helpful hange to sharps after Bb or even F.

Try to be aware of the physical or tactile shape of each harmonic structure, which depends on the distribution of black and white keys. For example, the tactile shape of Eb, Ab and Db major seventh in root position is exactly the opposite of D, A and E major seventh. Listen to the subtle differences in the sounds of each harmonic structure. The point is not to rush through each series as quickly as possible, but to take plenty of time so that connections between the ears and hands can gradually develop at the subconscious level. These seventh chord types should be practiced in this manner until a metronome tempo of about 100 for the quarter note can be easily maintained without mistakes.

### Example I.A1



### Example I.A2



### Example I.A3



### Example I.A4



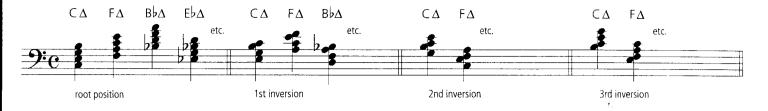
### Example I.A5



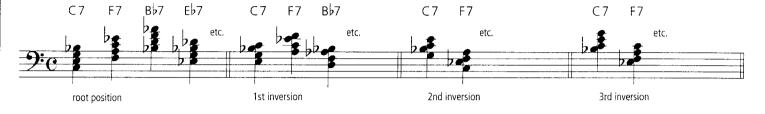
types in close position. The aim is to be able to play all twelve transpositions of a particular acting of a given seventh chord type (all root position major seventh chords, for example). Playsfirst, second or third inversions of a given seventh chord type through the circle of fourths ake time to master. However, the ability to play, with relative ease, any harmonic structure in this group through all transpositions is the only definite proof that this material has truly assimilated. It may be helpful to pay close attention to the visual placement of the root of structure while mentally reciting the note name of each successive station in the circle of 11 structure while mentally reciting the note name of each successive station in the circle of 12 structure while mentally reciting the note name of each chord will be played by 13 stumb of the left hand and/or the little finger of the right hand.

gin at a comfortable tempo. End each harmonic sequence by sustaining the original harmonic ucture for four beats (C major seventh in root position, for example). Each series, then, will ust of four measures in 4/4 time (twelve quarter notes and one whole note). Listen attentively the difference in sound when switching from one harmonic structure to another. Practice in smanner should continue until any harmonic structure in this group can be played through all the transpositions without mistakes at a metronome tempo of about 100 for the quarter note.

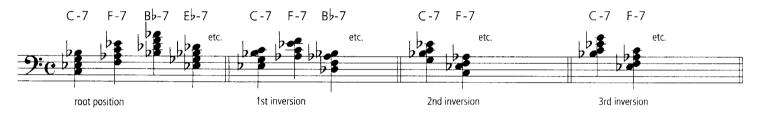
### Example I.A6



### Example 1.A7



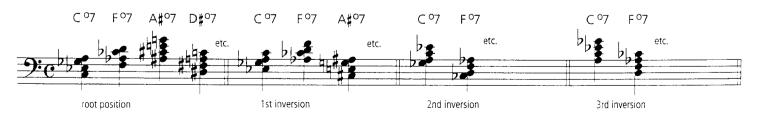
### Example I.A8



### Example I.A9



### Example I.A10



Imples I.A11 - I.A15 illustrate a basic method for practicing the "drop two" voicings of the basic seventh chord types through all transpositions. Notice that in "drop two" seventh chord roicings the chord members which were in the second voice from the bottom of the close position clings are now in the top voice. The often symmetrical arrangement of intervals in the indindual harmonic structures is also worth noticing. For example, first inversion major and minor seventh chords contain perfect fifths on either side of a major or minor second, respectively, and t position major and minor seventh chords are mirror inversions of their second inversion counterparts (perfect fifth, major third, perfect fourth, for example, becomes perfect fourth, mathird, perfect fifth). A clear understanding of the intervallic distribution and symmetry which haracteristic of each particular harmonic structure will be especially helpful when attempting the more demanding types of harmonic exercises. Visual recognition of the placement of the pord roots and mental repetition of the individual stations in the circle of fourths will, again, aid in the rapid assimilation of this material. Start at a comfortable tempo, no matter how slow. The "drop two" voicings of the five basic seventh chords should be practiced in this manner until they are played without mistakes at a tempo of about 100 for the quarter note.

### Example I.A11



### Example I.A12



### Example I.A13



### Example I.A14

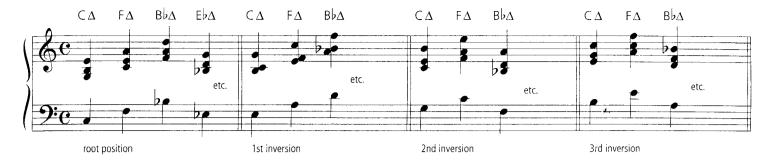


### Example 1.A15

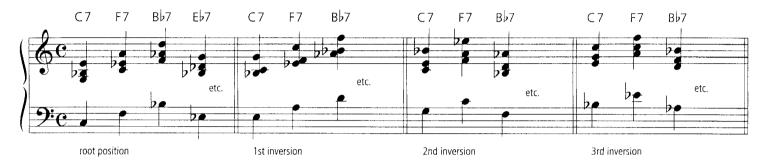


ings of the five basic seventh chord types. The aim is to be able to play any "drop two" voicing of any of the five basic seventh chord types in all twelve transpositions through the circle of carths. The mastery of this final exercise is crucial for the more creative uses of these harmonic textures. The combination of these four-note voicings with different bass notes can lead to unmaginably colorful and expressive harmonic possibilities. However, these can be used in a truly relive manner only after the various voicings of these basic seventh chord types have been thoroughly assimilated. Begin practice at a comfortable tempo, no matter how slow. Practice of the naterial should continue as illustrated until each sequence can be played without mistakes at a po of about 100 for the quarter note.

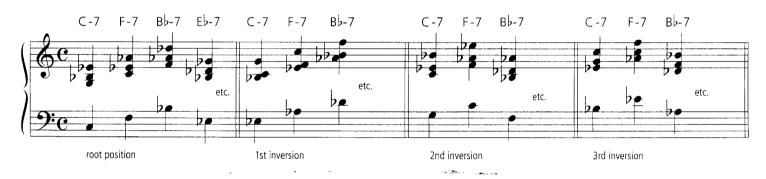
### Example I.A16



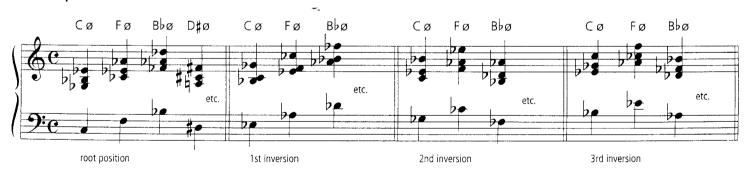
### Example I.A17



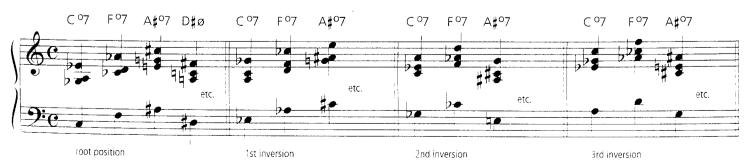
### Example I.A18



### Example 1.A19



### Example I.A20



Proce the close position and "drop two" voicings of the five basic seventh chord types have been broughly assimilated in all transpositions, they may be used to construct short harmonic progressions. Before combining these four-note voicings with the many possible alternate bass tes, however, it will be helpful to use them in their most basic harmonic contexts. For this pure, and for the more extensive study to follow, a brief review of the fundamental principles of onal harmony will be most helpful.

all music which is based on tonal harmony, including music ranging from seventeenth century European music to most contemporary jazz, all functional harmonies belong to one of three basic actional categories: tonic, dominant and subdominant. The most common tonic function chord ased on the first scale degree in the key of the music. Tonic chords are the most completely table or resolved harmonies. The most common dominant function chord is based on the fifth le degree in the key of the music. Since dominant chords contain tritone intervals, they are the st unstable harmonies. The most common subdominant function chord in jazz is based on the econd scale degree in the key of the music. In classical music the most frequently used subdomiit chord is based on the fourth scale degree. Subdominant chords eventually lead to dominant rds, and are usually less stable than tonic chords. The common names for the various scale legrees in major or minor keys run as follows: tonic (I), supertonic (II), mediant (III), subdomit (IV), dominant (V), submediant (VI), and leading tone (VII). The mediant is located halfway perween the tonic and dominant (ascending from the tonic), and the submediant is located halfvay between the tonic and subdominant (descending from the tonic). The term "leading tone" ays implies a half step below the tonic, even in minor keys. Although the pure seventh degree  $\overline{f}$  the natural minor scale (called the subtonic) is a whole step below the tonic, the seventh scale ree in minor keys which figures most prominently in tonal harmony is the one found in the monic minor scale.

n jazz, tonic major and minor chords may be built on the tonic triad and the seventh or the tonic and and the sixth. The sixth in both major and minor sixth chords is a major sixth interval. In minor keys this reflects the melodic minor scale. The major sixth is required in order to convey a conic minor sound, since a minor triad combined with a minor sixth interval invariably sounds it a major seventh chord in first inversion rather than a minor chord in root position. Although he seventh is always major in major chords, it may be minor or major in minor chords (coming mental minor or melodic minor scales). Next to the tonic chord, the chord which shost frequently used in a tonic function is the mediant (III), especially in major keys. When the II chord follows the V chord the effect is that of a clear resolution, but a resolution which sounds final than that of a I chord. The submediant (VI) might also be classified as a tonic function rd, but it should be thought of as more exceptional. This is because when the VI chord follows he V chord it sounds like a resolution, but clearly not the expected resolution. For this reason it is reason a "deceptive" cadence.

Besides the dominant seventh chord, the chord most frequently used in a dominant function is a diminished seventh chord which is based on the leading tone in the key of the music. Though the diminished seventh chord is based on the seventh degree of the harmonic minor cale, it is often used in major keys as well as minor keys. When chords which originate in minor cale, it is often used in major keys as well as minor keys. When chords which originate in minor is are used in major keys, or vice versa, they are commonly referred to as "borrowed" chords. The jazz is a highly chromatic music, the use of chromatically altered tones, whether or not they re thought of as being borrowed from a parallel mode, is a completely normal aspect of musical amon practice. The most important thing in the use of such chromaticism is that the chromatic mes be resolved convincingly. The resolution of altered tones will be discussed further at a after point in this study. For the moment, it is important to understand that the most complete colution of dominant function chords leads to the tonic chord or, at least, a chord which tenctions as a temporary or relative tonic. The most complete resolution of a dominant seventh hard results in root movement up a perfect fourth or down a perfect fifth, which conveys the

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feeling of V - I (G7 to C6, for example). The most common resolution of a diminished seventh chord results in root movement up a half step, which conveys the feeling of VII - I (B°7 to C-6, for example). Other possible resolutions of the dominant seventh chord include root movement down a third, which conveys the feeling of V - III (G7 to E-7), and root movement up a step, which conveys the deceptive feeling of V - VI (G7 to A-7). Other possible resolutions of the diminished seventh chord include root movement up a perfect fourth or down a perfect fifth (B°7 to E-7) and resolutions which result from treating any individual chord member of the diminished seventh chord as if it were the root. Due to the symmetrical nature of the diminished seventh chord, which consists exclusively of minor thirds, any one of the four chord members may function as the root. A B°7 chord, then, might resolve to C, E♭, G♭ or A. As in all types of harmonic movement, the most important factor in making these various resolutions convincing to the ear is smooth voice leading.

The chords which are most frequently used in a subdominant function are, as cited above, based on the second and fourth scale degrees in the key of the music. In a major key the diatonic, or unaltered II chord is a minor seventh chord. In a minor key it is a half diminished seventh chord (also known as a minor seventh chord with a lowered or "flat" fifth). In a major key the diatonic IV chord is a major seventh chord. In a minor key it is a minor seventh chord. As with tonic chords, IV chords may be built on either the triad and the sixth or the triad and the seventh. In a major key this results in a major sixth chord. In a minor key it results in a minor sixth chord. The frequent interchange of the many types of subdominant chords, whether the music is actually in a major or minor key, is quite common in all styles of jazz.

We have now discussed three basic harmonic functions, the most common chords which correspond to these functions and several common diatonic or modally interchangeable substitute chords. II - V - I is the most common progression in jazz which corresponds to the harmonic cycle of subdominant, dominant and tonic. In relation to the subdominant function, IV is a common substitute for II. In relation to the dominant function, VII (diminished) is a common substitute for V. In relation to the tonic function, III is a common substitute for I, while VI sometimes replaces I if a deceptive resolution is intended. In addition, the chord qualities of the subdominant and tonic function chords are variable (II may be minor or half diminished, IV may be major or minor, etc.).

The quality of any chord of subdominant or tonic function may also be changed from its original chord quality to that of a dominant seventh chord if the following chord in the progression permits it. Suppose, for example, that we have the progression D–7, G7, C6. The G7 chord certainly permits the change of D–7 to D7, since the most common resolution of D7 is to G. Suppose that the chord which follows C6 is F–7. The change of C6 to C7 would also be possible, since the most common resolution of C7 is to F. The D7 chord might be called a "secondary" dominant, since it resolves as a dominant, but the resolution is to a chord other than the tonic. We might refer to this D7 chord as V of V, since it resolves to the V chord of the key of the moment, C major. The C7 chord might have at least two possible functions. It might be modulating to F minor, in which case it would simply be V in the new key. If the progression quickly returns to C major, however, the C7 chord would be another secondary dominant (V of IV–, in this case). If we remember that dominant seventh chords and diminished seventh chords are interchangeable, since both are dominant in function, we see the possibility of substituting F#07 for D–7 in the progression above. These changes of chord quality or chord substitution are examples of a general principle that any chord can be approached by its own relative V7 or VIIO7 chord (D7, G7 or F#07, G7).

There are two more basic harmonic movements which should be described in detail, in order to complete our basic overview of tonal harmony. The first is commonly known as the tritone substitution. The second comprises a general category of symmetrical harmonic cycles. The most common application of the tritone substitution is the use of a dominant seventh chord whose root

sa tritone away from a dominant seventh which resolves by root movement up a fourth or down the in the progression G7, C6, for example, substituting Db7 for G7. Another common, but ess obvious, application of the tritone substitution is the use of a dominant seventh chord whose cost is a tritone away from any chord which proceeds by root movement up a fourth or down a lan. In our progression D–7, G7, C6, for example, Ab7 could be substituted for D–7. Notice that a both examples, the tritone substitution resulted in a resolution of the substitute chord by root examples, the tritone substitution resultant root movement makes the use of the tritone stitution extremely inadvisable, since the resolution would sound incorrect and unintentional. The use of the tritone substitution illustrates the general principle that any chord can be applicated by a dominant seventh chord whose root is a half step above.

he most common interval used for symmetrical harmonic cycles is the minor third, although he tritone, major third, whole step and half step are frequently used as well. A common application of such a cycle is the use of minor seventh chords which ascend by minor thirds, eventually onnecting with a tritone substitute dominant seventh chord. If we have one measure of D–7, one usure of G7 and one measure of C6, for example, we might insert a cycle of minor seventh lards and use a tritone dominant substitute as follows: D–7 (two beats), F–7 (two beats), Ab–7 two beats), Db7 (two beats), C6. When transcribing and analyzing standard tunes or jazz tunes in recordings, it will be most helpful to notice the use of the various kinds of substitutions and although the composer and the composition may be difficult to find or her may not exist at all, depending upon the composer and the composition. But the dominant not tonic functions should be clear in any piece of tonal music.

the musical experience of the individual. The diagram below should be helpful in summarizing the basic harmonic movements and substitutions discussed above.

Subdominant	Dominant	Tonic		
▶VI7	المسارر مسترين			
VIIº7 of V				
II7				
IV-7 (IV-6)		(♭VIΔ)		
IVΔ (IV6)	<b>Ы</b> 117	(VI-7)		
IIø	$VII_0\lambda$	I–7 (I–6) or ЫПΔ		
II–7	V7	IΔ (I6) or III–7		
II–7 IV–7 bVI–7	♭II7	ΙΔ (Ι6)		
	V7 bVII7 bII7	I–7 (I–6)		

In preparation for further study of the five basic seventh chord types it will be helpful to begin creating harmonic progressions by exploring the possibilities discussed above. It should be noted that major sixth chords have the same structure as minor seventh chords (C6 contains the same pitches as A–7) and minor sixth chords have the same structure as half diminished seventh chords (C–6 contains the same pitches as Aø). The following steps will be helpful in applying these basic chords to common harmonic usage.

- 1. Remain in either close position or "drop two" throughout the entire progression. In moving from one voicing to the next, retain all common tones and move the remaining tones by step. If a symmetrical harmonic cycle is being used, however (D–7, F–7, etc.), move all tones in a parallel manner for the duration of the cycle. In each practice session play some progressions in close position and others in "drop two", in order to become equally familiar with both structural types.
- 2. After playing a particular progression in one key, repeat the same progression through the circle of fourths until it returns to the original key.
- 3. Play a particular progression four times, beginning on the next highest inversion of the first chord each time. If the voice leading is consistent, this should result in four different ways of playing the same progression. Repeat each of these four versions through the circle of fourths until the original key returns.
- 4. Play through the harmonic progressions of some familiar tunes, using only these basic voicings. Simplify the chord symbols as necessary. Notice that the diminished seventh chord is the equivalent of the third, fifth, seventh and flat ninth of a 7<sup>b9</sup> chord. Maintain either close position or "drop two" structures throughout each particular tune. If the voicings gradually descend to a register that begins to sound muddy, shift to a higher inversion on the next chord or on the first chord in the next phrase. Try playing some of these progressions in different keys.

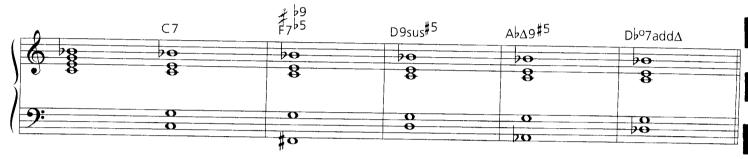
temples I.B1 - I.B5 illustrate many different harmonies which can be obtained by adding dift bass notes to the five basic seventh chord types. Tones which are already included in the ven four-note voicing have not been used as bass notes, unless this actually results in a different (with Eb in the bass, for example, C-7 becomes Eb6). Still, thirty-three functional chords been obtained from our original five.

an introduction to these new chord types, the possible functions of each chord type should be the mined. A–9 could be a I chord in A minor, a II chord in G major (or minor), a IV chord in E inor (or major), or a III chord in F major (if resolved convincingly). Once the possible functions given chord type have been determined, short harmonic progressions can be developed by the ground shift precede and/or follow the given chord. A–9 might be preceded by an chord of some type, and might be followed by a D7 chord of some type (E7<sup>b9</sup>, A–9, D7+<sup>b9</sup>, for apple). Try to develop short harmonic progressions by using only five-note harmonic struction which the upper four notes comprise one of the five basic seventh chord types. The reainder of this chapter will provide further practice methods for assimilating the five-note struction on the opposite page, as well as many examples illustrating the use of these struction developing harmonic accompaniments and harmonizing melodies.

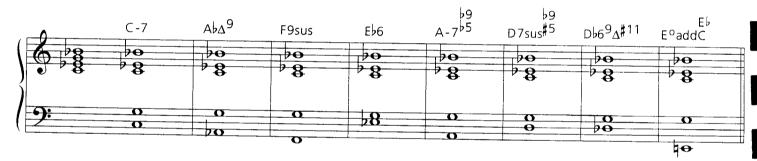
### Example I.B1

СΔ	A-9	FΔ9 <sup>#11</sup>	D13sus	69 Bsus <sup>#5</sup>	69 F#7sus 55	#9 Al <sub>2</sub> 45	
8	8	8	8	8	8	8	
0	0	0	0	O O	<b>9</b>	0	
	CΔ <b>8 0 0 0</b>	CΔ A-9	CΔ A-9 FΔ9 <sup>#11</sup> B B B B  C D D D D  C D D D  C D D  C D D  C D D  C D D  C D D  C D D  C	CΔ A-9 FΔ9 <sup>#11</sup> D13sus  8 8 8 8  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	CΔ A-9 FΔ9 <sup>#11</sup> D13sus Bsus <sup>#5</sup> 8 8 8 8 8  0 0 0 0 0 0 0 0	CΔ A-9 FΔ9 <sup>#11</sup> D13sus Bsus <sup>#5</sup> F <sup>#7sus<sup>5</sup>5</sup> 8 8 8 8 8	CΔ A-9 FΔ9 <sup>#11</sup> D13sus Bsus <sup>#5</sup> F#7sus <sup>55</sup> AbΔ <sup>#5</sup> 8 8 8 8 8 8 8

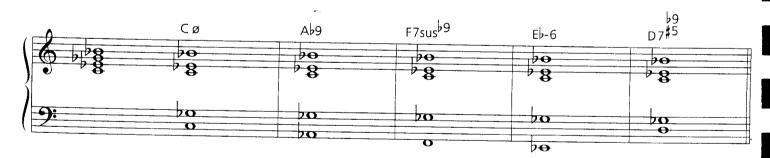
### Example I.B2



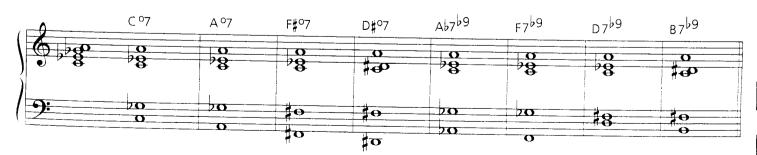
### Example I.B3



### Example 1.84



### Example 1.B5



harmonic structures illustrated in examples I.B1 through I.B5. The following four practice ms are highly recommended for each of these harmonic structures.

lay all four close position voicings of a particular four-note chord above one of the possible bass notes (CΔ above the bass note A becomes A–9, as shown in example I.C1). Play these structures in all transpositions through the circle of fourths (A–9, D–9, G–9, etc.). The right and may play the four-note structures while the left hand sustains the bass note, or the right hand can reach over the left hand and sustain the bass note while the left hand plays the our-note structures. It is also quite helpful to sing the bass note while the left hand plays the our-note structures. When many pianists use left hand voicings which do not contain the root of the chord, they do not actually hear the root in their head. As a result, the harmonic spect of the music can easily become mechanical and impersonal. However, if the chord bots are being heard and felt even when they are not being played, the harmonic conception will convey more vitality and a feeling of conscious intent. When a particular combination of bur-note structure and bass note can be played in all transpositions through the circle of rourths without mistakes at a tempo of about 100 for the quarter note, begin a new combination (CΔ with D in the bass, or D13sus, for example). Repeat this process until all structures hown in examples I.B1 through I.B5 have been practiced in this manner.

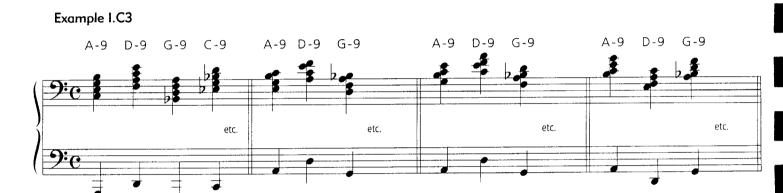
Play all four "drop two" voicings of a particular four-note chord above one of the possible lass notes, as illustrated in example I.C2. Sustain the root and play the bottom voice of the bur-note voicings with the left hand. Play the upper three voices of the four-note voicings with the right hand. Practice as described above until all combinations shown in examples B1 through I.B5 can be played in all transpositions through the circle of fourths without mistakes at a tempo of about 100 for the quarter note.

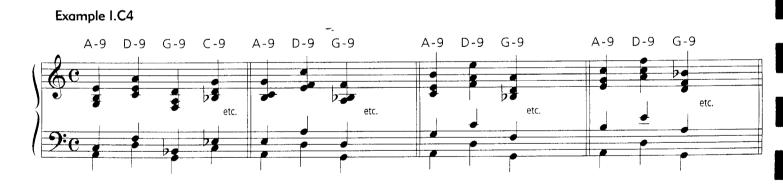
Play a single four-note close position voicing combined with a particular bass note in all anspositions through the circle of fourths, as illustrated in example I.C3 (minor ninth chords voiced 1 3 5 7 9, then 1 5 7 9 3, then 1 7 9 3 5, then 1 9 3 5 7). When all four possible bicings of a given structure have been practiced in this manner, begin a new combination Δ with D in the bass, or D13sus, for example). Practice as described above until any inversion of any structure shown in examples I.B1 through I.B5 can be played in all transpositions brough the circle of fourths without mistakes at a tempo of about 100 for the quarter note.

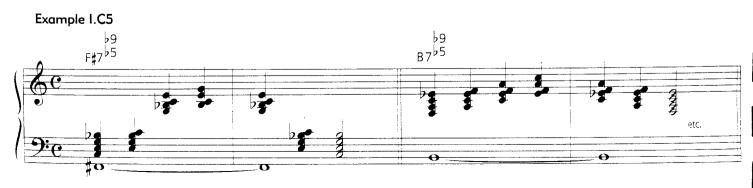
Play a single four-note "drop two" voicing combined with a particular bass note in all transpositions through the circle of fourths, as illustrated in example I.C4 (minor ninth chords piced 13795, then 15937, then 17359, then 19573). Practice as described above until any inversion of any structure shown in examples I.B1 through I.B5 can be played in all ranspositions through the circle of fourths without mistakes at a tempo of about 100 for the quarter note.

and the ears with the many sonorities which can be obtained by combining the five basic centh chords with other possible bass notes or roots. Practice, in the manner described above, provide a helpful foundation for creating harmonic progressions with these sounds.

# Example 1.C1 A-9 D-9 Example 1.C2 A-9 D-9 Example 1.C2 A-9 D-9 Example 1.C2

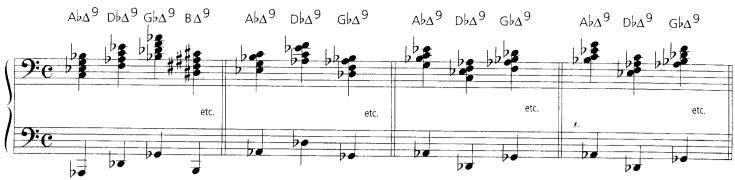




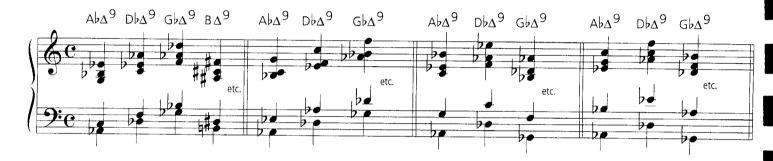








### Example 1.C12



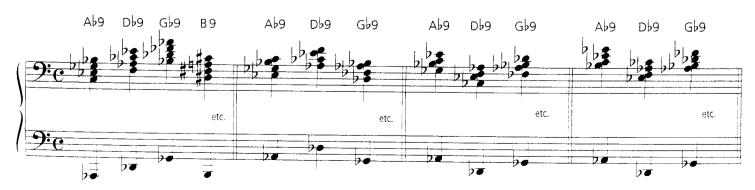
### Example I.C13



### Example 1.C14



### Example I.C15



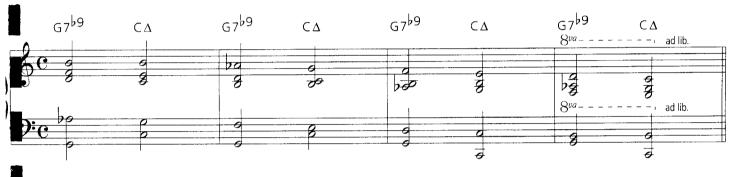


Most pianists have a tendency to use only a limited number of voicing possibilities with little creativity. When the melody of a given tune contains the third of a major seventh chord, for example, the same voicing is often used in every case. Chord tones are often doubled or omitted in a completely arbitrary manner, with little or no attention given to voice leading or the resolution of dissonance. The possible voicings illustrated in examples I.B1 - I.B5 contain several possible structures for any chord type, and can accommodate many different chord members as melody tones. Only one or two structures of each example contain a doubled chord member (the root or bass note). When constructing harmonic progressions from the structures shown in these examples, careful attention should be paid to the voice leading from chord to chord. Common tones should be retained whenever possible, and the voice leading in the remaining lines should be stepwise or melodically convincing. Singing the individual lines will help to determine the relative strength or weakness of a particular harmonic movement. Once a progression has been worked out it is helpful to strike and sustain the first voicing, listen to a particular voice, and follow the sound of that voice to its note in each chord in the sequence. Work of this kind will gradually develop a keener awareness of the linear aspect of harmony, as well as the invaluable ability to hear where the tones want to go.

There are two general approaches to composing or improvising music. One approach is to impose an intellectually conceived system on the tones. The system may vary from something as specific as serialization to something as general as "automatic writing". Although these methods can teach us much about the particular system involved, or about the content of the subconscious mind, they often reveal little about the most unique and mysterious aspect of music: the dynamic quality of the tones themselves! The other approach to writing or improvising music is to listen to where the tones want to go. Through careful and patient listening to the tones themselves, an awareness of general dynamic tendencies and an understanding of musical law can develop in a natural and organic manner. Bassist and composer Chuck Israels once told me a fascinating and revealing story about the great arranger and pianist Gil Evans. While living in the same apartment building for many years, Chuck would sometimes stop outside the door of Gil's apartment and listen closely to hear any musical activity inside. What he often heard was Gil playing the same chord or pair of chords over and over, sometimes changing one or two tones, sustaining each sound for some time. He was opening his ears, inviting the tones to reveal their own innermost wishes. How easy it is for some pianists to rush through a dizzying tirade of block chords or arpeggios, while never having really listened to hear where even one of them wanted to go.

**Examples I.D1 - 1.D3** illustrate useful methods for practicing the progressions derived from the monic structures which have been studied up to this point. In example I.D1, the four-voice tructures are played in all possible "drop two" voicings above the bass notes. This sequence full be practiced through all major keys. In example I.D2, the first of these sets of voicings is yed through all major keys. The other three sets of voicings should be practiced in the same nanner. Example I.D3 shows that the same four-note voicings used as  $G7^{b9}$  and  $C\Delta$  also make  $G7^{b9}$  and  $G7^{$ 

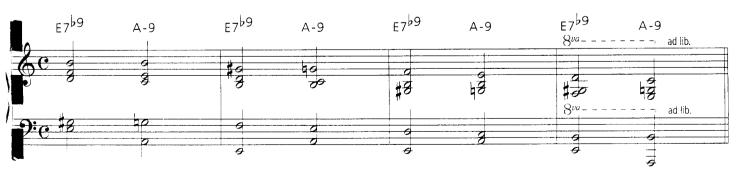
### Example I.D1



### Example I.D2

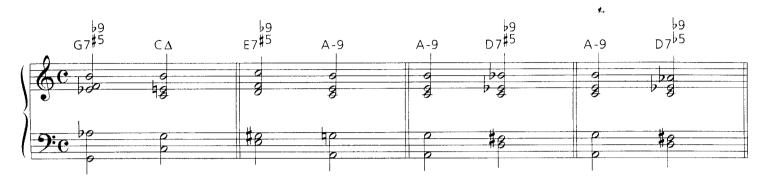


### Example I.D3



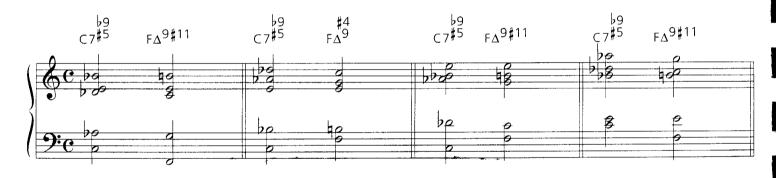
**Example I.D4** illustrates further possibilities using major seventh and minor ninth voicings, with upper structure half diminished and dominant voicings sounding as altered dominant structures above the given bass notes. In order to thoroughly assimilate these possibilities, all inversions of the upper four voices should be explored, and all four versions of each progression should be played in all transpositions through the circle of fourths.

### Example I.D4



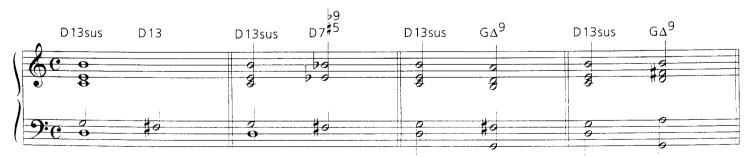
**Example 1.D5** illustrates the four possible versions of a particular altered dominant voicing resolving to a Lydian tonic chord.

### Example I.D5



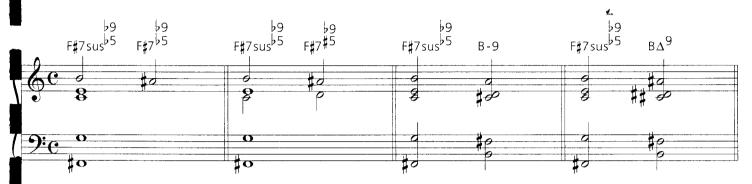
**Example I.D6** illustrates various uses of the upper structure major seventh chord as a suspended dominant voicing. The first two fragments give possible resolutions of the suspension to the third of the dominant chord. The last two illustrate resolutions of the suspension to the major seventh or ninth of the relative tonic chord.

### Example 1.D6



**Example 1.D7** illustrates similar uses of the upper structure major seventh chord as a suspended ltered dominant voicing. The sound of suspended dominant chords in jazz has been so slavish to fashion that only a few highly popularized voicings are commonly used. However, the fourth may be substituted for the third in just about any dominant voicing. The possibilities shown here re the first of many to be explored in this study.

### Example 1.D7



**Example I.D8** should be compared with example I.D6. The use of the tritone substitution in the bass (Ab instead of D) creates a colorful variation of the ordinary suspension. The "suspension" is ow the major seventh in relation to the Ab bass note, and resolves stepwise to the minor seventh. This changes the sound of the chord from an extremely dissonant "major" chord to a more familiar sounding altered dominant chord. Both the common suspension and the variation shown here hould actually be considered as nonharmonic tones rather than as functional chord members. The first chord in this example might also be used as a tonic chord in a more complex harmonic context, as illustrated in the second and third fragments of this example.

### Example I.D8

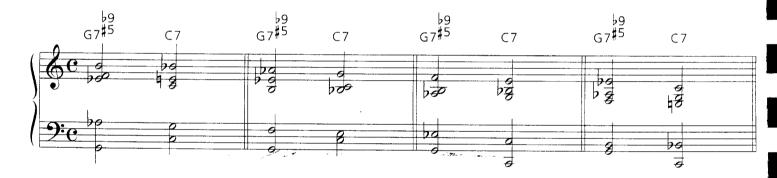


The use of all types of nonharmonic tones is, in general, a great weakness in the work of most jazz omposers and arrangers. There is an unfortunate tendency, largely the result of oversimplified or misguided arranging and improvisation methods, to completely neglect the use of tones in either the melody or accompanying harmony which cannot be neatly analyzed as chord members. The esult is a rather impotent musical vocabulary in which there is actually no dissonance at all in relation to the musical context. In European classical music of the eighteenth and nineteenth centries, the fundamental harmonic unit was the triad. Within such a context, seventh chords of my kind were already dissonant. In jazz, however, the use of many extensions and altered tones with every type of chord is commonplace. In order to create a real dissonance in jazz, then, it is becessary to use tones which need resolution within a given context. The handful of truly great zz writers and pianists, such as Duke Ellington, Thelonious Monk, George Russell, John Lewis,

Bill Holman, Gil Evans, Gerry Mulligan, Bob Brookmeyer and Clare Fischer, have clearly understood this potential problem and have each found convincing personal solutions. Simplistic rules about such things as exposed minor ninth intervals or lists of "avoid tones" teach students, by implication, that aspiring writers or pianists can evade the difficult and time consuming task of learning how to listen. Of course, it is equally important to be able to hear which tone in a commonly used "jazz harmony" is the most dissonant. But sometimes a bittersweet altered dominant voicing with the major seventh in the melody is just the right thing, as long as the resolution is convincing.

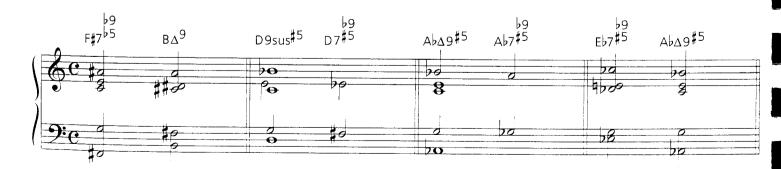
Up to this point every harmonic movement has made use of an upper structure major seventh chord. Now the focus will shift to an exploration of some possible applications of upper structure dominant seventh chords. **Example I.D9** makes use of the basic dominant seventh chord in order to illustrate a simple aspect of the linear or "melodic" nature of harmony. Although the augmented fifth of the G seventh chord (Eb) could easily resolve by step to the ninth of the next chord, the leap to the root (C) gives this progression a strong blues color. Blues colors or blue notes (b3, b7 and b5) have more to do with the relationship to the momentary key of the music than with the relationship to the individual chord. The bluesy interval in this example (Eb, C) actually makes the resolution chord simpler, while the richer sounding C9 chord would weaken the blues connotation. Compare this example with the first fragment of example I.D4. Obviously, we are dealing with personal aesthetic choices rather than "good or bad". That is why the lifelong work toward perfecting the ability to listen actively and attentively is the single most important task of the aspiring creative musician.

### Example I.D9



**Example I.D10** illustrates the use of upper structure dominant seventh chords to create extended dominant or tonic function harmonies. Compare the fragments in this example with examples I.D7 and I.D8.

### Example I.D10



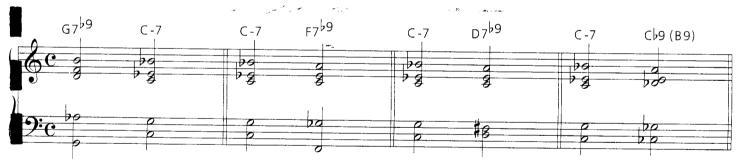
**Example I.D11** illustrates the use of upper structure dominant seventh chords to create diminshed seventh chords with added tones. The first fragment shows the most common resolution of the diminished seventh chord: root movement up a half step. The other two fragments illustrate the use of a tonic diminished seventh chord as an embellishment of a tonic major chord. This embellishment is used less often with tonic minor chords, since the tones of the diminished scale are nearly the same as those of the melodic minor scale. Extended diminished chords already tend to sound like chromatically altered tonic minor chords.

### Example I.D11

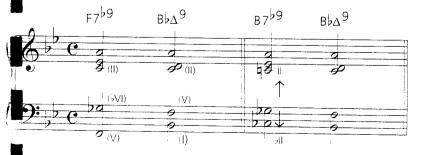


in examples I.D12 - I.D16 the use of both basic and upper structure minor seventh chords is illustrated. In example I.D12 the basic C–7 chord functions first as tonic (I), then as subdominant II, then IV). Although the lowered ninth is used in the progression C–7, F7<sup> $\flat$ 9</sup>, the unaltered winth is used in the progression C–7, B9. Example I.D13 illustrates the reason for this. If B7 $^{\flat}$ 9 is intended to resolve to B $^{\flat}$  (as a substitute for F7), it contains two conflicting second scale degrees in the tonic key. The tones of B7 $^{\flat}$ 9 clearly want to go to E rather than B $^{\flat}$ . While the tritone substitute  $7^{\flat}$ 9 chord (B7 $^{\flat}$ 9, in this case) is often used inattentively and unintentionally by immature musicians, the great pianists and writers referred to earlier always tend to avoid it, unless they lish to intentionally emphasize a musical arrival point or make a suspenseful pause before a clear resolution (usually stepwise and in contrary motion to the bass). Listen closely to the difference in the sound of these two cadences.

### Example I.D12

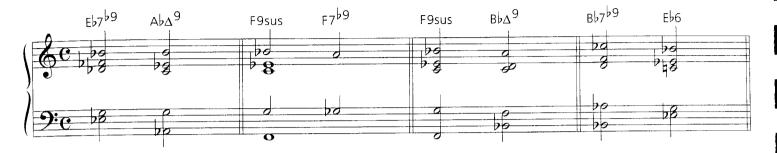


### Example I.D13

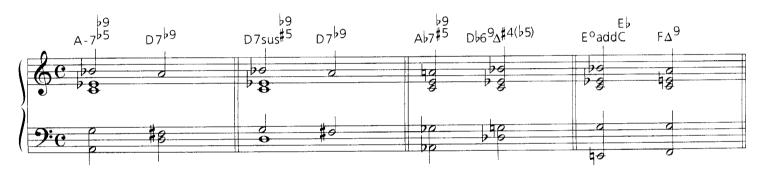


**Examples 1.D14** and **1.D15** illustrate uses of upper structure minor seventh chords. The individual chords in each harmonic fragment should be analyzed in regard to their most basic function: subdominant, dominant or tonic. While playing each progression, listen closely to the voice leading in each individual line. Compare the sounds and harmonic functions of these progressions with those found in examples I.D6 and I.D8.

### Example I.D14

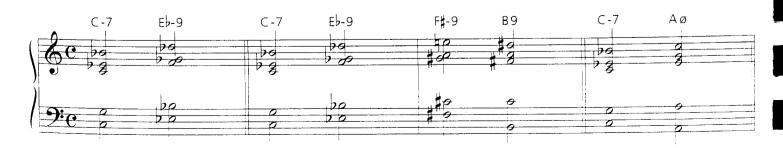


### Example I.D15



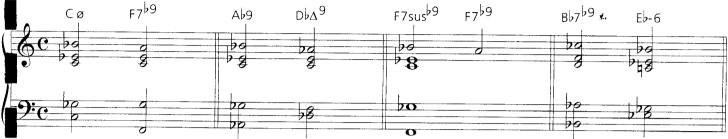
**Example I.D16** illustrates a symmetrical cycle of minor seventh chords, as discussed earlier. C–7 progresses to F‡–7 by means of transposition in ascending minor third intervals. F‡–7 is then combined with B7 to form a II - V progression which implies the key of E or B♭ (if B7 is resolved as a substitute for F7). In the final fragment of this example, C–7 is combined with Aø. This implies a movement from IV to II in the key of G minor (or major, with borrowed chords). This illustrates another common use of root movement down a third: between two diatonic chords of the same basic function (subdominant, in this case). The next chord in the progression would probably be some form of D7 or A♭7. Similar diatonic progressions include VII - V and I - VI.

### Example 1.D16

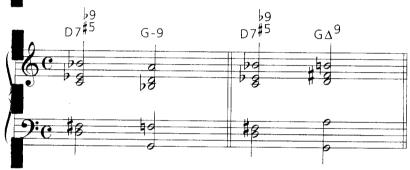


**Examples I.D17** and **I.D18** illustrate uses of both basic and upper structure half diminished seventh chords. The individual chords in each harmonic fragment should be analyzed in regard to being most basic function: subdominant, dominant or tonic. While playing each progression, listen closely to the voice leading in each individual line. Compare the sounds and harmonic functions of these progressions with those found in examples I.D14 and I.D15.



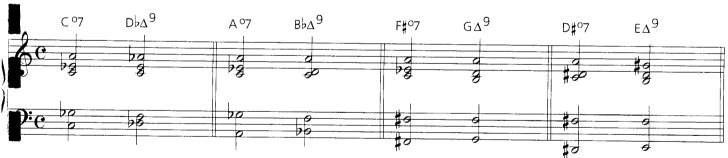


### Example I.D18

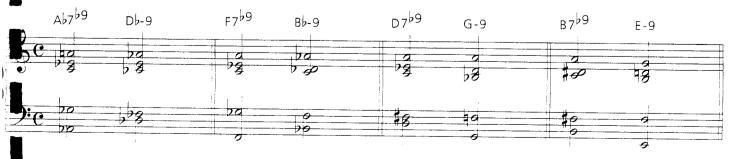


distribution of diminished seventh chords as their basic diminished seventh chords. Since any of the four tones of a diminished seventh chord can function as the root, there are four common resolutions possible for any given diminished seventh chord. In example I.D20, tones of diminished seventh chords become the third, fifth, seventh and lowered ninth of diminant seventh chords, which resolve to the same tonics as their basic diminished counterparts. Remember the other resolution of diminished seventh chords: as embellishments of tonic chords with the same root (illustrated in example I.D11).





### Example I.D20



In order to thoroughly assimilate the harmonic possibilities which have been illustrated up to this point, the following steps should be followed carefully and without omission for each harmonic fragment in each example.

- 1. Play the fragment four times, using the next higher or lower inversion of the upper four voices with each repetition. This process was illustrated in examples I.D1 and I.D3. Begin at a comfortable tempo, no matter how slow. Work gradually toward a tempo of about 100 for the quarter note.
- 2. Play each of the four resulting versions in all keys through the circle of fourths. Playing through all keys by descending or ascending half steps is also useful, and may be an easier starting sequence than the circle of fourths. Begin at a comfortable tempo, no matter how slow. Work gradually toward a tempo of about 100 for the quarter note.
- 3. Repeat steps 1 and 2, but playing the upper four voices in close position.

In view of the considerable practice time necessary for mastering this material, some quick calculations should be encouraging. Each example in the first and third groups (I.A1 - I.A5 and I.A11 - I.A15) can be played in all twelve transpositions at a tempo of only 48 for the quarter note in just two minutes. Each example in the second and fourth groups (I.A6 - I.A10 and I.A16 - I.A20) can be played in all transpositions at the same slow tempo in only four minutes. The same rate applies to examples I.C1 - I.C20. If only twenty to thirty minutes a day is spent on these harmonic exercises, all the "A" examples can be mastered in six to eight weeks with only a slight increase in tempo every few days. If the "A" examples have been mastered well, the "C" examples, combined with all the different bass notes shown in examples I.B1 - I.B5 should not require more than four to six months. A one measure fragment from examples I.D1 - I.D20 can be played in all transpositions at the same slow tempo in just one minute! Anyone who works methodically and patiently with this material should be able to achieve a noticeably greater harmonic facility within six to eight months. As with any acquired skill, each new harmonic sequence should be a little easier to master than the last.

The creation of original harmonic progressions using only the five basic seventh chord types as upper structures above possible bass tones or roots will begin to personalize the assimilation of this material. Only through direct experience can the enormous creative potential of this material be fully grasped. Play all original progressions in all possible close position-and "drop two" voicings in all twelve transpositions. In this way, each single harmonic phrase can be expressed from eight different "points of view" in all keys.

Before applying these basic harmonic structures to broader musical contexts, one final group of harmonic exercises will be extremely useful. The first two of these are derived from what pianist Barry Harris refers to as the "sixth-diminished scale". Jazz musicians from Coleman Hawkins to the most contemporary players often play the major and melodic minor scales with a chromatic passing tone between the fifth and sixth steps. This results in ascending or descending eighth note lines which return to the same note in the next higher or lower octave every four beats: a very practical technique for improvised music which is usually in 4/4 time. By beginning on each step of these scales and playing every other note, a series of alternating major or minor sixth chords and diminished seventh chords is obtained (C6 or C–6 and B<sup>o</sup>7, for example). These groups of chords, as well as the two other groups to follow, are extremely useful for comping, harmonizing melodies and improvising in a "block chord" style. There are many other beautiful and musically interesting sounds which can be developed from these scales. A number of intriguing possibilities will be illustrated shortly.

Example I.E1 shows a four-voice harmonization, with close position and "drop two" voicings, of he C major scale with a chromatic passing tone between the fifth and sixth steps. In this series of lternating major sixth and diminished seventh chords there are no repeated notes in any of the individual lines, since each line is simply moving up the scale from a different starting note in the C6 chord. This aspect makes the series relatively easy to play on the keyboard. It is extremely useful for developing an accompaniment in areas of a tune which consist of only one chord for several measures. Of course, it can also be used to harmonize melodic lines. This particular series an be used not only for tonic sixth chords, but for many other chords which can be stated or implied through the use of a major sixth chord above the bass tone or root. For the series beginping with C6, this might include all the possibilities which were shown in example I.B3, transosed down a minor third (remember that C6 contains the same tones as A–7). Besides A–7, other possibilities include FA9, D9sus, etc. It will be helpful to notice that, in more extended harnonic relationships, the ascending form may be more convincing than the descending form, or ertain areas of the series may sound more convincing than others. This is due to the natural tendencies of chromatic resolution. The tones in the scale which are the most distant from the elative tonal center need to resolve by half step. If the given transposition of the given series vere played as F $\Delta$ 9, for example, the tone G# resolves by half step in either direction, but the tone  ${ t B}$  resolves by half step only in the ascending form. That is why, in this context, the descending orm sounds inappropriate and unconvincing.

### Example I.E1



**Example I.E2** shows a similar harmonization of the C melodic minor scale with the same chroatic passing tone. This results in a series of alternating C–6 and B<sup>o</sup>7 chords. Once again, there e no repeated notes in any of the individual lines. This series is useful for all harmonies shown in example I.B4, transposed down a minor third (remember that C–6 contains the same tones as Ø). As in example I.E1, the application in more extended harmonic relationships may be somewhat restricted, in order to resolve the most chromatically distant tones convincingly.

### Example 1.E2



ample I.E3 shows a similar harmonization of the C diminished seventh scale. This results in a series consisting entirely of diminished seventh chords, with no repeated notes in any of the individual lines. Since this is an eight-tone scale, there is no need for a chromatic passing tone. Once

again, there are no repeated notes in any of the individual lines. This series is useful for all harmonies shown in example I.B5. Since the diminished scale is a symmetrical scale, any area of the series works equally well in either ascending or descending forms in relation to any of these harmonies, as long as there is a convincing resolution to the chord which follows.

### Example I.E3



**Example 1.E4** shows a similar harmonization of the fifth mode of the F melodic minor scale, with a passing tone between the seventh and eighth steps of the given mode. This results in a series of alternating C7 and B<sup>o</sup>7 chords. Once again, there are no repeated notes in any of the individual lines. This series is useful for harmonies shown in example I.B2. As in example I.E1, the application in more extended harmonic relationships may be somewhat restricted, in order to resolve the most chromatically distant tones.

### Example 1.E4



We can now realize the possibility of at least four different techniques for the creative development of harmonic ideas, whether in comping or playing harmonized melodies, in either close position or "drop two" voicings.

- 1. Move the entire voicing up or down one half step, then return to the original voicing. This is known as chromatic shifting or side stepping.
- 2. Move to higher or lower inversions of the basic or upper structure four-note voicings.
- 3. Use alternate upper structure four-note voicings, which give more harmonically extended interpretations of the basic chords.
- 4. Embellish the basic or upper structure voicings through the use of the series of passing diminished seventh relationships, as discussed above in relation to examples I.E1 I.E4.

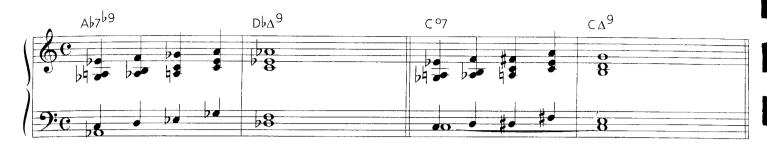
If these techniques are skillfully applied in relation to only the five basic seventh chord types, the resultant possibilities already greatly exceed those currently employed by most jazz pianists in four or five-note textures.

Examples I.E1 - I.E4 should be practiced in both close position and "drop two" in all twelve transpositions through the circle of fourths. Begin at a comfortable tempo, no matter how slow, and work gradually toward a tempo of about 100 for the quarter note.

**Examples I.E5 - I.E8** illustrate some possible applications of the series of chord voicings found in amples I.E1 - I.E4, respectively. Only the symbols of the basic chord, or chords, are given. All rmonic embellishments and nonharmonic tones should be thoroughly analyzed in terms of harmonic function and melodic or linear resolution of dissonance. The more clearly these musical ationships are intellectually understood and aurally perceived, the more easily and naturally a personal application of these techniques will emerge.

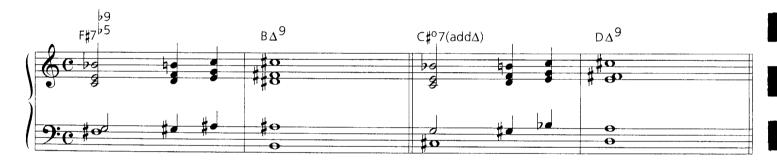


### Example I.E7





### Example 1.E8



xamples 1.F1 and 1.F2 are two accompaniments to a common beloop blues progression in F. The example uses close position upper structure seventh chords above the bass tones or roots. he second example uses four-note "drop two" voicings, most of which do not contain the chord s. In order to thoroughly assimilate the harmonic material in example I.F1, the example ald be learned in three more versions. Each additional version should retain the same four nes in the four uppermost voices, but start with the next higher or lower inversion of the first er structure seventh chord. In this way, the same material can be made to sound four subtly rent ways. Even though one or two may be preferred to the others, many fresh ways of exressing the most common progressions can be discovered through this kind of practice. Making ll changes in one of the lines of the harmony, in order to make it a stronger lead voice, is also xcellent way of discovering new harmonic possibilities. When this new lead voice becomes ne of the lower lines of the harmony, still more possible chord voicings are discovered. Of se, the same four lines of example I.F1 could be played in four different "drop two" versions, In all eight versions could be played in all twelve keys. It may seem like a Herculean task, but one of this type of work is ever a waste of time. It always results in the discovery of ever more s in which the harmonic side of the piano, or music in general, can be used as an expressive or mmunicative tool. In order to thoroughly assimilate the harmonic material in example I.F2, example should also be learned in three more versions. Each additional version should retain same four lines, but start with the next higher or lower inversion of the first voicing. Of ourse, the same four lines could be played in four different close position versions, then all eight ions could be played in all twelve keys.

ź.,

### Example I.F1



### Example I.F2



After working for some time in the manner described above, it should become clear that there is really no difference in comping and playing harmonized melodies. The uppermost voice of a well conceived harmonic accompaniment is a melody in its own right, although it may be simpler than the theme itself. What separates the greatest accompanists from other pianists is their ability to create an accompaniment which has musical interest and integrity of its own, while remaining supportive of the soloist rather than being dictatorial or oppressive. That is why so many great musicians, whether pianists or not, marvel at the creative imagination and musical perfection in the accompaniments of pianists such as Duke Ellington, Thelonious Monk, Hank Jones and Bill Evans. Perhaps Ellington was the greatest accompanist in jazz, up to this point, in terms of his ability to use every texture from single notes to seven or eight-note structures in a manner which perfectly complemented the personality of the soloist. It is certainly no coincidence that he composed for his orchestra with the same aesthetic in mind.

In terms of developing as a jazz musician, it is much more important to be a good accompanist than a good soloist. There are far fewer good accompanists than good soloists, and a good accompanist is always in demand. A truly great soloist knows the value of an exceptional accompanist, and there is no better way to learn about improvising than to accompany a great soloist on a regular basis. Following the musical development of the many pianists who worked for Miles Davis, one of the greatest jazz soloists of all, amply illustrates this point.

**Examples I.G1 - I.G3** illustrate further linear possibilities to be discovered in the major and relodic minor scales with a chromatic passing tone between the fifth and sixth steps. Colors of the type found here can be very effective for introductions, interludes, endings or in any area of a piece where the decoration of a single chord seems appropriate. When developing patterns of this ye it is helpful and instructive to try to play each one through all keys.





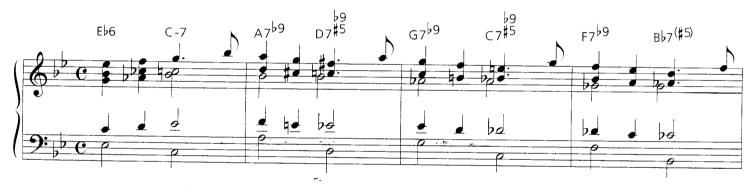


**Examples I.H1** and **I.H2** illustrate the use of the various materials studied in this first chapter in relation to actual pieces of music: excerpts from George Gershwin's *Oh, Bess, Oh, Where's My Bess* and Johnny Mandel's *Close Enough For Love*. The final step in the process of personalizing the vocabulary studied in this chapter is that of finding appropriate uses for it in actual repertoire and improvising situations. Learning to incorporate it into repertoire which is somewhat arranged or preplanned plants the seeds which can gradually develop roots reaching to ever deeper levels of the subconscious. As one begins to discover the rich harmonic potential in basic standard tunes, the newly discovered vocabulary will begin to make itself more easily accessible to the more spontaneous process of improvisation.

### Example I.H1



### Example I.H1





If the materials in this first chapter are practiced attentively and regularly, in the manner described, it will not require more than a few months before certain results should be observable. While playing familiar repertoire, the ears will begin to hear new harmonic possibilities and the hands will become more and more adept at finding the necessary combination of tones. However, the two most important things to be remembered throughout the lifelong study of music are to proceed at a steady pace, without skipping any essential steps, and to be tirelessly patient. As in life, it is far more important to learn to enjoy the journey than to be rushing ahead toward what is always, in any case, only a temporary resting place on an endless creative path. Structured practice is an excellent tool for training the attention and for developing the skill of active listening. It is relatively easy to maintain attention in a performance situation, when uncertainty and fear become our unwitting allies. In structured practice, however, the attention must constantly be brought back to the work at hand. This kind of effort is both necessary and helpful. When the sounds which are being practiced are heard in a more active manner, they are assimilated at a deeper level and may become available for personal creative use within a much shorter time.

This chapter closes with an original composition which makes extensive use of the five basic seventh chord types as upper structures above a variety of possible bass tones or roots. The title, *Vile Trickery*, has two different but related origins. First, it relates to the many unexpected harmonic movements, especially the resolutions of the dominant and diminished chords. Second, it relates to a long and happy association with a wonderful bass player with whom I had the pleasure of working in Akron, Ohio, between 1964 and 1971. His name was Bobby Reeves. Often, after playing a tune in which I had managed to weave a number of deceptive harmonic moves into my solo, ne would approvingly exclaim, "Bill Dobbins! That was some vile trickery!"

In order to understand and assimilate the harmonic vocabulary of this piece, the following steps ire recommended.

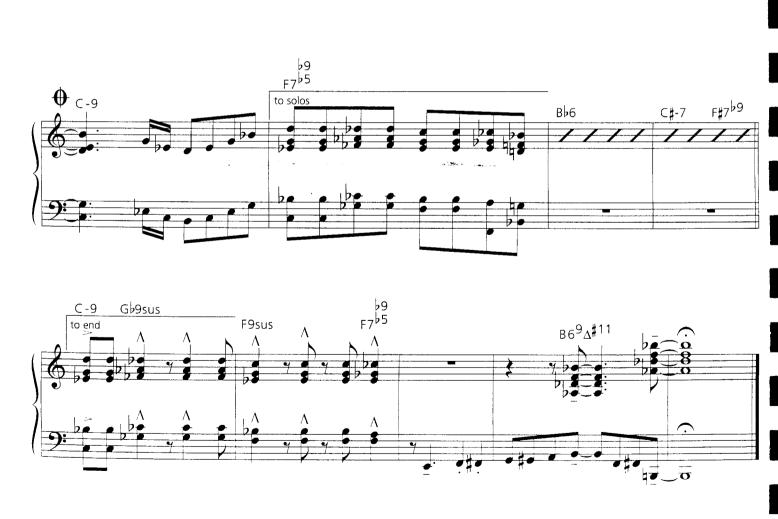
- 1. Locate the dominant or diminished chords throughout the piece and listen carefully to the resolutions. Follow the melodic line of each voice.
- 2. Analyze the harmonic progression. Look for sequential or symmetrical harmonic cycles, II V progressions, etc. Pay particular attention to the root movement in the resolutions of the dominant and diminished chords. Notice the difference in sound and effect between root movement up a fourth or down a fifth, root movement up a half step and root movement down a half step.
- 3. Analyze the harmonic structures which are found in the upper four voices. Notice which type of basic seventh chord structure is used in each case, and how the four tones are related to the bass tone or root. Review the use of these sonorities in the harmonic fragments found in the earlier examples.
- 4. After playing the piece through a few times, try improvising on the harmonic progression. Measure 2 and similar measures throughout the progression may be simplified by improvising on basic tritone dominant sevenths above the original left hand intervals. In measure 2, for example, the right hand may simply improvise on D7 while the left hand plays the line, G, F# above the G# bass tone. The underlying harmonic progression in this composition is relatively simple, but the use of nonharmonic tones and linear movement in the individual voices give the standard progressions a fresh harmonic perspective.
- 5. Use fragments of one or two measures as harmonic exercises, playing them in all keys through the circle of fourths.

## Vile Trickery









A CREATIVE APPROACH TO JAZZ PIANO HARMONY
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### II. Exploring the Altered Seventh Chords

The altered seventh chord types include  $\Delta^{\sharp 5}$  ( $\Delta +$ ),  $\Delta^{\flat 5}$ ,  $7^{\sharp 5}$  (7+),  $7^{\flat 5}$ , 7sus.,  $-\Delta$  and  $^o\Delta$ . The lowered fifth in the  $\Delta^{\flat 5}$  chord is notated as a raised fourth, since this is how most jazz composers notate it in their scores. It functions as the lowered fifth, however, since the unaltered fourth is not a normal member of a major seventh chord. The same chord member is also known as a raised eleventh when it occurs in a higher octave.

Before practicing these chord types it will be helpful to analyze their individual structures in terms of intervals. Two of these chord types are built on augmented triads. One is built on a diminished triad. Two of these chord types have whole steps, enharmonically, between the third and lowered fifth. One has a whole step, enharmonically, between the raised fifth and seventh. Another has a whole step between the suspended fourth and the fifth. These new intervals in the basic structures of the seven chord types will result in a significant number of new shapes as each structure is moved through its three inversions.

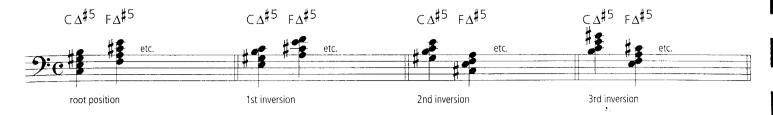
The application of these chord types in actual harmonic situations can enrich the harmonic color and increase the creative potential of the overall harmonic vocabulary. The greatest jazz composers from Duke Ellington and Billy Strayhorn to George Russell and Clare Fischer have used many of the possibilities offered by these structures, as have most jazz pianists from the 1940's to the present. As with the basic seventh chords, however, there are many inversions, spacings and combinations with different bass notes which, even today, are used quite rarely if ever.

In order to thoroughly familiarize the hands and ears with the physical shapes and sounds of hese chord types, they should be practiced in the same manner as the basic seventh chords. **Examples II.A1-II.A7** illustrate a simple practice routine in close position. The right and left hands may practice separately, or the right hand may double the left hand one octave higher as a ariation. Begin at a comfortable tempo, no matter how slow. Work toward the ability to play each chord type in all inversions through the circle of fourths without mistakes at a tempo of about 100 for the quarter note.

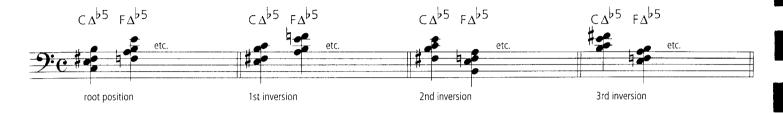


Each close position altered seventh chord voicing should now be played through the circle of furths. **Examples II.A8 - II.A14** illustrate the same type of practice routine which was used for the basic seventh chords in examples I.A6 - I.A10, but now in relation to the altered seventh chords. The right and left hands may practice separately, or the right hand may double the left hand one octave higher as a variation. Begin at a comfortable tempo, no matter how slow. Work toward the ability to play each voicing of each chord type through the circle of fourths without mistakes at a tempo of about 100 for the quarter note.

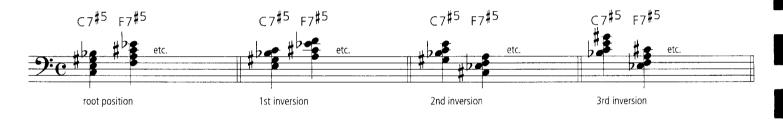
### Example II.A8



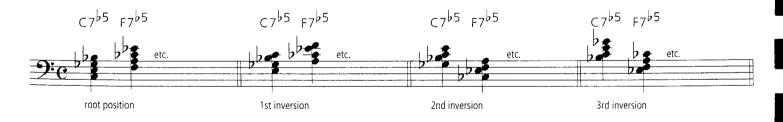
### Example II.A9

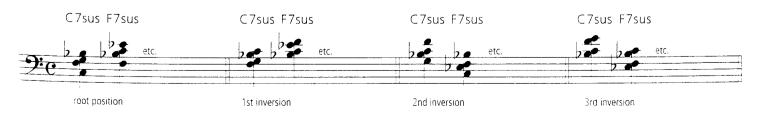


### Example II.A10

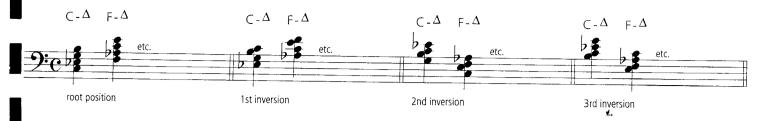


### Example II.11

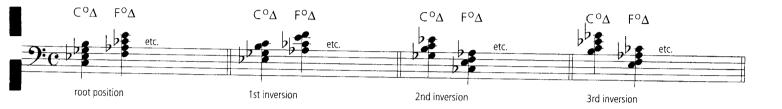




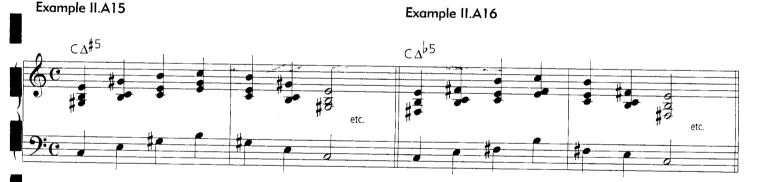
### Example II.A13



### Example II.A14



Now the altered seventh chords can be practiced using the "drop two" voicings. **Examples II.A15**II.A21 illustrate a simple practice routine. It will be useful to pay attention to the structure of each voicing in terms of the intervals between the tones. If the organization of intervals is carefully analyzed, the transposition through the circle of fourths should be easier. Play the upper three notes with the right hand, the lowest with the left thumb or index finger. Begin at a comfortable tempo, no matter how slow. Work toward the ability to play each chord type in all inversions through the circle of fourths without mistakes at a tempo of about 100 for the quarter note.



### Example II.A17



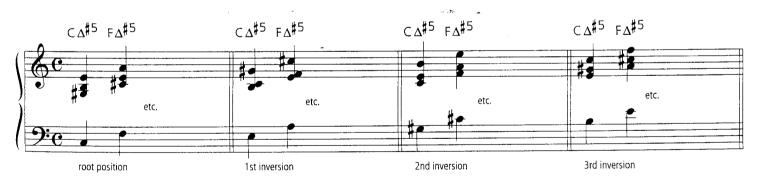
## Example II.A19 Example II.A20 C7sus C-\Delta etc. etc.

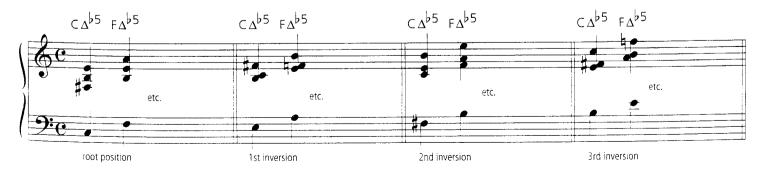
### Example II.A21



Finally, each individual "drop two" voicing of each of the seven chord types should be played through the circle of fourths. **Examples II.A22 - II.A28** illustrate a simple practice routine, as used earlier with the basic seventh chord types. Once again, a clear understanding of the structure of each voicing in terms of intervals will be most helpful. Begin at a comfortable tempo, no matter how slow. Work toward the ability to play each voicing of each chord type through the circle of fourths without mistakes at a tempo of about 100 for the quarter note.

### Example II.A22







Before combining these seven chord types with different bass notes, the simple four-note voicings can be used to create basic harmonic progressions. The basic sequence of subdominant, dominant and tonic is still useful for creating progressions with these new chord types. The diagram introduced in the first chapter can easily be altered to suggest some possible harmonic movements.

Subdominant	Dominant	Tonic
II7+ or II7 <sup>b5</sup>		
VIIºΔ of V		
ΙVΔ+	βII7♭5	
$IV\Delta^{b5}$ (or $bVI\Delta^{b5}$ )	VII°Δ	(bVIΔ+)
IV-Δ	V7sus	$I^{\Delta}$ (or $\flat$ III $\Delta$ +)
$II\Delta + (or \flat VI\Delta +)$	V7 <sup>b5</sup> (or bII7 <sup>b5</sup> )	ΙΔ <sup>b</sup> 5
II_Δ	V7+ (or bII7+)	$I\Delta + (or III\Delta +)$
II_A IV_A PAI_A	♭II7 (+ or ♭5)	IA
	V7 (+ or b5) bVII7 bII7	$I\Delta \ (+ \text{ or } \flat 5)$

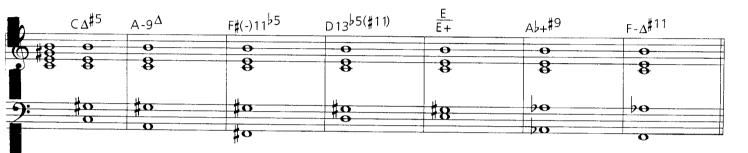
The following steps will be helpful in applying these new chord types to common harmonic usage.

- 1. Remain in either close position or "drop two" throughout the entire progression. In moving from one voicing to the next, retain any common tones and move the remaining tones by the smallest interval possible. If a symmetrical harmonic cycle is being used, however (D–7, F–7, etc.), move all tones in a parallel manner for the duration of the cycle. In each practice session play some progressions in close position and others in "drop two", in order to become equally familiar with both structural types.
- 2. After playing a particular progression in one key, repeat the same progression through the circle of fourths until it returns to the original key.
- 3. Play a particular progression four times, beginning on the next highest inversion of the first chord each time. If the voice leading is consistent, this should result in four different ways of playing the same progression. Repeat each of these four versions through the circle of fourths until the original key returns.
- 4. Try to find melodic phrases from familiar tunes which can be harmonized with these chord types. Transpose these phrases to different keys.

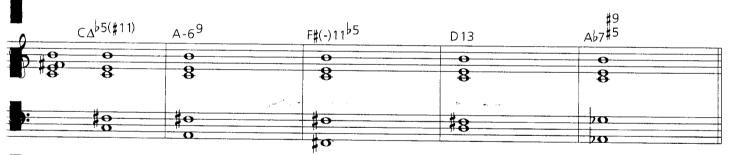
**Examples II.B1 - II.B7** illustrate many colorful harmonies which can be obtained by combining these four-note structures with different bass notes. As an introduction to these new harmonies, the possible functions of each chord type should be determined.  $A-9^{\Delta}$  could be a I chord in A minor or a IV chord in E minor (or major),  $F = 11^{1/5}$  could be a II chord in E minor (or major), etc. Compared to the possible functions of a given chord type have been determined, short harmonic degressions can be developed by adding chords which might precede and/or follow the given chord.  $A-9^{\Delta}$  might be preceded by an E7 chord of some type and/or followed by a B7 chord of the type. Since these new harmonies are more chromatic than those studied in the first chapter, convincing voice leading will be of even greater importance. The more chromatic the music becomes, the more intently one must listen in order to hear where the tones want to go. When see new harmonies have been assimilated more thoroughly as a result of disciplined practice, the hands and ears will begin to connect them more easily and intuitively.

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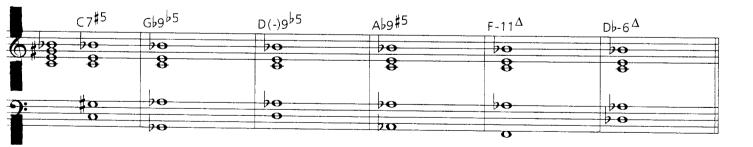
### Example II.B1



### Example II.B2



### xample II.B3



### Example II.B4

Δ	C7 <sup>♭5</sup>	Gb7 <sup>b5</sup>	D9 <sup>#5</sup>	Ab9 <sup>#5</sup>	Db melodic m	ninor G melodic mir	nor
( 6 28		70	70	20	100	70	
1 8	8	8	8	8	•	Ö	
$\langle     \rangle$							
1 9:	20		#Ω	20	22	, #o	
	0	20	110	20		•	

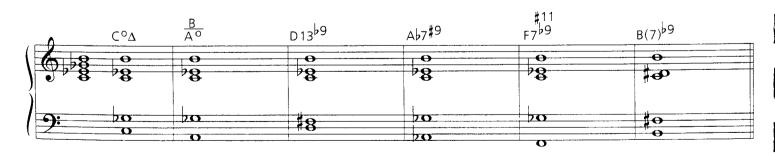
### Example II.B5

C7sus	E♭6 <sup>9</sup>	Α♭6 <sup>9</sup> Δ	Db6Δ <sup>#11</sup>	G-7add4	D7sus 5	A7 <sup>#5</sup> no3
	9 O O	70 0 0	9 <del>0</del> 0 <del>0</del>	70 0 0	90	90
9: 0	- 28	0	90	0	0 0	0

### Example II.B6

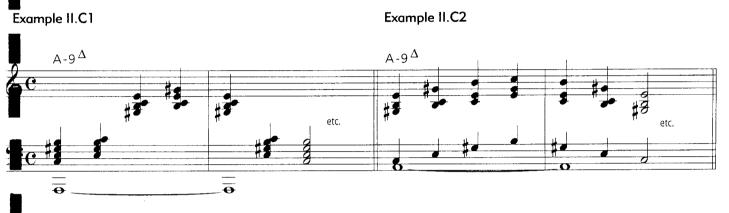
^	$\subset$ - $\Delta$	A-965	F9 <sup>#11</sup>	D13sus 69	B+69	Ab4#9	B+ <sup>59</sup> /E
8	10	0	0	Θ	О	О	0
\ <del>\ \ \ \</del> 8	<b>8</b>	<b>8</b>	-8	8	# <del>o</del>	₽8	ச
			-	e 9	14 Bis		
9:	σ_		0	0			-0
	<b>O</b>	- 0		•	О	20	
			0			•	•

### Example II.B7



xample II.C3

camples II.C1 - II.C4 illustrate the simple practice routines which have been used previously, now in relation to the second chord found in example II.B1:  $A-9^{\Delta}$ . Each chord in examples B1 - II.B7 should be practiced in a similar manner. Since the routine is already well known, it could be possible to work on the harmonic structures in these examples without additional notative following examples may be used as a model from which any of the structures found in amples II.B1 - II.B7 may be practiced. By depending less and less on note reading and more and on the visual and tactile relationship with the keyboard, these and subsequent structures be assimilated much more quickly. Begin at a comfortable tempo, no matter how slow. Work ward the ability to play any given sequence through the circle of fourths without mistakes at a  $\Delta$ 0 of about 100 for the quarter note.



# $A-9^{\Delta} D-9^{\Delta} G-9^{\Delta} C-9^{\Delta}$ $A-9^{\Delta} D-9^{\Delta} G-9^{\Delta}$ $A-9^{\Delta} D-9^{\Delta}$ $A-9^{\Delta} D-9^{\Delta}$

Example II.C4

**Examples II.D1 - II.D8** illustrate a few of the possible progressions which can be derived from the harmonic structures found in examples II.B1 - II.B7. The first four examples use close position voicings. The last four examples use "drop two" voicings.

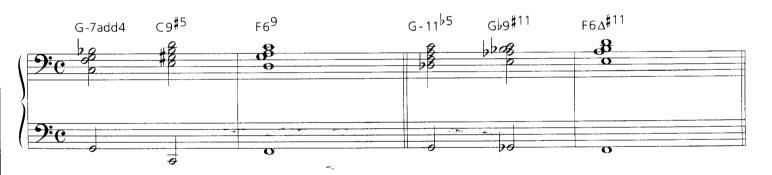
Example II.D1 is based on a II - V - I progression in A minor. In each measure the next lowest inversion of each of the first three voicings is used, showing how the same four lines above the bass line can convey four subtly different harmonic meanings. Example II.D2 and II.D3 illustrate two possible II - V - I progressions in F major. Example II.D4 is based on the harmonic progression of the first four measures of John Coltrane's *Giant Steps*.

### Example II.D1

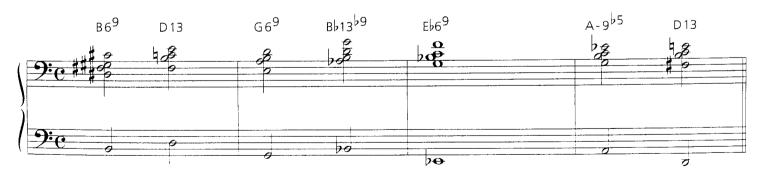


### Example II.D2

### Example II.D3



### Example II.D4



**Example II.D5** illustrates the "drop two" variation of example I.D1. In harmony which is highly bromatic all inversions of the same voicings may not be equally effective. The second voicing in the fourth measure of this example is quite unusual, for example, with the third of the chord a minor ninth above the raised ninth (enharmonically the minor third). The ear must always make the final decision as to whether or not a dissonance is too extreme for a particular harmonic context. It is usually helpful to be aware of which two tones are most responsible for creating a particular dissonance. Sometimes an extreme dissonance can be "softened" by playing one of these we tones more quietly than the other.

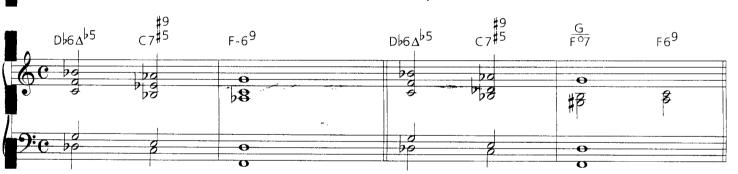
### Example II.D5



camples II.D6 and II.D7 illustrate two more possible variations of II - V - I in F minor and F major, respectively. Notice that the D♭ major chords which begin each of these examples might also be heard as G minor chords with the lowered fifth (tritone) in the bass. The use of the tonic minished chord as an embellishment of the tonic major chord at the end of example II.D7 is a useful and evocative harmonic color.

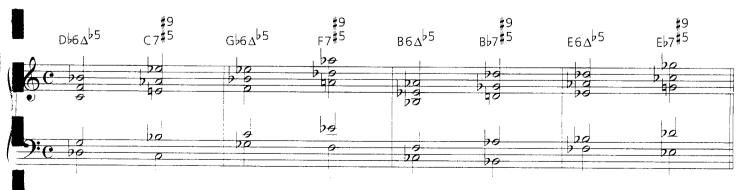
### Example II.D6

### Example II.D7



Example II.D8 illustrates the transposition of a II - V variation (bVI - V) through the circle of farths.

### Example II.D8



Further study of the material in examples II.D1 - II.D8 will help to more easily incorporate some of this vocabulary into actual repertoire and harmonic improvising. Each example may be practiced in all twelve keys. The examples which use close position voicings may be played with "drop two" voicings, and those which use "drop two" voicings may be played with close position voicings. While practicing this material, harmonic structures from the examples in this chapter should be incorporated into actual repertoire and improvising wherever this seems appropriate and comfortable. The more deeply the material is assimilated, the more easily it may be used in spontaneous musical expression and interaction.

**Example II.E1** illustrates the use of harmonic structures from examples II.B1 - II.B7 in a harmonic accompaniment based on the chord progression of Jerome Kern's *Yesterdays*. In order to thoroughly assimilate the harmonic material in this example, the following steps will be helpful.

- 1. Play the example in all twelve keys.
- 2. Play the upper four voices in close position above the given bass voice by playing the top voice one octave lower. Play this version in at least several different keys.
- 3. Find the other three close position versions: start with the next higher or lower close position voicing of the first chord, then follow exactly the same voice leading in each of the four individual lines. Make adjustments in the top voice, if necessary, in order to make it more melodically convincing. Play these versions in at least several different keys.
- 4. Find the three other possible versions of "drop two" voicings: start with the next higher or lower inversion of the first "drop two" voicing in the upper four voices, then follow exactly the same voice leading in each of the four individual lines. Make adjustments in the top voice, if necessary, in order to make it more melodically convincing. Once again, some of the exposed minor ninth intervals may cause some areas to sound less convincing than others. Finding a few voicings which are too dissonant is a small inconvenience, however, in comparison with the many fresh and colorful sounds which will be discovered. Play some of the most interesting phrases from these new versions in at least several different keys.



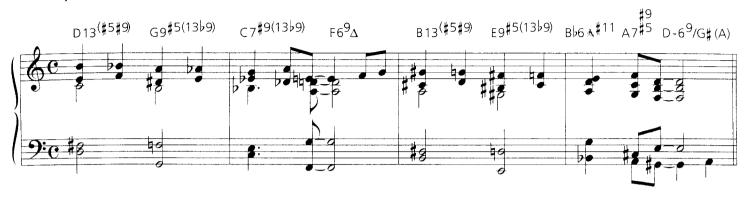
**Examples II.F1 - II.F4** illustrate the use of the harmonic structures from examples II.B1 - II.B7 in passes from standard tunes. Example II.F1 is a version of the first phrase of Duke Ellington's Include To A Kiss. Example II.F2 is a version of the first phrase of Billy Strayhorn's Chelsea Bridge. Example II.F3 is a version of the second phrase of Harold Arlen's Come Rain Or Come inc. Example II.F4 is a version of the first phrase of Richard Rodgers' Spring Is Here. In order to understand and assimilate the harmonic material in these examples, the following steps will be helpful.

Carefully analyze the individual chord members and voice leading in each example.

Play each example in all twelve keys.

3. Find phrases from other standard tunes in which the harmonic structures which have been studied in this chapter can be convincingly used. This is the ultimate test of the assimilation of this material. The ability to successfully apply these harmonic structures to actual repertoire is a sure sign that the material in the examples has been clearly understood.

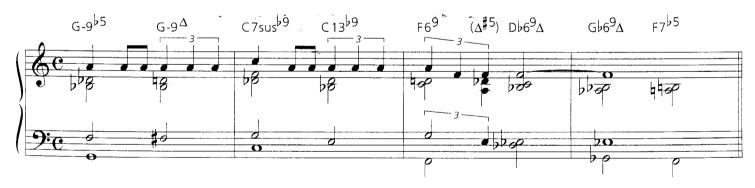
### Example II.F1



### Example II.F2



### Example II.F3



### Example II.F4



This chapter closes with an original composition which uses only the harmonic structures found examples II.B1 - II.B7. The title, *Joyful Noises*, came from the sound and feeling of the piece. In spite of the frequent dissonances, it seems to convey a rather happy and upbeat mood. In order to understand and assimilate the harmonic vocabulary of this piece, the following steps are recommended.

1. Locate the dominant or diminished chords throughout the piece and listen carefully to the resolutions. Follow the melodic line of each voice.

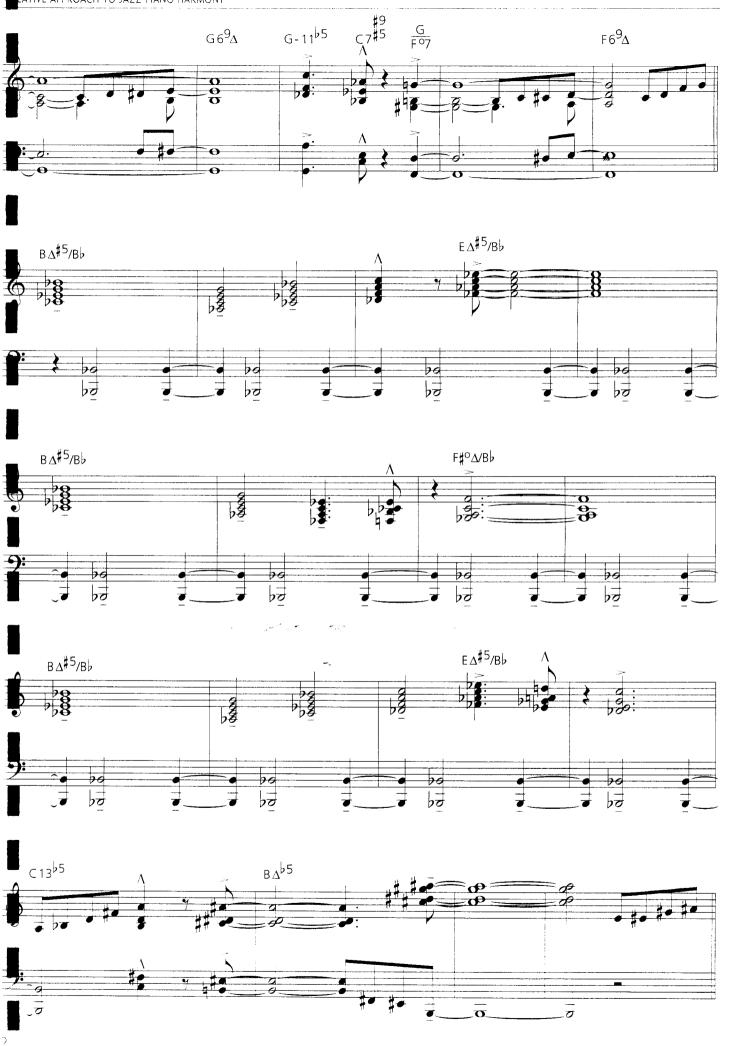
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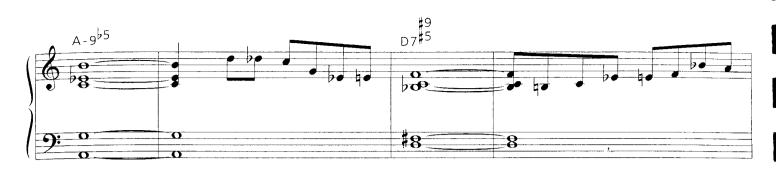
- 2. Analyze the harmonic progression. Look for sequential or symmetrical harmonic cycles, II V progressions, etc. Pay particular attention to the root movement in the resolutions of the dominant and diminished chords. Notice the difference in sound and effect between root movement up a fourth or down a fifth, root movement up a half step, root movement down a half step and other types of root movement.
- 3. Analyze the harmonic structures which are found in the upper four voices. Notice which type of altered seventh chord structure is used in each case, and how the four tones are related to the bass tone or root. Review the use of these sonorities in the harmonic fragments found in the earlier examples.
- After playing the piece through a few times, try improvising on the harmonic progression. Although many passing sonorities are used above a pedal point in the bridge of this piece, the chord symbols indicate only the most important ones. This helps to simplify this section for purposes of improvisation.
- 5. Use fragments of one or two measures as harmonic exercises, playing them in all keys through the circle of fourths.

## Joyful Noises

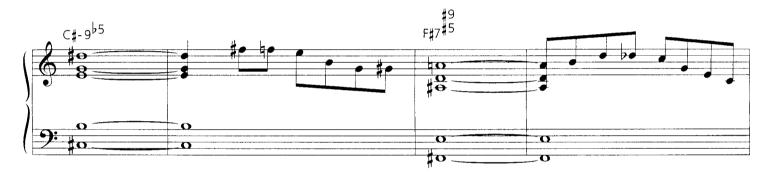


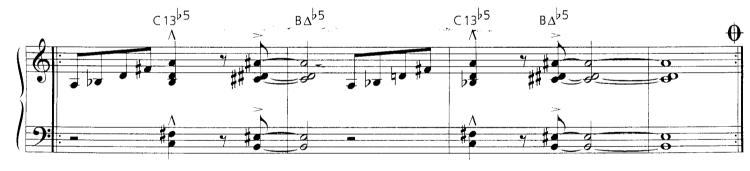
<sup>9 1994</sup> by ADVANCE MUSIC. All rights reserved.











Solos from  $\boxed{\mathbf{A}}$ , then D.C. al Coda (with repeats)

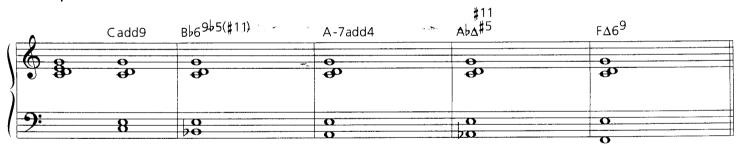


## III. Exploring Other Four-Note Structures

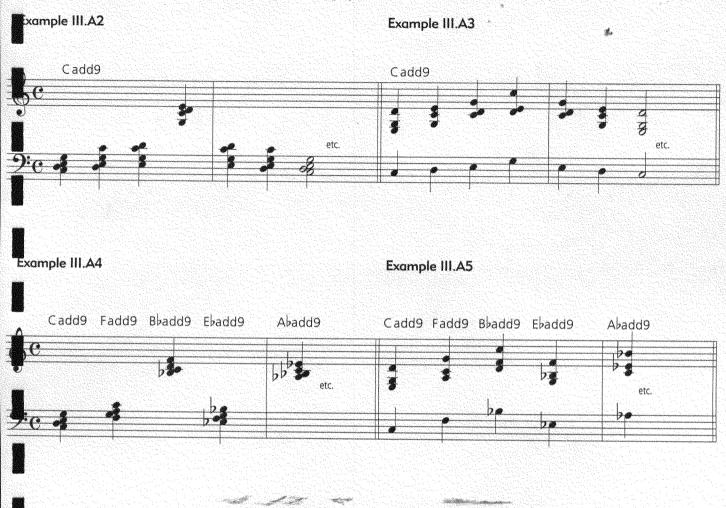
There are many four-note structures besides those which can be arranged as seventh chords. The remaining four-note structures may be divided into two general groups. The first group consists of triads with added fourths or seconds (ninths). The second group consists of four-note structures which contain no conventional triads. Since these structures are, in general, far more dissonant than the ones which have been studied up to this point, their use in actual repertoire is very much a matter of personal taste. It will also require a considerable length of time to familiarize the ears with these sonorities, so that they can be used in a convincing manner. Strong voice leading and clear resolution of dissonance are of the utmost importance when using structures of this type, especially when they are combined with a fifth tone in the bass. Otherwise, they may sound random or even completely out of place.

Since these structures do not contain any complete dominant or diminished seventh chords, it is rather difficult to create simple harmonic progressions without first combining them with various possible bass tones. Some of the harmonic structures in the following examples may sound too dissonant for personal taste. In the case of these structures, using the next higher or lower inversion of the upper four tones will often produce at least one or two structures which are less dissonant. Each structure which sounds as though it has real harmonic potential should be played in all transpositions through the circle of fourths. This will allow the ears and hands to become familiar with its sonority and physical shape on the keyboard.

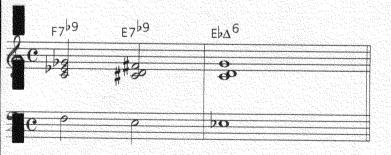
**Example III.A1** illustrates some harmonic possibilities which result from the superimposition of the major triad with an added second (or ninth) above various possible bass tones.



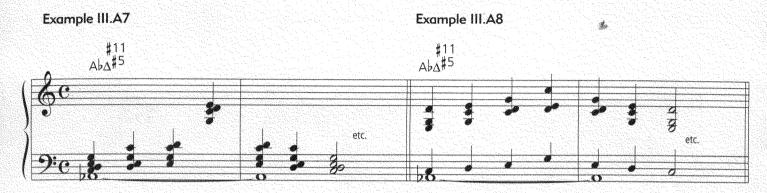
ixample III.A2 - III.A5 illustrate a simple practice routine in relation to the basic four-note common in either close position or "drop two". The pattern in examples III.A2 and III.A3 should explayed in all transpositions through the circle of fourths. Then each structure from these two xamples should be played in all transpositions through the circle of fourths, as illustrated in xamples III.A4 and III.A5. It will be useful to be familiar with the basic four-note voicings, since next can be used quite effectively when playing with a bass player.

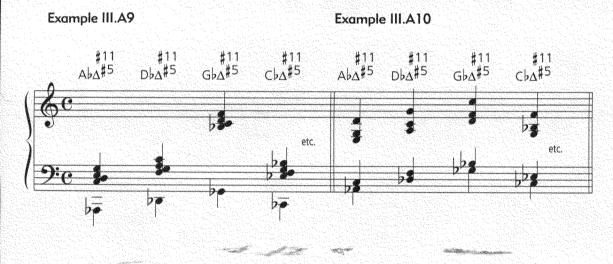


s the ears become more sensitive to different possibilities for the resolution of dissonance, these up-note structures can be used to convey colorful harmonic progressions, even without the adtact of a fifth tone. Consider the "drop two" voicings in the example below. The first and third ructures are from the group which is presently under investigation. The middle structure is the group which will be explored later in this chapter.

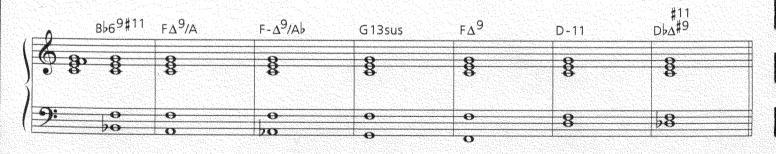


**Examples III.A7-III.A10** illustrate a simple routine for practicing the structures found in example III.A1. The pattern in examples III.A7 and III.A8 should be played in all transpositions through the circle of fourths. Then each structure from these two examples should be played in all transpositions through the circle of fourths, as illustrated in examples III.A9 and III.A10. All the harmonic structures in examples III.A11 through III.A21 can be explored and practiced in the same manner.



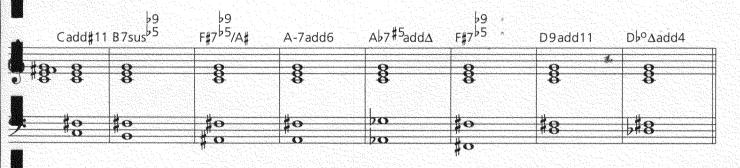


The harmonic structures in **example III.All** are obtained from the superimposition of a major triad with an added fourth above various possible bass tones.



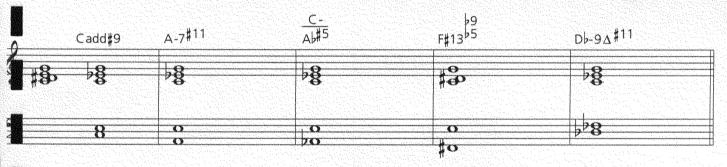
te harmonic structures in **example III.A12** are obtained from the superimposition of a major with an added raised fourth above various possible bass tones.

### Example III.A12

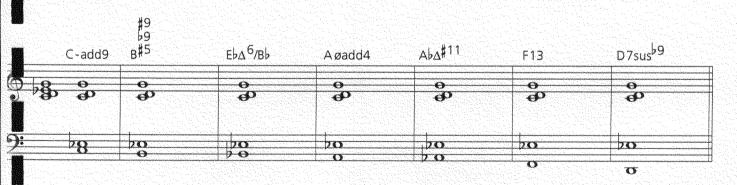


ie harmonic structures in **example III.A13** are obtained from the superimposition of a major with an added raised second (ninth) above various possible bass tones.

### Example III.A13

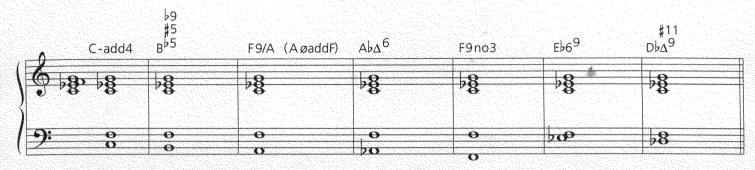


major triad with an added lowered second (minth) is the same as the third inversion of the mished major seventh chord, which was explored in the previous chapter. The harmonic uctures in **example III.A14** are obtained from the superimposition of a minor triad with an second (ninth) above various possible bass tones.



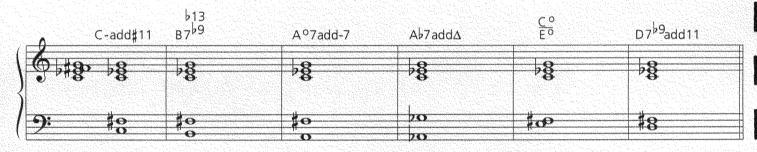
The harmonic structures in **example III.A15** are obtained from the superimposition of a minor triad with an added fourth above various possible bass tones.

### Example III.A15

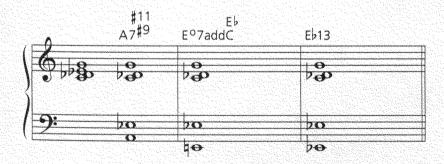


The harmonic structures in **example III.A16** are obtained from the superimposition of a minor triad with an added raised fourth above various possible bass tones.

### Example III.A16

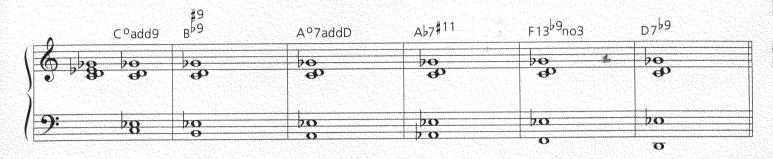


The harmonic structures in **example III.A17** are obtained from the superimposition of a minor triad with an added lowered second (ninth) above various possible bass tones.



The harmonic structures in **example III.A21** are obtained from the superimposition of a diminished triad with an added (major) second above various possible bass tones.

#### Example III.A21



After these structures have been practiced to a relatively thorough degree, they should be used to develop short harmonic progressions. Once again, it will be important to understand the intended function of each harmonic structure in terms of subdominant, dominant and tonic relationships. It will also be helpful to keep the upper four voices in either close position or "drop two" throughout an individual phrase. It is perfectly acceptable to combine these structures with those which were examined in the earlier chapters. The most important thing is to resolve the dissonances as convincingly as possible. The short examples and original composition at the end of this chapter illustrate some possibilities.

Once a short progression has been thoroughly worked out, it should be transposed to at least a few different keys. This type of practice helps to internalize the harmonic vocabulary more quickly, so that it may be incorporated into actual repertoire and, eventually, harmonic improvising. After a certain degree of familiarity with these structures has been achieved, it will be challenging to build short progressions from the four-note structures themselves (as illustrated in example III.A6). "Drop two" voicings are very effective, with the lowest tone being treated as the root or bass note.

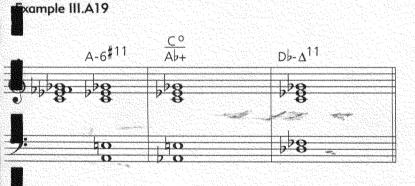
The final group of four-note structures contain no conventional triads or seventh chords. These structures are most effective in combination with a fifth tone as a possible root or bass note, although they can be used independently while playing with a bass player. They have been organized here in an approximate order of least dissonant to most dissonant. Some of the harmonic structures in the following examples may sound too dissonant for personal taste. In the case of these structures, using the next higher or lower inversion of the upper four tones will often produce at least one or two structures which are less dissonant. Each structure which sounds as though it has real harmonic potential should be played in all transpositions through the circle of fourths. This will allow the ears and hands to become familiar with its sonority and physical shape on the keyboard.

In augmented triad with an added perfect fifth is the same as a major seventh chord with a raised fin first inversion. An augmented triad with an added raised fourth is the same as a dominant eventh chord with a raised fifth in first inversion. An augmented triad with an added perfect purth is the same as a minor major seventh chord in second inversion. An augmented triad with a lided raised second (ninth) is the same as a major seventh chord with a raised fifth in second inversion. An augmented triad with an added second (ninth) is the same as a dominant seventh with a raised fifth in second inversion. An Augmented triad with an added lowered second in the same as a minor major seventh chord in third inversion. All these four-note structures have already been explored in the previous chapter.

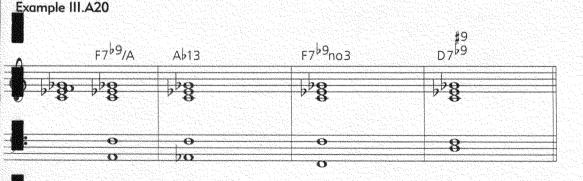
he harmonic structures in example III.A18 are obtained from the superimposition of a diminhed triad with an added lowered second above various possible bass tones. 1

# A°7addDb Ab7add4 F7<sup>b9</sup>(add5) C7alt./E

harmonic structures in **example III.A19** are obtained from the superimposition of a dimintriad with an added lowered fourth above various possible bass tones.

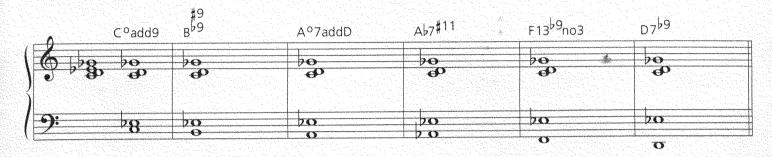


he harmonic structures in **example III.A20** are obtained from the superimposition of a diminhal triad with an added perfect fourth above various possible bass tones.



The harmonic structures in **example III.A21** are obtained from the superimposition of a diminished triad with an added (major) second above various possible bass tones.

#### Example III.A21



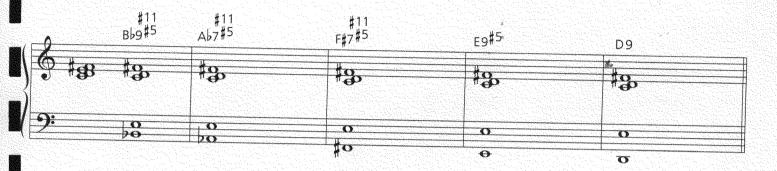
After these structures have been practiced to a relatively thorough degree, they should be used to develop short harmonic progressions. Once again, it will be important to understand the intended function of each harmonic structure in terms of subdominant, dominant and tonic relationships. It will also be helpful to keep the upper four voices in either close position or "drop two" throughout an individual phrase. It is perfectly acceptable to combine these structures with those which were examined in the earlier chapters. The most important thing is to resolve the dissonances as convincingly as possible. The short examples and original composition at the end of this chapter illustrate some possibilities.

Once a short progression has been thoroughly worked out, it should be transposed to at least a few different keys. This type of practice helps to internalize the harmonic vocabulary more quickly, so that it may be incorporated into actual repertoire and, eventually, harmonic improvising. After a certain degree of familiarity with these structures has been achieved, it will be challenging to build short progressions from the four-note structures themselves (as illustrated in example III.A6). "Drop two" voicings are very effective, with the lowest tone being treated as the root or bass note.

The final group of four-note structures contain no conventional triads or seventh chords. These structures are most effective in combination with a fifth tone as a possible root or bass note, although they can be used independently while playing with a bass player. They have been organized here in an approximate order of least dissonant to most dissonant. Some of the harmonic structures in the following examples may sound too dissonant for personal taste. In the case of these structures, using the next higher or lower inversion of the upper four tones will often produce at least one or two structures which are less dissonant. Each structure which sounds as though it has real harmonic potential should be played in all transpositions through the circle of fourths. This will allow the ears and hands to become familiar with its sonority and physical shape on the keyboard.

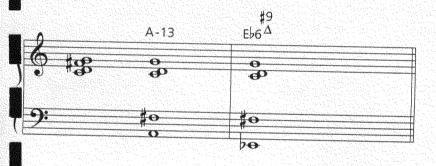
The close position structure in **example III.B1** consists of three adjacent whole steps. All subsequent structures contain at least one half step.

#### Example III.B1



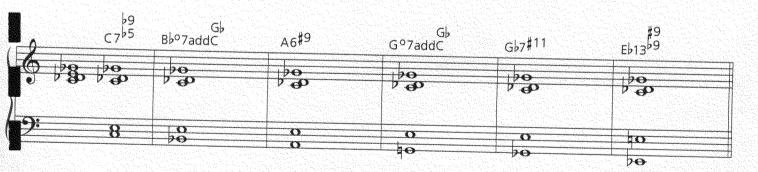
The close position structure in **example III.B2** contains, as adjacent intervals from bottom to top, a whole step, a major third and a half step. A similar structure with a half step, a major third and a whole step (C, Db, F, G) is the same as  $Db\Delta^{b5}$  in third inversion. This four-note structure has already been explored in the previous chapter.

# Example III.B2



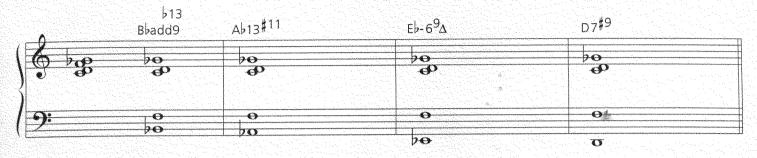
The close position structure in **example III.B3** contains, as adjacent intervals from bottom to top, a half step, a minor third and a whole step.

#### Example III.B3



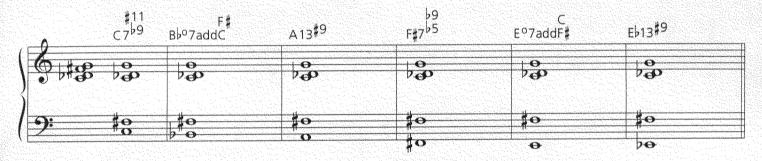
e close position structure in **example III.B4** contains, as adjacent intervals from bottom to top, a whole step, a minor third and a half step.

#### Example III.B4



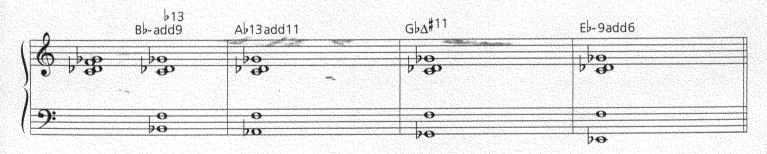
The close position structure in **example III.B5** contains, as adjacent intervals from bottom to top, a half step, a perfect fourth and a half step.

# Example III.B5



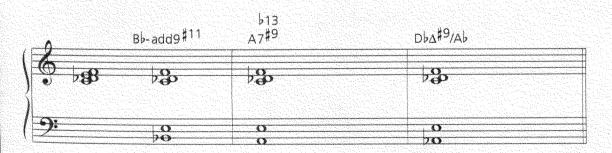
The close position structure in **example III.B6** contains, as adjacent intervals from bottom to top, a half step, a major third and a half step.

#### Example III.B6



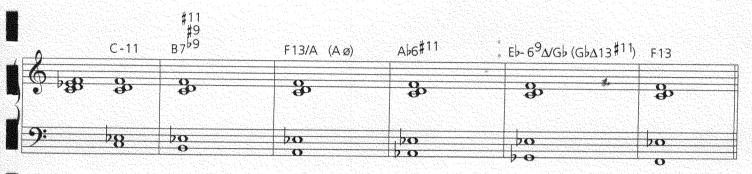
The close position structure in **example III.B7** contains, as adjacent intervals from bottom to top, a half step, a minor third and a half step.

#### Example III.B7



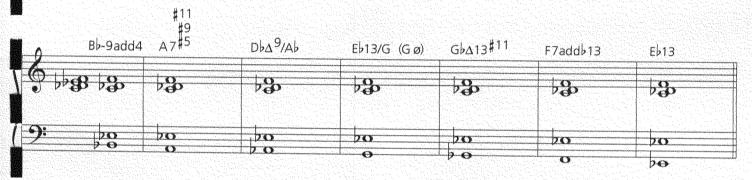
The close position structure in example III.B8 contains, as adjacent intervals from bottom to top, a whole step, a half step and a whole step.

#### Example III.B8



The close position structure in **example III.B9** contains, as adjacent intervals from bottom to top, half step and two whole steps.

#### Example III.B9



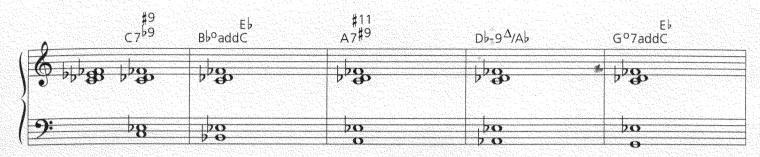
he close position structure in **example III.B10** contains, as adjacent intervals from bottom to top, two whole steps and a half step.

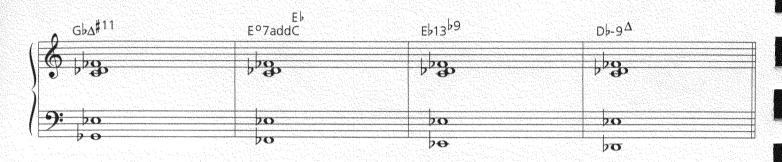
#### Example III.B10

<u> </u>	F6 <sup>A</sup> /C	B <sub>1</sub> Δ <sub>3</sub>	D-9/A	F-6 <sup>Δ</sup> /Ab	G13sus	F6 <sup>Δ</sup>	E7sus <sup>#5</sup>	D-9
9 33	₽	9	3	3	8	8		
<u>Z-</u>	-8	18						

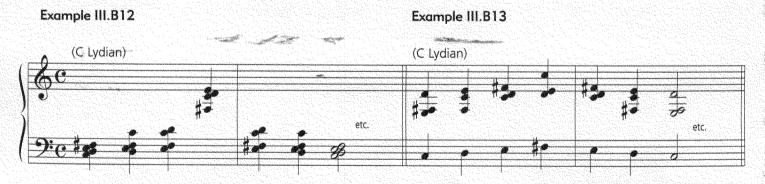
The close position structure in **example III.B11** contains, as adjacent intervals from bottom to top, a half step, a whole step and a half step.

# Example III.B11



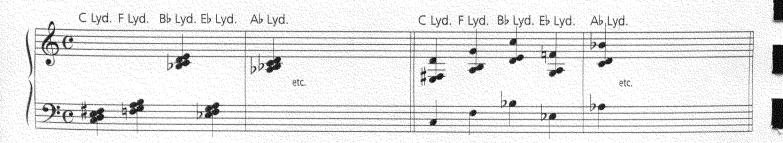


**Examples III.B12 - III.B15** illustrate a simple practice routine in relation to the basic four-note voicings in either close position or "drop two". The pattern in examples III.B12 and III.B13 should be played in all transpositions through the circle of fourths. Then each structure from these two examples should be played in all transpositions through the circle of fourths, as illustrated in examples III.B14 and III.B15. It will be useful to be familiar with the basic four-note voicings, since they can be used effectively when playing with a bass player.

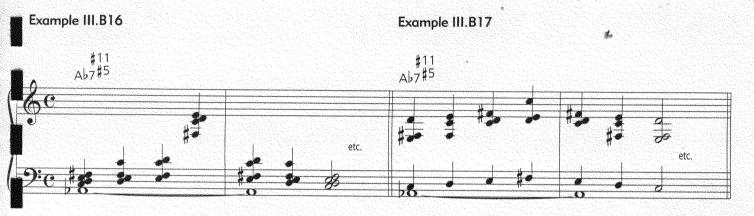


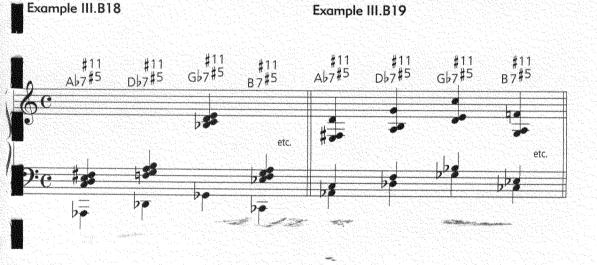
Example III.B14

Example III.B15



**Examples III.B16 - III.B19** illustrate a simple routine for practicing the structures found in ample III.B1. The pattern in examples III.B16 and III.B17 should be played in all transpositions rough the circle of fourths. Then each structure from these two examples should be played in all transpositions through the circle of fourths, as illustrated in examples III.B18 and III.B19. All be harmonic structures in examples III.B2 through III.B11 can be explored and practiced in the me manner.





After these structures have been practiced to a relatively thorough degree, they should be used to deelop short harmonic progressions. Once again, it will be important to understand the intended function of each harmonic structure in terms of subdominant, dominant and tonic relationships. It will also be helpful to keep the upper four voices in either close position or "drop two" throughan individual phrase. It is perfectly acceptable to combine these structures with those which were examined in the earlier chapters. The most important thing is to resolve the dissonances as vincingly as possible. Once a short progression has been thoroughly worked out, it should be approached to at least a few different keys.

1

**Example III.C1** illustrates the use of the harmonic structures from this chapter in a harmonic accompaniment for a blues in F. In order to thoroughly assimilate the harmonic material in this example, the following steps will be helpful.

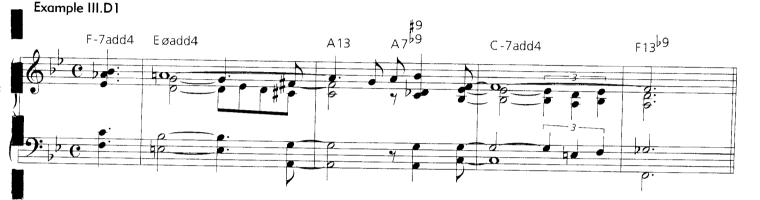
- 1. Play the example in all twelve keys.
- 2. Find the other inversions of these "drop two" voicings and compare the sounds. Try to use some of these other inversions with the same chord progression. If the use of the same four lines in the upper voices results in sounds which seem too dissonant or melodically unconvincing, make whatever changes seem appropriate.
- 3. Play the upper four voices of the example in close position. Find the other inversions of these close position voicings and compare the sounds. Try to use some of these other inversions with the same chord progression. If the use of the same four lines in the upper voices results in sounds which seem too dissonant or melodically unconvincing, make whatever changes seem appropriate.
- 4. Try using these harmonic structures in an accompaniment based on chord progressions which contain only dominant seventh chords, such as the bridge of *I've Got Rhythm* or the first half of *Sweet Georgia Brown*.

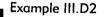
#### Example III.C1



**Examples III.D1 - III.D3** illustrate the use of the harmonic structures from this chapter in hrases from standard tunes. Example III.D1 is a version of the first phrase of *Stella By Starlight*, y Washington and Young. Example III.D2 is a version of the first four measures of *Gone With The Wind*, by Magidson and Wrubel. Example III.D3 is a version of the first four measures of *over Man*, by Ram Ramirez. In order to understand and assimilate the harmonic material in these examples, the following steps will be helpful.

- 1. Carefully analyze the individual chord members and voice leading in each example.
- 2. Play each example in all twelve keys.
- 3. Find phrases from other standard tunes in which the harmonic structures which have been studied in this chapter can be convincingly used.









concluding this investigation of four-note harmonic structures and their combination with arious bass notes, it should be pointed out that only close position and "drop two" voicings have a considered. Although these are, perhaps, the most immediately useful and adaptable, there between nine and thirteen other voicings which are available for consideration. The last four re of practical use only for pianists whose hands have a fairly wide reach. All fifteen voicings of

CΔ with the seventh in the highest voice are shown in **example III.E1**. Three additional inversions can be derived from each of these voicings. All the basic and altered seventh chords which were examined in the first two chapters can be played in all these voicings. The four-note structures which were examined in this chapter can be played in voicings corresponding to at least the first eleven structures of example III.E1. There remain, then, many further possibilities to be derived from these same four-note structures.

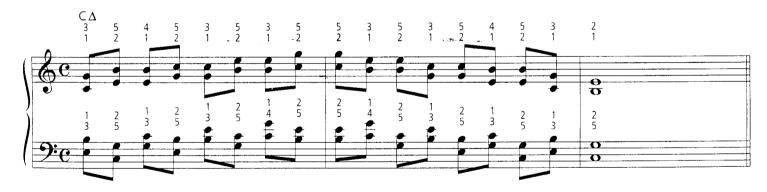
# Example III.E1

	drop 2	drop 3	drop 4	drop 2 and3	drop 2 and 4	drop 3 and 4	drop 2, 3 and 4
168	0	8	8	О	0	8	0 -
1 8	8	0	<b>8</b>	•	0		
0	0			0	0		
( 2		0	0	Ο	0	8	8

etc.						
( 6 0	•	8	8	О	0	•
• •	•			σ	•	σ
9: 0	0	0		0		0
0		•	<del>•</del>	0	•	<del>•</del>

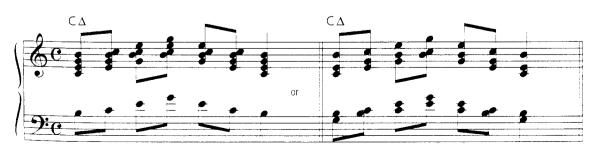
There are also other methods of practicing these four-note structures which are quite useful for general performing and improvising situations. Two of these are illustrated in **examples III.E2** and **III.E3**.

#### Example III.E2



(the highest tone is doubled, as in "locked hand" style)

#### Example III.E3



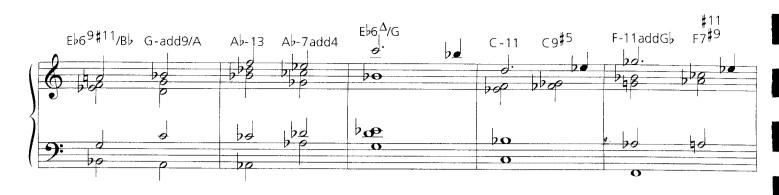
CREATIVE ATTROACT TO JAZZ PIANO HARMONY

# Listening Within

Bill Dobbins



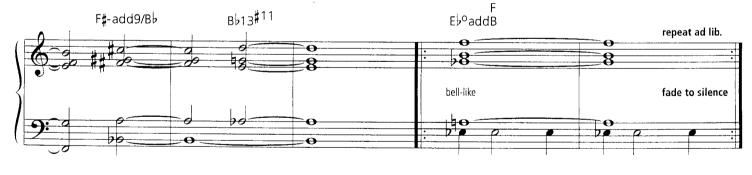
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Solos on the form, then D.C. al Coda





This chapter closes with an original composition which uses the harmonic structures which have been studied in this chapter. The title, *Listening Within*, was suggested by the contemplative mood and the unhurried manner in which the dissonances are resolved. The piece seemed almost to compose itself, as listening for the resolution of each dissonance also led to the next step in the musical development.

ECKERTIVE APPROACH TO JAZZ PIANO HARMONY

In order to understand and assimilate the harmonic vocabulary of this piece, the following steps

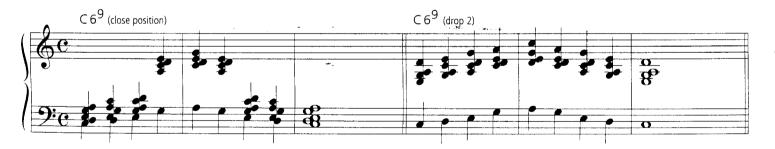
- 1. Locate the dominant, diminished and augmented chords throughout the piece and listen carefully to the resolutions. Follow the melodic line of each voice.
- 2. Analyze the harmonic progression. Look for sequential or symmetrical harmonic cycles, II V progressions, etc. Pay particular attention to the root movement in the resolutions of the dominant and diminished chords. Notice the difference in sound and effect between root movement up a fourth or down a fifth, root movement up a half step, root movement down a half step and other types of root movement.
- 3. Analyze the harmonic structures which are found in the upper four voices. Notice whether or not a triad of some type is included, and how the four tones are related to the bass tone or root. Review the use of these sonorities in the harmonic fragments found in examples III.C1 and III.D1 III.D3.
- 4. After playing the piece through a few times, try improvising on the harmonic progression. Try to limit the left hand accompaniment to the two lowest lines of the arrangement, including the roots or bass notes. The right hand can include the other essential chord tones in the improvised melodic line. This helps to simplify the piece, for purposes of improvisation, until a more thorough grasp of the harmonic vocabulary has been achieved.
- 5. Use fragments of one or two measures as harmonic exercises, playing them in all keys through the circle of fourths.
- 6. Find the other inversions of the "drop two" voicings in the upper four voices and compare the sounds.
- 7. Find the four possible close position voicings of the upper four voices, and compare the sounds while playing them above the given bass note.

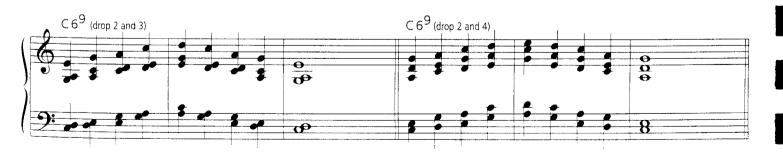
# IV. Exploring Larger and Smaller Structures

Although four-note voicings provide a near perfect balance of harmonic potential and relative ease of technical manipulation, larger and smaller structures can be also be extremely effective in a wide variety of musical contexts. This study will begin with an exploration of five-note voicings. Then a return to four-note voicings will illustrate how most well conceived four-note harmonic textures already contain four possible three-note versions of the same material. Finally, three and four-note voicings will be combined in various ways in order to develop larger harmonic structures of six, seven or eight notes.

Five-note voicings are most easily developed from pentatonic scales. Pentatonic scales are of particular interest, since they have properties which are common to both scales and chords. When the tones C, D, E, G, A and C are played in succession, the leaps from E to G and from A to C suggest a C6 arpeggio, while the stepwise motion between the other tones suggests a scale.

Just as each close position four-note voicing has a root position structure and three inversions, each close position five-note voicing has a root position structure and four inversions. With the addition of a fifth note, however, the number of possible voicings of the same basic structure increases considerably. Whereas the most commonly used voicings of four-note structures are close position and "drop two", there are at least four commonly used voicings of five-note structures: close position, drop two, drop two and three, and drop two and four. **Example IV.A1** illustrates the root position structure and four inversions, derived from the tones C, D, E, G and A, in all four arrangements: close position, drop two, drop two and three, and drop two and four.





**Examples IV.A2 - IV.A39** illustrate all possible five-note structures. As in earlier chapters, the only structures which have not been included are those which contain two or more adjacent half teps (C, C#, D, for example). Although Duke Ellington and Thelonious Monk sometimes used harmonic structures with two or more adjacent half steps, these structures usually functioned as ploristic blocks of sound rather than as chords in which each tone is involved in linear motion om one chord to the next. Such nonlinear uses of chords would constitute a separate study in itself. Interested pianists, however, should begin by searching for examples from the recorded iano solos and comping of Ellington and Monk. Studying these examples within their actual musical context is the only way in which to arrive at a meaningful understanding of the actual function and creative potential of such vocabulary.

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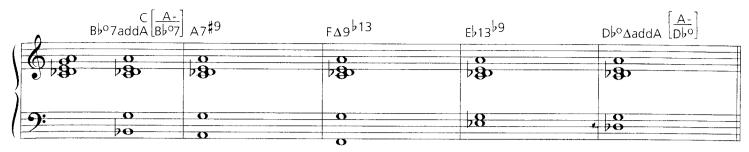
ach root position structure in examples IV.A2 - IV.A39 is given first in close position. This is followed by a series of "drop two" voicings which illustrate different bass notes with which a particular five-note structure can be combined. In some examples the "drop two" voicing of the liginal root position structure is not the most convincing in actual harmonic practice. In these cases a different inversion of the "drop two" voicing is shown in parentheses or is introduced inmediately following the close position structure.

In order to familiarize the ears with these sounds, begin by playing each close position structure frough the four possible inversions, as illustrated in example IV.A1. Then repeat the same procere with the other three types of voicings as shown in example IV.A1: drop two, drop two and three, and drop two and four. It is not necessary to try to transpose these structures immediately. It listen to the sounds. Listen first in a general way, then try to notice particular intervals which characterize a particular structure, which tones create the strongest dissonance in a particular structure and different ways in which these dissonances might be resolved. Try out some of these rolutions, being guided only by your ear. Try playing only the tone to which the dissonance wants to resolve, then try to find where the other tones might go. Retaining many of the original tones may result in simply a more consonant variation of the original structure. Moving more of original tones will result in a stronger feeling of actual harmonic motion.

#### Example IV.A2

<u> </u>	C 6 <sup>9</sup>	#9 #9 B7sus#5	в 69∆#11	A-7add4	F6 <sup>9</sup> Δ	D9 sus
	<b>8</b> b	80	8	80	80	80
9:	0	0	0	0	0	0 0

C-6 <sup>9</sup> B7 <sup>#5</sup>	Εb6 Δ#11/Bb	A øadd4	F13	D7sus <sup>59</sup>
\$ 9 9 9 \$ 9	80	8	90	90
0 0	0	0	0	0



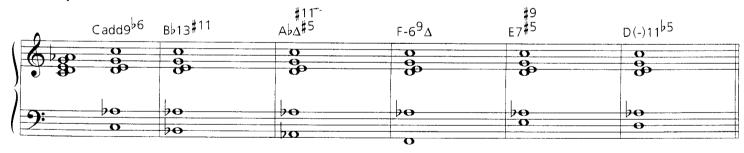
#### Example IV.A5



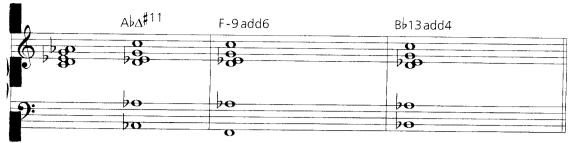
# Example IV.A6



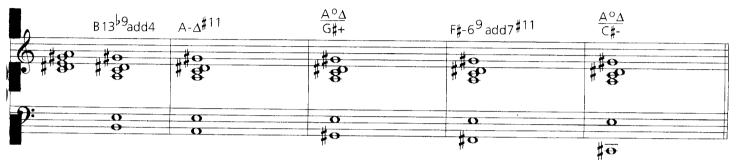
#### Example IV.A7



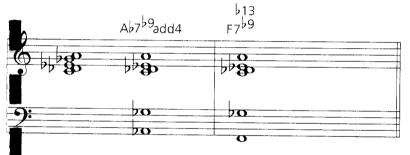




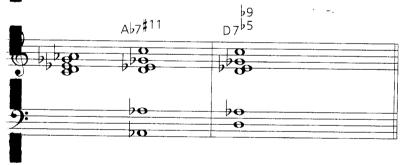
# Example IV.A10



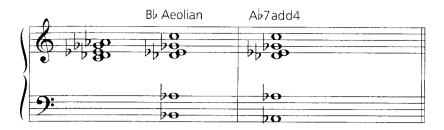
# Example IV.A11



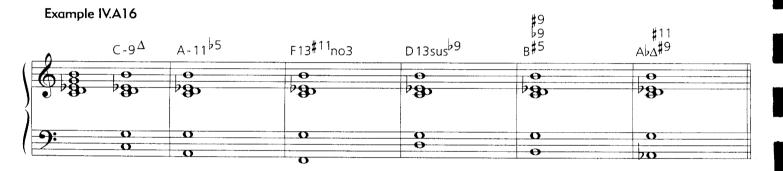
# Example IV.A12





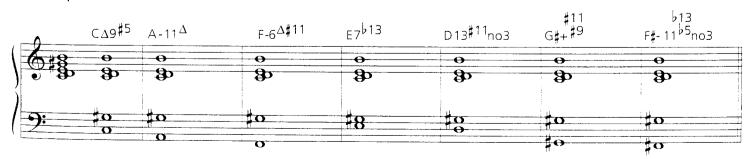


Example	e IV.A15				#11	b13
	C Δ <sup>9</sup>	A-11	F6 <sup>9</sup> Δ <sup>#11</sup> no3	D13sus	Ab <u>A</u> #5	∳9 F#7sus <sup>♭5</sup>
	<b>8</b> 0	80	90 80	<b>8</b>	e 8)	9b
9:	0	0	0	0	Ο	0
\			O		120	‡0

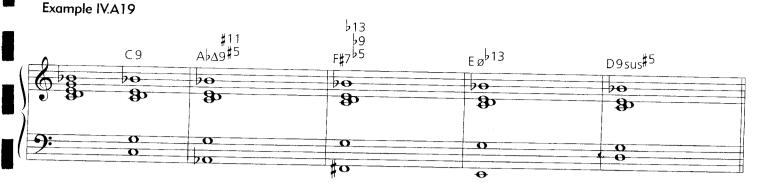


# Example IV.A17

	CΔ <sup>#9</sup>	69 B <sup>#5</sup> add4	A-9 <sup>#11</sup>	Ь13 ДЬД#9	,5 F#13sus ,5
	— e ∦&⊳	#80	\$80	o   #85	80
9:	<u> </u>	0	0		0
		0	0	20	ţo.

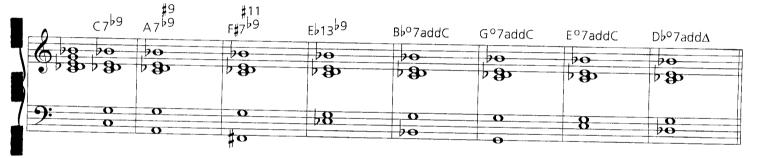




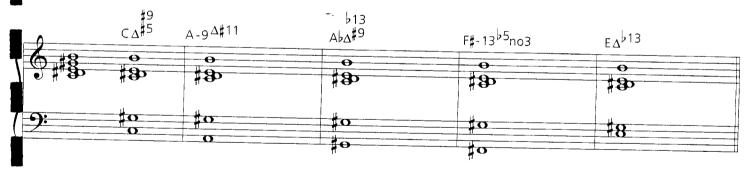


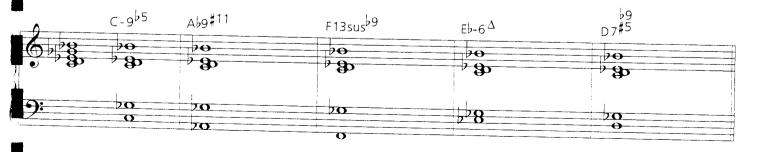
( <b>Q</b>	C-9	A-11 <sup>5</sup>	Ab <u>19</u> #11	F13sus	Eb6 $^{\Delta}$	b9 D7sus <sup>#5</sup>
	<b>%</b>	) <b>8</b> 0	90	80	90	90
9:	0	0	0	0	<b></b>	0
				O		

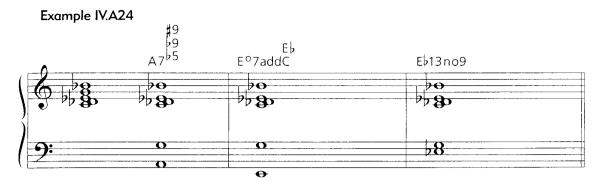
# Example IV.A21

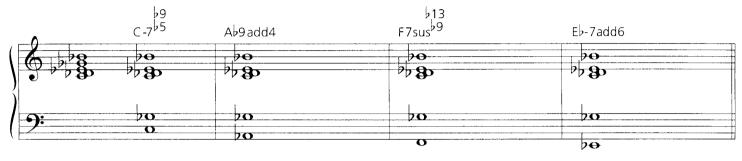


#### Example IV.A22





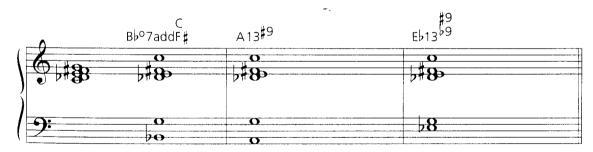


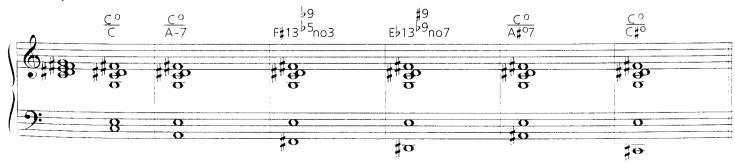


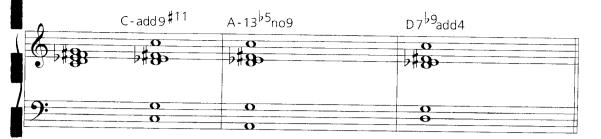
# Example IV.A26

0	C sus <sup>b9</sup> add3	Bb-69#11	G 13sus <sup>b 9</sup>	#11 Db4 <sup>#9</sup>
\$ 183	-8-		<b>\}</b>	<b>\}</b>
9:	8	9	8	
~		70	0	

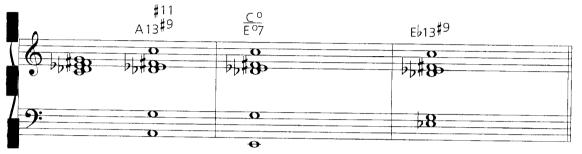
# Example IV.A27



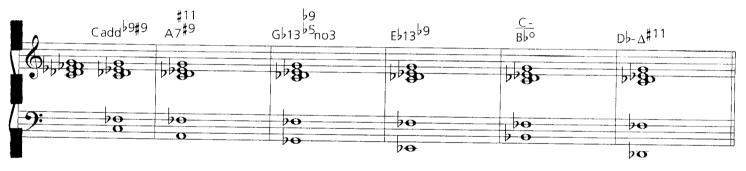




# Example IV.A30



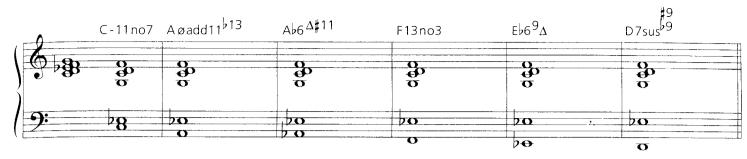
# Example IV.A31

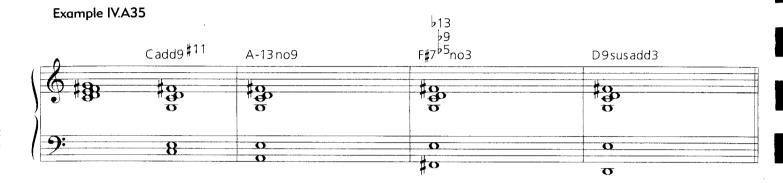


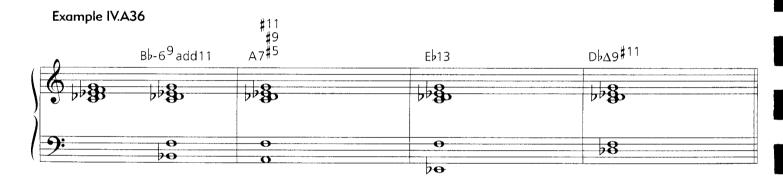
# Example IV.A32

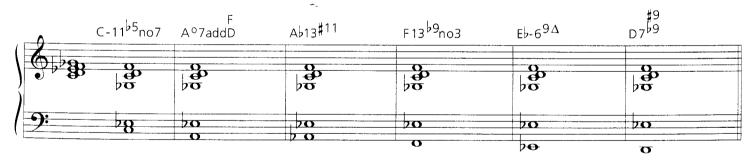


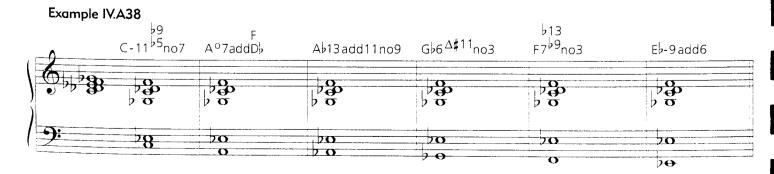


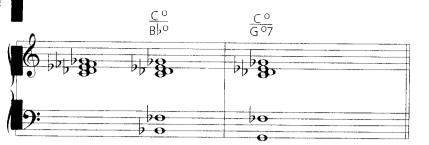












In order to begin to familiarize the hands with the many possible locations of these sounds on the myboard, the following steps are recommended.

- 1. Practice transposing the possible inversions of a particular voicing through the circle of fourths. Retain the same voicing type through all keys (close position, drop two, drop two and three, or drop two and four).
- 2. Repeat step 1, but add a sixth tone in the bass, as illustrated in example IV.A40. Practice only those structures which seem particularly attractive for actual use in playing situations.
- 3. Play any interesting six-note structure through the circle of fourths, as illustrated in example IV.A41.

#### Example IV.A40



#### Example IV.A41

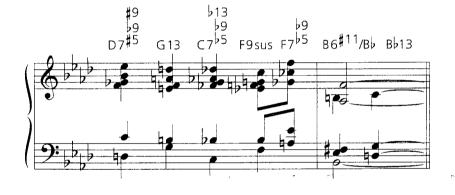


In addition to the practice steps recommended above, the creation of short harmonic progressions from the structures found in examples IV.A2 - IV.A39 will be helpful in order to integrate these structures into actual playing situations. These short harmonic porgressions can then be played in different keys while maintaining exactly the same lines in each voice of the harmonic texture.

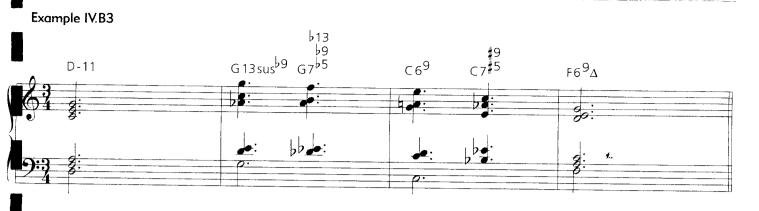
**Examples IV.B1 - IV.B4** should provide additional help in applying these harmonic structures to repertoire. Example IV.B1 is a version of the first four measures of *Sophisticated Lady*, by Duke Ellington. Example IV.B2 is a version of the last phrase of *Embraceable You*, by George Gershwin. Example IV.B3 is a version of the first phrase of *Alice In Wonderland*, by Fain and Hilliard. Example IV.B4 is an accompaniment based on the first eight measures of *All The Things You Are*, by Jerome Kern. The particular types of voicings and voice leading should be carefully analyzed, paying particular attention to the resolution of dissonance. Other voicing types should be tried, while retaining the same lines in each voice of the harmonic texture (drop two and three instead of drop two, for example). These phrases can then be transposed into other keys.

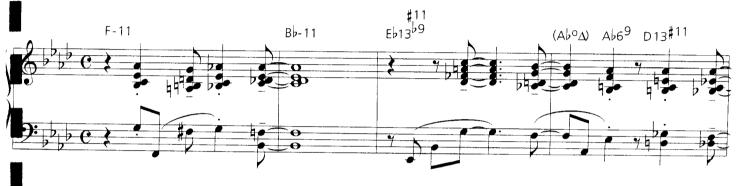
#### Example IV.B1













The original composition, *Song For Daralene*, makes use of some of the combinations of fivenote structures and bass notes from examples IV.A2 - IV.A39. Some passing harmonies, however, should not really be analyzed as functional chords. They are actually "nonharmonic structures" which resolve to the functional chord, just as nonharmonic tones do in a purely melodic sense. The opening structure of the piece is an example of this type of sound. Although it implies a D13 above Db in the bass, its main purpose is simply to create tension against the bass note. The tension resolves immediately to the functional chord: Db13.

The melody, harmony and form of this piece should be carefully analyzed. In the melodic analysis motific development, guide tone lines and resolution of chromatic or dissonant tones in the melody should be noted. In the harmonic analysis the different types of root movement, the harmonic function of individual chords (subdominant, dominant or tonic), voice leading, resolution of dissonance and the use of passing "nonharmonic structures" should be noted. In the phrase analysis the lengths of the phrases and the phrases which contain similar or contrasting material should be noted.

After playing and analyzing the piece, try improvising on the harmonic progression. Allow the original melody to suggest important target notes for the improvised lines. Try to use simple two or three-note structures in the left hand (roots and sevenths or roots, thirds and sevenths, for example). Allow the improvised melodic line to state much of the harmonic content instead of doubling most of the notes in thick left hand voicings.

Finally, try to play some of the phrases of the piece in different keys. In addition, look for places in actual repertoire where similar harmonic structures can be convincingly used. This kind of practice will help enormously in becoming more comfortable with a richer and more complex harmonic vocabulary. The more this vocabulary can be convincingly used in organized arrangements, the sooner it will be of practical use in improvising situations.

Although we all seem to be fascinated by harmony which is relatively thick and seemingly complex, it is important to remember the sage advice that "less is more". This applies not only to the importance of achieving a relative mastery of four-note structures before becoming too involved in greater harmonic complexity or density, it also applies to the great musical potential in harmonic structures which contain even less than four notes.

Song for Daralene 613 #9 D67<sup>69</sup> Slow Jazz Waltz( = 90) Bill Dobbins Db13 Gb13 B13#11 r.h. Eb-11  $869_{\Delta}$ B6#11/Bb B♭6<sup>9</sup>∆ 00,30: B6#11/Bb  $869_{\Delta}$ DΔ<sup>9</sup>(#5-6) 613 #11 D67<sup>69</sup>  ${\rm Gb6}^9\!\!\Delta$ Bb69411 Bb13sus 69 F13<sup>65</sup>/Bb E13<sup>#11</sup> B♭13 sus Bb13sus

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**Example IV.C1** illustrates the original three-note voicings used by Duke Ellington in *Mood digo* in 1930. The most striking thing about this phrase is how utterly surpising the sound of a nple F minor triad becomes. It is interesting to note that most jazz musicians, having never listened closely to any Ellington recording of this piece, play the predictable II - V formula in this peasure: C-7, F7. Of course, this renders the entire phrase harmonically uninteresting. The minor triad also causes the next voicing to sound much more colorful by contrast. Most of Ellington's near two thousand compositions have at least one similar phrase, in which a competely familiar and simple chord is made to sound fresh and unexpected.

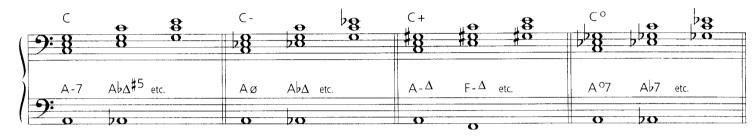
In relation to this example, the value of collecting song folios by the great popular song writers is porth emphasis. First of all, the folios of such composers as Harold Arlen, Cole Porter, George ershwin and Jerome Kern contain the original melodies and lyrics from many of their songs which have been performed over the years by the greatest jazz instrumentalists and vocalists. Ince most jazz musicians, unfortunately, never play the melodies as they were written, most jazz musicians don't even know what the original melodies are. Admitting that jazz is primarily a musical art form of variations on a theme, it is rather embarassing that jazz musicians are often venting variations of themes which they have only learned from the paraphrases of other improvisers or from fake books which are full of melodic and harmonic inaccuracies. Secondly, mowing the lyrics to a song can stimulate a great variety of rhythmic possibilities, even without ling or omitting any tones from the original melody. Lester Young supposedly would not play a song unless he knew the lyrics. Finally, the piano accompaniments in these song folios often that decorative chords or alternate bass notes which are musically more interesting than what my jazz musicians play in a given tune. In most cases they are at least a better starting point from which to develop harmonic embellishments or alterations.

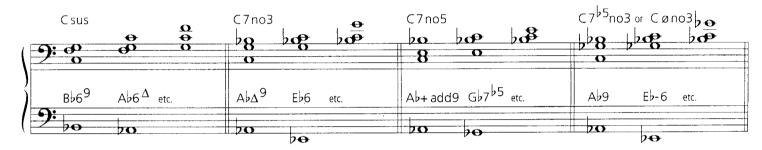
#### Example IV.C1

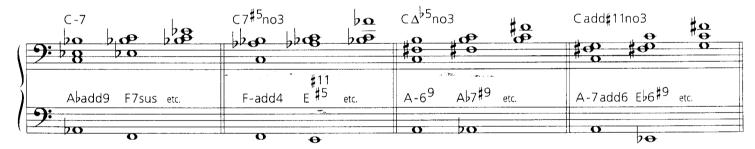


as fortunate, indeed to be able to get to know the great song writer Alec Wilder. He spent a treat deal of time in Rochester during the last twenty years or more of his life. He had a greater reciation of the special creative skills of jazz musicians than many jazz musicians have, and he lld be seen often in Rochester's jazz clubs, listening with rapt attention and sincere admiration. t greatly annoyed him, however, that most jazz musicians never bothered to state the composer's ginal melody of any song which they used as a vehicle for improvisation. He considered it an nsulting presumption to assume that the improviser's casual abstractions are as good or better an the original, and was always aware when someone was playing a melody which they really w and respected. He would often go to the trouble of sending complimentary notes to such nusicians or, if he heard a recording which demonstrated such care, he would find the person's ne number or address and call or write them. I have personally made so many interesting diseries about songs which I thought I knew, simply by bothering to find the published version, hat I always feel grateful to Alec for sharing this insight with me. As a way of repaying his kinds, I always state the original melody of every popular song I play at least one time during a formance, even though the rhythm is always varied as suggested by the lyrics. After all, many cople in today's audiences have never heard the real melodies of these songs. As a result, when I r someone play a song whose melody and lyrics I know, I can tell within two or three meares whether or not they really know the melody and lyrics. If we want other people to apprecit<u>e</u> and respect the music we play, we need to begin by appreciating it and respecting it ourselves.

**Example IV.C2** illustrates all possible three-note structures in close position. The first two possible alternate bass notes with which a particular three-note structure can be combined are included below the root position voicing and inversions. As with four-note voicings, these three-note voicings may be used to harmonize melodies, accompany a soloist or accompany a right hand melodic line. Both the three-note structures and the four-note structures which result from an added bass tone may be practiced through the circle of fourths in the same manner as the harmonic structures which have been explored in earlier chapters. As the hands and ears become more familiar with these structures they can be applied to actual repertoire and, later, to improvising situations. Duke Ellington was, perhaps, the most creative of all pianists in terms of developing imaginative and unpredictable comping from three-note voicings.







6 8 0 8 C	C Δ no 3	β	CΔ <sup>#5</sup> no3 # <del>Q</del>
A-add9 Ab+#9 etc.	A-9 Α <sub>Δ</sub> Δ <sup>‡9</sup> etc.	A-9 <sup>5</sup> Ab# <sup>9</sup> etc.	A-9 <sup>Δ</sup> F-#11 etc.

C13 no3 . • • • • • • • • • • • • • • • • • •	C6 $^{\Delta}$ no3 $oldsymbol{\Omega}$	
1 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<u>o</u> de <u>o</u>	П
70	0	Ŧ
Bb $\Delta^9$ no3 G-11no7 etc.	A-add9 Fadd#11 etc.	
9	0 0	

In order to develop a more thorough understanding of three-note voicings, the following steps ill be helpful.

- 1. Discover, through experimentation, listening and analysis, all the possible bass notes which may be combined with each particular three-note structure shown in example IV.C2. Some of these structures may be combined with any of the twelve tones in the chromatic scale. Notice that many of these four-note combinations have already been explored in the first three chapters. The importance of understanding the relationship of three-note voicings to various bass notes, however, is related to playing with a bass player. The pianist is then free to play only the three-note structures, leaving the bass notes or roots to the bassist.
- Create some harmonic accompaniments with three-note voicings. Accompaniments for solo playing should consist mostly of three-note voicings in which the chord root is the bottom tone. Accompaniments for playing with a bass player might consist mostly or entirely of three-note voicings which do not contain the chord root.
- 3. Harmonize some simple melodies with three-note voicings which do not contain the chord root (unless it is the melody tone). Play these three-note voicings with the right hand while playing the chord roots with the left hand.

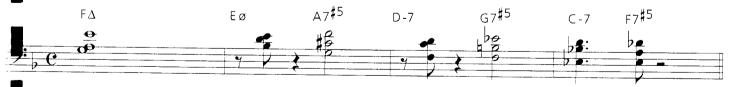
Confirmation, by Charlie Parker. In order to keep the chord roots in the bottom voice, while resintaining smooth voice leading in the top two voices, "drop two" voicings are sometimes used. Since these voicings are too wide for the hands of many pianists, separating the bass notes in a rhythmic manner can make this type of accompaniment more playable. Of course, some pianists with small hands prefer simply to play roots and sevenths or roots, sevenths and thirds in close position.

#### Example IV.C3



mple IV.C4 is a harmonic accompaniment based on the same chord progression. In this example, however, most of the voicings do not contain the chord roots. While an accompaniment such as the one shown in example IV.C3 can be played with or without a bass player, an accompaniant such as the one shown below is much more effective with a bass player than in a solo piano context.

#### Example IV.C4



**Example IV.C5** is a version of the first phrase of *Body And Soul*, by Johnny Green. Careful respectively sis of the individual harmonic structures and voice leading will help to understand the needical use of three-note voicings in melody harmonization. Make note of the structures which tate the actual chords in the harmonic progression, and pay careful attention to how they are

approached and left by the embellishing structures. Try playing the three-note voicings in the "drop two" form. Play both versions in different keys.

#### Example IV.C5



It is extremely worthwhile to realize that any well conceived four-voice harmonic texture already contains four different three-note textures within it. **Example IV.D1** shows a two measure harmonic progression from the first chapter. It consists of "drop two" voicings which harmonize a melodic fragment based on a II – V – I progression in G major.



**Examples IV.D2 - IV.D5** illustrate the four different three-part textures which are contained in example IV.D1. These are derived from the combinations of the first, second and third voices, first, second and fourth voices, first, third and fourth voices, and second, third and fourth voices, respectively.



In example IV.C2 can also be combined with four-note ctures to create voicings which are more dense and complex. In **example IV.E1**, the lowest otes in the right hand and the three-note voicings in the left hand make familiar four-note picings. Notice that some of these six-note voicings have one doubled note. In each case, however, the doubled note is the result of smooth voice leading, and is approached and left in a medic manner. Each of the four one measure fragments states the same basic chord progression, which slightly different chromatic alterations.

# Example IV.E1

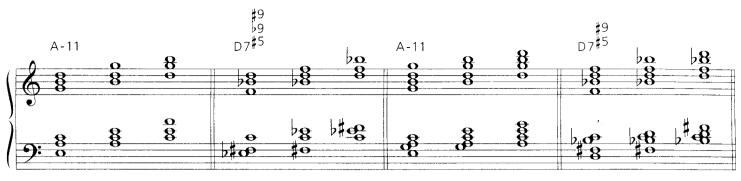


he first one measure fragment in **example IV.E2** adapts the same basic progression to a seventexture. The lowest notes in the right hand and the three-note voicings in the left hand make imiliar four-note voicings. The right hand structures consist of triads with the lowest note douled one octave higher. In the second one measure fragment, the right hand structures are octaves an inner line of fourths or fifths. This creates a six-voice texture with five lines, one of which doubled at the octave. In the third one measure fragment, the hollow three-note voicings are right in the right hand, but there are four-note voicings in the left hand. This creates a seventexture with six lines, one of which is doubled at the octave. In the final one measure fragnent, the right hand plays an octave melody above four-note voicings in the left hand. All of the states illustrated in examples IV.E1 and IV.E2 are used frequently by most jazz pianists in their amonizations of simple melodies and in their comping for soloists. What varies most from one ianist to another is the size and flexibility of harmonic vocabulary.

#### xample IV.E2



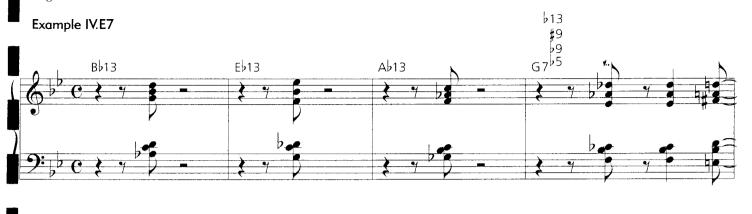
is sometimes difficult to determine the inversions of thick voicings with one or more doubled is. By dividing large structures into two small structures, however, it becomes much easier. Here or four-note structures with no doubled tones are easily inverted, as are four-note voicings which the top note is an octave double of the bottom note. **Example IV.E3** illustrates a simple mod of obtaining the inversions of common types of six and eight-note voicings. By omitting the top note of the eight-note voicings, inversions of seven-note voicings could be obtained in the time way.



**Examples IV.E4 - IV.E6** use the various types of six, seven and eight-note voicings in three different versions of the first phrase of *Lil' Darlin'*, by Neal Hefti.



**Example IV.E7** uses the same types of voicings in an accompaniment based on the first phrase of *here Is No Greater Love*, by Symes and Jones. Although these thicker textures can be very effective, their success depends heavily upon a strong foundation of well conceived four-note oicings.





ix-note voicings with no doubled tones also present some interesting possibilities. If a seventh one is added as a possible bass note, however, every tone of a seven-tone diatonic scale is present in the same chord. Such dense and complex structures are, obviously, much more cumbersome and unwieldy in improvisation than three, four and five-note structures. This is why they appear any here, near the end of this study. Just enough information will be given to permit those who are interested to pursue the study of these structures on their own.

rample IV.F1 illustrates all possible six-note combinations, again, ommiting only those combinations which contain two or more adjacent half steps. There are twenty-six groups, each of which has six different forms: the original, or root position, and five inversions. Because each roup already contains six different tones, there are fewer possible bass tones with which these structures can be convincingly combined for comping or melody harmonization purposes. Of burse, a great many colorful possibilities do exist, some of which will be examined here.

#### Example IV.F1













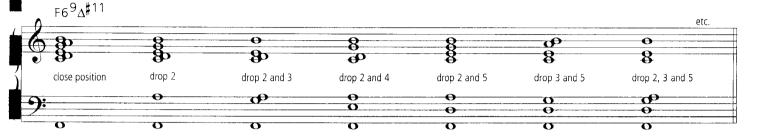






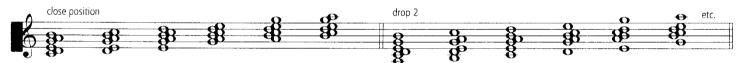
While there are two common voicings of four-note structures (close position and "drop two") and bur common voicings of five-note structures (close position, "drop two", "drop two and three" and "drop two and four"), there are seven common voicings of six-note structures. In **example IV.F2**, seven common voicings of the first six-note structure from example IV.F1 are shown above he bass note, F. This creates a seven-note F Lydian structure. Of course, other voicings are also possible, such as "drop three" in four and five-note voicings, and "drop three", "drop four" and "drop five" in the voicings below. Remember, each new voicing of the structure below contains ive others which are obtained from the inversions.

# Example IV.F2



**Example IV.F3** illustrates the inversions of the the close position and "drop two" voicings from xample IV.F2. Remember, each structure in example IV.F2 can be played in root position and five different inversions in each type of voicing (drop two, drop two and three, etc.).

### Example IV.F3



It would take many months, perhaps even several years, to practice all of these six-note structures with the same degree of thoroughness as suggested for the three, four and five-note structures, uch dense voicings, moreover, are only useful in fairly specialized situations. However, it will be useful to practice those structures which are clearly of musical interest with the same care as is devoted to simpler material.

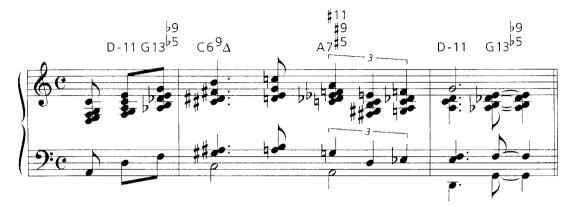
**Example IV.F4** illustrates three versions of a simple harmonic progression. Five-note voicings are used above the chord roots in the first version. Six-note voicings from the structures shown in kample IV.F2 are used in the second and third versions. These versions also use "drop two" and drop three" voicings in addition to root position. Careful analysis of the interval structures and voice leading will be helpful in understanding the practical use of voicings of this type.

## Example IV.F4



**Example IV.F5** is a version of the first phrase of *I Can't Get Started*, by Vernon Duke. Once again, six-note voicings with no doubled notes have been used. Careful analysis of the voice leading and harmonic embellishment of the given chords will be helpful in moving toward the use of this type of harmonic vocabulary in repertoire and, eventually, in improvisation.

### Example IV.F5



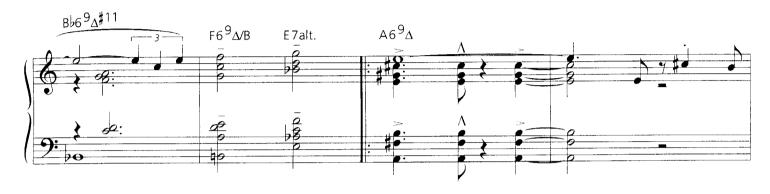
The original composition, *Evan's Dance*, uses six-note voicings derived from the structures shown in example IV.F2. The occasional doubled notes double either the melody or the chord root, but most of the voicings contain no doubled notes. This piece illustrates just how effective and colorful six-note voicings can be. But the truly skillful use of complex structures can only be achieved through a thorough mastery of the simpler structures, beginning with seventh chords and triads. The reason for avoiding unnecessary doubling of notes in every example in this study is simple: by maintaining a uniform texture through an entire musical phrase, with little or no doubling, every note must be accounted for. It is only by understanding the musical necessity for each tone in the harmonic texture that a true mastery of harmonic vocabulary can be achieved.

In order to develop a more thorough understanding of the harmonic vocabulary which is used in this final piece, the following steps will be helpful.

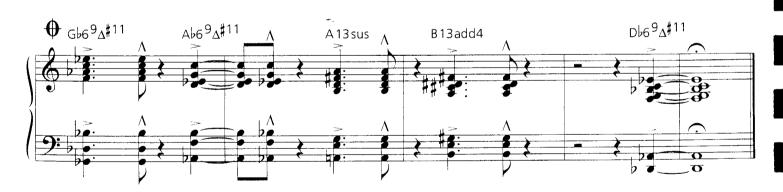
- 1. Analyze the basic harmonic movements. Notice the difference in sound and effect in relation to different types of root movement: descending half steps, ascending fourths (descending fifths), etc. Notice the relative harmonic functions in each harmonic movement: II V, V I, V III, etc.
- 2. Notice the voice leading and resolution of dissonance. Identify the individual members of each chord. Notice how they are approached in the previous chord and where they move in the next chord. Listen to the sound and notice the effect of this voice leading.
- 3. Play some of the short phrases or harmonic movements in different keys.
- 4. Find phrases in some standards or other repertoire in which some of these voicings can be used. Transpose these phrases to different keys.











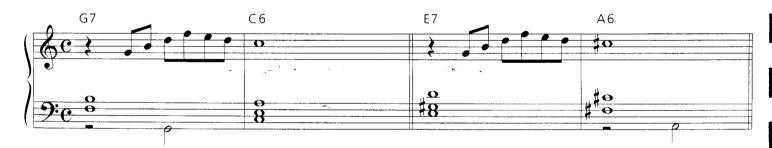
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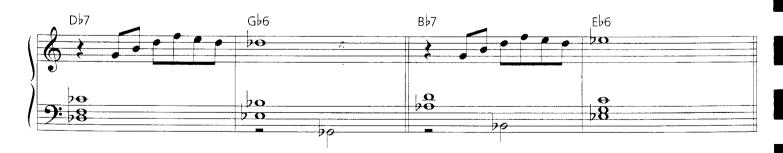
# V. Melodic Considerations

There are at least two useful applications of the concept and vocabulary of this study to the area of melody, whether composed or improvised. The first, and the more obvious, is the use of the three, four, five and six-note structures as sources for melodies. These structures might be used in their basic form, as shown in the examples here, or with chromatic melodic embellishments. The second melodic application, however, involves the general concept of this study: the application of one particular musical structure to the maximum number of compatible harmonic contexts. Just as a given three, four, five or six-note structure can be combined with several different bass notes in order to create several different chord types, a given diatonic or symmetrical scale may sound compatible with several different chords. The improviser who is able to use any part of his or her musical vocabulary in many different harmonic contexts commands a much broader range of musical creativity and expression than the improviser who can use each structure in only one context.

The cycle of minor third substitutions has been a common tool of jazz improvisers since the 1940's. Above a C7 chord in the accompaniment, for example, the improvised melodic line might be based on C7, Eb7, Gb7 or, less often, A7. Conversely, a melodic line based on a G7 chord might be played above an accompaniment which is based on G7, E7, Db7 or, less often, Bb7. **Example V.A1** illustrates the use of the same G7 arpeggio above each of these four dominant seventh chords, followed by a resolution to the appropriate tonic chord.

## Example V.A1





**Example V.A2** illustrates similar resolutions which are derived from the descending form of the ame G7 arpeggio. The same left hand accompaniments can be used for these melodic fragments.

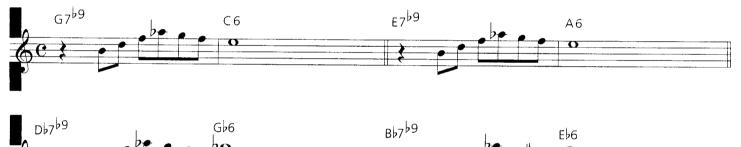
## Example V.A2

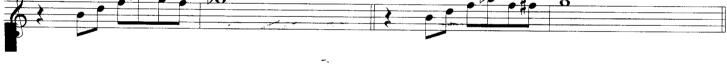




A B<sup>o</sup>7 chord contains the same pitches as G<sup>‡o</sup>7, F<sup>o</sup>7 and D<sup>o</sup>7. The same four-note structure can function as the third, fifth, seventh and lowered ninth of G7, E7, D<sup>b</sup>7 and B<sup>b</sup>7. These diminished dominant seventh chords normally resolve to C, A, G<sup>b</sup> and E<sup>b</sup>, respectively. **Example V.A3** illustrates the resolution of the same ascending B<sup>o</sup>7 arpeggio to each of these four tonic chords. The same left hand accompaniments can be used for these melodic fragments.

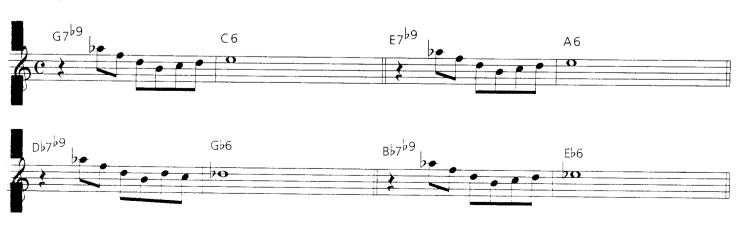
# Example V.A3





**Example V.A4** illustrates similar resolutions of a descending B<sup>o</sup>7 arpeggio. The same left hand accompaniments can be used for these melodic fragments.

# Example V.A4

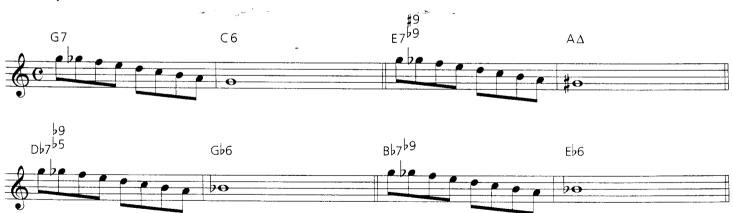


To continue the exploration of seventh chord arpeggios in the creation of melodies, the following steps will be helpful.

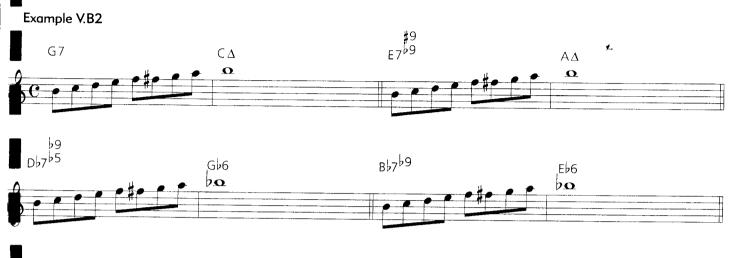
- 1. State the tones of the dominant seventh or diminished seventh arpeggio in different sequences (3 1 5 7, 5 1 3 7, etc.). This will make it necessary to find different melodic resolutions to the tonic chord.
- 2. Adjust the melodic resolution and the final left hand voicing so that the tonic chords are minor sixth chords. Listen carefully, in order to be certain that the melody tones are compatible with the resolution to the tonic minor chord.
- 3. Play these two measure sequences in all twelve keys through the circle of fourths. Regular practice of this kind will make it possible to internalize the vocabulary, so that it may become available more quickly for use in improvising.

Dominant seventh scales can be used to express these same minor third relationships. Example V.B1 illustrates a descending G7 scale, with a chromatic passing tone between the root and seventh, above G7, E7, Db7 and Bb7 chords. Each accompanying dominant seventh chord resolves to its normal tonic. The difference between playing a Db7 scale or a G altered scale above a G7 chord is significant. While every note of the G altered scale is a possible chord member of a G altered dominant seventh chord, the fourth degree of a Db7 scale is not. Since this tone (Gb) is extremely dissonant against a G7 chord, it requires melodic resolution. It is just this resolution which can be used to create exceptional melodies, since the ear is immediately engaged in listening for the resolution of this dissonance. The fourth degree of a G7 scale, the traditional suspension in this context, creates a similar tension. The less frequent use of a G7 scale above a Bb7 chord is also significant. The tones B and A, in the descending form of the scale, want to resolve to Bb and Ab, respectively. If the melody continues to G it sounds awkward or even wrong, since the obvious melodic goal was completely passed over. If the two tones B and A are used as an embellishment of the tone Bb, however, the result is both colorful and melodically convincing. When playing the material in examples V.B1 and V.B2, simple and clear left hand voicings with the chord root on the bottom will be helpful in hearing the relationship of the melodic line to the harmonic progression. Voicings such as those used in example V.A1 are recommended.

#### Example V.B1



ust as the ability to play and resolve seventh chord arpeggios of different shapes and tonal sences is a valuable source of melodic variation, so is the ability to play and resolve both ascendand descending scales which begin on any basic chord tone. **Example V.B2** uses ascending orms of the G7 scale, with a chromatic passing tone between the seventh and the root, in the harmonic relationships which were illustrated in example V.B1.



re is still another useful and colorful application of the dominant seventh scale. When Charlie arker improvised on a half diminished chord, he often played the dominant seventh scale or peggio whose root is a major third below that of the given half diminished chord: G7 for Bø, for apple. In fact, he often began his melodic line with the root of this substitute chord: G above a chord. It is likely that Parker, who played primarily by ear, heard the combination of the tones, F and A as a G9 chord in certain harmonic contexts. More importantly, playing G7 material re a Bø chord results in much more colorful melodies than playing B Locrian material. What approviser, thinking of a B Locrian scale, would ever begin a melody with the tone, G? Charlie ter, however, was probably listening much more than thinking. The lesson to be learned from is that jazz theory, if it is to be of any real practical use, needs to be closely related to what the aster improvisers have played and heard. When theory becomes a purely intellectual pursuit the has little or no connection with the music itself, it creates more obstacles than insights.

cample V.B3 illustrates the use of a G7 scale above a Bø chord. A further advantage of this ationship is that G7 is already the minor third substitute above the next chord: E7.

#### example V.B3



**Example V.B4** illustrates four different resolutions of the same B diminished scale fragment. Playing a B diminished scale rather than a G inverted diminished scale (half step - whole step) on a G7 chord has the advantage that the root of the G7 chord is less likely to be emphasized. Even though both of these scales contain exactly the same pitches, most people tend to emphasize the roots of the scales they use. Since the roots of the chords are emphasized in the bass line, they are the least colorful tones for melodic consideration.



A final observation on dominant scales is that, in most instances, melodies based on II - V progressions can emphasize V, even to the point of omitting II altogether. In general, any melody based on the basic sound of G7 will sound just as convincing above the basic sound of D–7. The pair of tones which actually imply harmonic movement in this context is C, B: the seventh of D–7 resolving to the third of G7. The traditional 4-3 suspension resolution, however, involves exactly the same pair of notes in relation to G7. The melodic line in example V.B3 illustrated the use of a single scale in relation to II - V progressions in which II is a half diminished seventh chord: the G7 scale above both Bø and E7. The fifth mode of the harmonic minor or harmonic major scale, with a chromatic passing tone between the seventh and the root, can be equally effective (the fifth mode of A harmonic minor or harmonic major here, stace Bø, E7 implies the key of A). The harmonic major scale is a major scale with a lowered sixth degree. Both the harmonic minor and harmonic major scales contain a diminished seventh chord, which is built on the seventh degree of the scale.

It has been my personal experience that making melodic relationships to harmony more complicated, both by always using a different scale for each chord and by changing the chords more rapidly, can rob melody of its most lyrical qualities. Although there is no denying the fun and the challenge of playing a solo on *Giant Steps* which is melodically inspired rather than academic and predictable, it is just as true that an obsession with interpolating rapid harmonic cycles into every tune can make every tune sound more or less alike.

The melodies of most of the great American popular songs contain few, if any, tones which are outside of the tonic scale. The genius of these songs has mostly to do with the way in which the accompanying harmonies continually transform these diatonic tones. The same thing is true of the great blues tradition. Duke Ellington understood, perhaps better than any jazz musician, how the combination of simple blues melodies with rich harmonic progressions can transform both into something truly magical. Suffice it to say, it is at least as important to be able to simplify complicated things as it is to complicate simple things.

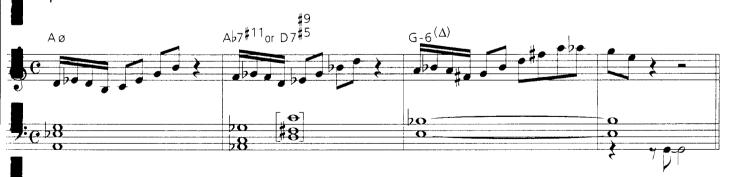
reative use of the melodic minor scale provides another means of simplifying the relationship of bdy to harmony, and with musically worthwhile results. The seventh chords which can be lift on the various degrees of the melodic minor scale include  $\Delta$  (I),  $\emptyset$  (VI), 7 or  $7^{\sharp 11}$  (IV), -7 or sets (II),  $\emptyset$  or  $7^{\flat 5}$  (VII), 7 or 7sus (V) and  $\Delta$ + (III). Most melodies which are conceived in relation the basic sound of C melodic minor actually fit many of these chords quite well. In fact, they build much more colorful than many of the melodies which are conceived in relation to a scale with has the same root as the chord. The third mode of melodic minor, also known as the Lydian mented scale, also works well in this way. Since there is much more repertoire in minor tonally than in Lydian augmented modality, however, it is well worth learning the melodic minor than the provided in the melodic minor melody to a labor of different chords.

# Example V.C1



cample VC2 illustrates the use of melodic minor scales in relation to a simple II - V - I progression in G minor. Some improvisers might use an A Locrian or Locrian #2 scale for Aø, a D altered altered diminished scale for D7, and a G Dorian mode for G–6. While this is certainly one possibility, it is also a rather complicated one which may still result in heavy emphasis of the root each chord. A simpler approach is to use three melodic minor scales. The first advantage to this boach is that there is one scale to practice instead of three. A second advantage is that it greatly collitates thematic continuity and development: the sequential relationship is quite clear. Perhaps a most important advantage, however, is that this approach causes the same melodic material to be defresh with each change of chord. Most importantly, the most distant relationship between tale and chord occurs with the dominant chord, exactly where tension is most desirable. Consely, the closest relationship between scale and chord occurs with the tonic chord, exactly the resolution is most desirable.

# Example V.C2



Enough examples have been introduced in this chapter to make it clear that the same process could be applied to almost any melodic material, just as it was applied to harmonic structures in earlier chapters. The basic materials which were introduced in this chapter, however, were included because they can be found in so many classic improvisations by jazz masters from the swing era to the present. A tremendous amount of time can be saved in developing improvisation skills if the material which is practiced is a part of a real musical language. When we learn a foreign language, we don't invent vocabulary and common grammatical usage. We attempt to assimilate and imitate the language as it is, with a long term goal of achieving a relative mastery. When a language, verbal or musical, has been mastered sufficiently, the same words can be used to express personal thoughts, feelings and experiences. A true master can use those same words in such a skillful manner that they convey aspects of reality which are beyond any literal meaning. In India, before an aspiring musician can choose an instrument, he or she must learn to sing all the traditional melodies or ragas and tap and recite all the traditional rhythms. This centuries old system insures that, before getting too technically advanced on a "music machine", aspiring musicians have internalized the basics for making music at any level of complexity or subtlety. If there is no music within, no amount of either technique or technology can invent it.

In order to internalize some of the basic vocabulary presented here, the following steps will be helpful.

- 1. Practice major and melodic minor scales with a chromatic passing tone between the fifth and sixth tones in both ascending and descending forms. In most jazz contexts, the descending form of the melodic minor scale contains the same pitches as the ascending form. Begin in any key, then continue either through the circle of fourths or by descending half steps, since these are two of the more common harmonic movements. The scales should be practiced beginning on the root, third, fifth and sixth, since these are the basic members of tonic chords in major and minor keys. As a result of the passing tone, eighth note lines which begin with a chord tone on the beat always have chord tones on the beat. Of course, adjustments must be made if the line begins between beats or if other rhythmic values and chromatic tones are used.
- 2. Practice dominant seventh scales and the dominant modes of harmonic minor and harmonic major scales with a chromatic passing tone between the root and seventh in both ascending and descending forms. Begin in any key, then continue either through the circle of fourths or by descending half steps, since these are two of the more common harmonic movements. The scales should be practiced beginning on the root, third, fifth and seventh, since these are the basic members of dominant seventh chords.
- 3. Practice the diminished scale in both ascending and descending forms. Since there are already eight tones in this scale, no passing tones are needed. Begin in any key, then continue either through the circle of fourths or by descending half steps, since these are two of the more common harmonic movements.
- Practice the melodic lines found in the examples in this chapter, with the appropriate chords in the left hand, through the circle of fourths and by descending half steps.
- 5. Keep a notebook. When you hear an interesting melodic line, transcribe it and analyze it. Practice it through all the keys. Find ways of embellishing or modifying the material which sound convincing. Find other possible harmonic contexts in which exactly the same series of notes derives new meaning. Practice these new combinations through all the keys.

The sequence of events which has remained constant throughout my own musical development onsists of three parts. First comes the discovery stage. I hear a sound in someone's playing, on a recording or in my own head, which attracts my attention in a special way. My curiosity compels me to figure out what this sound is, what its possible musical functions might be and why it has his particular effect upon me. Next comes a period of internalization. Through practice, this sound becomes a natural part of my own musical vocabulary, even though I may use it in the ame context in which I discovered it. Finally, the stage of personalization can occur. This may appen weeks, months or years after the initial discovery. The sign of personalization is the ability to use the same sound in a different context from the one in which it was discovered, or to ombine it with another sound in a way which gives fresh meaning to both. As a description of his final stage, I find the word "personalization" to be more accurate than "innovation". Originality has much more to do with bringing new life to ordinary things through fresh combinaions or perspectives than inventing something which has never existed before. None of Charlie Parker's melodic vocabulary, for example, was personally invented by him. But he was able to find a seemingly infinite number of combinations, and he played the resulting melodies in a eeply personal way. While many improvisers used much of the same vocabulary before and after, it is doubtful that anyone has surpassed Parker in discovering the maximum creative and pressive potential of that vocabulary. The secret of such inexhaustible creativity is closely reted to the concept which has been the focal point of this study: personal work toward the ability to use the same bit of musical information in every conceivable melodic, harmonic and rhythmic

# VI. Basic Practice Strategy

One of the most important factors in maintaining both steady and balanced progress in the development of performance and improvisation skills is the use of a well conceived practice routine. There are two common problems which can easily make such progress more difficult, if not impossible. The first is the tendency to spend too much practice time on material which has already been mastered. Even though we really know that practice time should be reserved for material which needs to be practiced, our ego often prefers to impress itself with material which can be rattled off with relative ease. The second common problem is a general lack of organization and focus on specific goals during practice time. As the saying goes, "If you aim at nothing, you'll hit it every time!"

The easiest way to solve the first problem is to follow one clear and simple guideline: never practice what can already be played with relative ease and consistency. Conversely, in performance situations it is best to play the things which seem natural and relatively effortless. Developing a particular attitude about practicing which is intentionally different from that of performing can greatly improve the efficiency of both. Although it may be argued that the act of improvisation itself cannot be "practiced", practice is essential for the development and internalization of the musical tools and vocabulary which are used in improvisation. The cultivation of an alert but relaxed mental attitude, which is most conducive to the processes of improvisation and group interaction, can also be aided by consistent adherence to an appropriate practice strategy. In general, it is most productive to work in an organized manner toward specific goals when practicing, but to leave those things in the practice room when performing. Anything which is practiced attentively and regularly will make its appearance during improvisation in its own time. Trying to hurry the process can cause the improvising to sound too premeditated, or it may disrupt the flow in a way which greatly increases the tendency toward mental blocks and mistakes in execution.

The second problem, that of organization, is best solved by the development of a particular practice strategy. I like the word "strategy" rather than "routine" in this context. If an effort is made to be attentive during practice, then practice is never "routine". There are always interesting things to be observed during practice. It is usually the things which are directly observed during practice which provide the clearest indications of how best to proceed during the coming days or weeks.

Through my own experience, I have found it useful to divide practice material into six areas, at least until a relatively fluent level of improvisation in relation to a relatively broad musical vocabulary has been achieved.

1. Melodic exercises: short melodic phrases of one to four measures. The actual material might begin with the patterns presented in the previous chapter, but it should always come from the music itself, that is, something in a tune or a classic improvisation which attracts the attention of the ear. This material can be practiced with the right and left hands together in octave unison, as well as with basic chord voicings in the left hand. Before changing material, an effort should be made to employ each phrase in as many different harmonic contexts as possible. Each phrase should be played through all twelve keys. Begin at a comfortable tempo, no matter how slow. Work on a particular phrase until it can be played in all keys without mistakes at a tempo of about 180 for the quarter note.

- 2. Harmonic exercises: any of the material from the first four chapters of this text. Although it is not essential to complete every part of every chapter, the material in the first two chapters should be relatively well mastered before any extensive work on material from the third and fourth chapters is begun. Any tune or phrase from a tune, in which the harmonic content and voice leading has been carefully worked out, may be used as a harmonic exercise. The main objective is to play the material with exactly the same harmonic content and voice leading through all twelve keys. Any given material can also be arranged in several different ways, with the upper voices in close position, "drop two", and so on. Just as with melodic exercises, material can certainly be taken from repertoire or transcriptions of harmonic material from particular recordings which are of special interest. Of course, ballads and/or material played in "block chord" style are especially well suited for this purpose.
- 3. Repertoire: popular standards or jazz repertoire. Begin with standards from song folios which can also be heard on both vocal and instrumental recordings. Sight reading should also be included here. At least a couple of times a week I spend anywhere from fifteen minutes to an hour just sight reading music for the sheer enjoyment of it. The material ranges from song folios and books of jazz piano transcriptions or arrangements to the classical piano repertoire of a number of different composers from all styles and historical periods. If I find a piece to be of particular interest, I add it to my own repertoire. In order to really begin work on a piece, it helps to immediately memorize the melody, harmonic progression and lyrics. Musical material only becomes useful after it has been committed to memory. How can we expect to be able to improvise strong melodic lines, if we have never taken the time to learn some strong melodies. In relation to jazz tunes, begin with tunes from recordings on which the composer is performing. If a Thelonious Monk tune is learned, it should be learned from a recording on which Monk is performing. Otherwise, the melody and chords may be incorrect. If a lead sheet or fake book is used, it should be compared with the recording for accuracy. Compare the original versions with other recorded versions. At least if you know the original, you can decide for yourself which, if any, of the changes in melody and harmony are preferable to the original. This also provides a valuable perspective from which to decide whether or not you wish to make any embellishments or variations of your own. I find it preferable to retain the essential chords of the original harmonic progression, since this insures that the basic identity of the piece will remain intact. It is also a stimulating creative challenge to find colorful ways in which to embellish and enrich this basic progression. Otherwise, it becomes easy to use idiosyncratic types of substitute chords in a way which makes every piece sound alike. Once a piece has been committed to memory and played for a few days or weeks, it can simply be added to a growing repertoire for future reference, or it can be used in relation to either of the next two areas of practice.
- 4. Transcription: learning tunes and improvised solos from recordings. In terms of learning standard tunes, I would recommend Hank Jones', Ahmad Jamal's, Bill Evans' and Keith Jarrett's recordings, since their harmonic taste is impeccable. In relation to jazz tunes, any recording on which the composer is performing should be representative. After learning a tune, any recorded improvisation which is based on that tune will immediately become more meaningful. Likewise, if a particular improvised solo is of special interest, the tune upon which it is based should be learned first. In terms of improvised solos, I recommend beginning with a few solos by pianists who make a lot of music with relatively few notes. Count Basie, Duke Ellington, John Lewis, Ahmad Jamal and Horace Silver are a few such pianists who immediately come to mind. I strongly suggest learning the solos without writing them down. They may be written down later for future reference. If they are written down first, however, there is a good chance that they will never be committed to memory, which means that the vocabulary contained in the solos will never be assimilated to the point where it can be used creatively in a spontaneous manner. A cassette player with variable pitch and half

speed is an essential tool for transcribing piano solos. The variable pitch mode makes it possible to "tune" a cassette on which the pitch is slightly above or below that of the piano which is being used. The half speed mode makes it possible to hear rapid passages or ghost notes with much greater accuracy. After hearing certain rapid passages at half speed over a period of time, it usually becomes easier to recognize similar vocabulary at the actual speed. As with repertoire, the quality of transcriptions is far more important than the quantity. It helps to listen to a great deal of the recorded work of a particular artist before selecting a particular tune or solo to transcribe. Since learning music from recordings takes a great deal of time and patience, it makes sense to find the best work available of the given artist. If three or four solos in different tempos and moods are learned in minute detail, many of the essential musical and expressive characteristics of the given artist will have been absorbed. In repeating this process over several years in relation to eight or ten artists who play the instrument quite differently from one another, a relatively broad and unrestricted idea of the instrument's capabilities can be developed, from which a more and more personal relationship to the instrument may gradually emerge. This process is aided just as much by personal struggle in life as by actual musical practice. In order to assimilate harmonic, melodic and rhythmic vocabulary more deeply, fragments of transcribed pieces or solos may be used as melodic or harmonic exercises. If a solo contains more than one chorus, the successive choruses may be written directly underneath one another, in order that the musical content in corresponding measures of each chorus may be easily compared. It is also useful and interesting to learn solos by different artists which are based on the same tune. The communicative effects of the vocabulary and style of each artist can be more fully understood as a result of this kind of study. By using melodic or harmonic material in a manner which creates either crossrhythm or rhythmic displacement, rhythmic exercises can be developed. These can become a part of either the melodic or harmonic exercises discussed above. Since rhythm is the most important musical element, it should be a constant goal to practice any and all material with a deep and convincing sense of rhythm. An interest in the music of Lennie Tristano, Lee Konitz, Bill Evans, or other soloists who have made extensive use of cross-rhythm and displacement, may lead to the addition of an additional area of regular practice which is devoted entirely to systematic work on the use of these devices. Music of such rhythmic complexity, however, will be assimilated more naturally and easily after a relatively fluent command of basic jazz vocabulary has been achieved.

- 5. Improvisation: improvising on any tune which has been thoroughly committed to memory. The most important thing is that real improvisation can only occur in relation to music which is so familiar that the participation of the conscious mind is no longer necessary. In real improvisation, one is listening rather than thinking, listening for what is needed at the moment rather than being ensnared by the nearly ceaseless web of thought which rambles on and on in the conscious mind. Thinking, planning and reflecting are both necessary and helpful in all the previous areas of practice. When improvising, however, try to forget everything and just play!
- 6. Interaction: practicing with at least one other musician. It has been said, with real justification, that it takes at least two musicians to make jazz. Of course, a pianist has two hands, and a solo saxophonist could improvise in relation to some imaginary partner. I recommend to all my students, however, that they spend at least half their practice time playing with at least one other musician. One of the most important aspects of any improvised music is the spontaneous interaction among the musicians. There is simply no way to effectively practice this aspect of improvisation alone. And jazz musicians have far too few opportunities to perform in public for such an interactive ability to develop through performance alone. If the increasingly rare public performances are to treat the audience to improvisation on a high musical level, interactive skills must be developed and nurtured in regular practice sessions. Even

during periods when there was much more work for jazz musicians, some of the most extraordinary music was created by groups of musicians who took the time and the trouble to get together on a regular basis and work on mutually interesting musical repertoire and concepts. Miles Davis' *Birth of the Cool*, the Tristano "school" and the New York loft scene in the 1960's and 1970's are just a few of the more obvious examples. By practicing regularly with another musician, it becomes easier to focus more and more of one's attention on what the other person is playing. By responding to the other person's music, one's own musical personality is broadened and enriched. Playing interactively with other musicians also helps to develop one's sense of relative pitch. Of course, the more accurate and sensitive our sense of relative pitch becomes, the more accurately we can communicate the music which is inside us at any given moment.

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While it may not be possible to work on all six practice areas on a daily basis, practice time should divided among them as evenly as possible, depending on one's particular imbalance of the moment. If there is a particular weakness in one or more areas, then these areas may need a greater mount of time for awhile. It is just as effective to concentrate on two or three areas each day, uching on all six over a period of two or three days. If there are several hours or more of practice time in a single day, then a certain amount of time might be devoted to all six areas. Don't be couraged, however, if you occasionally have so little time that you can only work on one thing ch day. The idea is to keep working toward balance in all areas. Since no two people have exactly the same strengths and weaknesses, no two people should have the same practice routine. Each rson must attend to the adjustments necessary to attain or maintain his or her musical balance any given time. I wish to know, at any given time, where I am out of balance and what I need most to become more balanced. With effort and patience I can gradually learn to observe many eful things for myself. But the reflection which my actions and personality create in the re-Jonses and reactions of others is just as useful in the search for musical balance and personal growth and development. By recognizing these effects of my own actions, I can become more ponsible for my part in the music. An implicit meaning in the word "responsible" is the ability to respond, in this case, to what the music needs. By learning to recognize what someone else eeds at a given moment in the music, I can also become more able to recognize what I need in own playing or writing. This is why interactive playing with other people on a regular basis is absolutely essential for the development of good musical instincts and a well balanced musical proach.

Imally, strive to always make music when practicing, no matter how repetitive the material night be. Most people become interested in learning to play music as a result of being literally ept away by the playing of certain musicians they hear. When practicing melodic and harmonic exercises, try to play even these with musical expression. When playing repertoire or transcribed paterial, try to express the feeling or mood of the music as clearly as possible. Record yourself quently during practice sessions, then listen to the tape after the session. Notice whether or not he feeling in your own playing comes across as strongly as that of the players to whom you most oy listening. If not, pay closer attention to the way in which certain kinds of phrasing, articulate, rhythmic feel and communicate in specific ways. Then try to make use of these things to communicate in a similar manner through your own playing. In jazz, just as in any other kind of sic, the spirit in which something is played is just as important as the actual material.

# VII. Thoughts on Musical Creativity

What is creativity? Some people think it means doing something which has never been done before. In order to do something which has never been done before, however, you would need to know everything which had been done before. Some people think that creativity means finding your own voice. In order to find your own voice, however, you would need to be able to recognize the sound of it if you heard it. Some people think that creativity has to do with invention. An invention cannot be of any real value, however, unless the inventor knows what, if anything, is needed. Modern technology has shown all too clearly that most people can be taught, if enough promotion and advertising is available, to regard the most useless and idiotic inventions as though they were absolute necessities of everyday life. In fact, all of modern technology has not yet produced any really new activities with which people can involve themselves as their life passes by. It has only invented more and more new ways of doing the same things. More curiously, it is interesting that the greatest number of new ways have been invented for doing only the most superficial or even degrading things, from mindless entertainment to the thoughtless destruction of everything around us. However, few if any new ways are being invented for people to learn to know themselves or to develop meaningful relationships with the outside world which are based on a deep sense of commitment and integrity. That is because these things cannot be invented. They can only be discovered.

Discovery is a process which is quite different from invention. In order to truly discover something, it is necessary to learn to watch and listen with patience and attention. It is also necessary to realize that discovery works best while watching and listening without expectations. Expectations are so powerful in our everyday lives that we are seldom aware of their hold on us. In fact, however, the more we succumb to expectations, the more we tend to experience just what we expect, even when what we expect is quite different from what is actually going on. If we have strong expectations that a performance by a musician whom we have always idolized is going to be great, we will probably experience it as great, regardless of how the music actually is. If we go to a performance of music which is associated with a style or category we have always disliked intensely, we will probably experience it as boring or offensive, regardless of how the music actually is. It all sounds like a childish game of mutual or self titillation. Watching and listening without expectations or judgements can weaken the hypnotic power of desire and expectation.

Both watching and listening may be experienced as different forms of observation, and observation, in the most useful sense, has both an inner and an outer aspect. In relation to music, the outer aspect might be listening to some particular music which is being played, while the inner aspect might be hearing the music in me which responds, or observing how my inner state is affected or even created by the music to which I am listening. Conversely, the inner aspect might be noticing an emotional state which is manifesting itself in the music which I am playing, while the outer aspect might be noticing the effect of the music on the audience. Sometimes the outer aspect becomes more apparent after the fact. I may just now realize that the mood I am in is connected to some music I heard several hours ago, or I may realize after a performance, through contact with members of the audience, that something which I felt or thought during the music was also felt or thought by other listeners. With the help of such observations I can discover, through direct experience, the effects which various kinds of music have on my body, feelings or intellect. The understanding gained from such direct experience can be most useful as a composer, arranger or improviser. Without such knowledge I might think that I was serving up an aural

feast for my audience while, in fact, I might be giving them indigestion or even poisoning them. In Inthermore, without developing the faculty of observation, we may most often be entirely unaware of the many subtle and subconscious ways in which we are effected by the culture in which me live. Most musicians today have forgotten, or even fail to recognize, the subtle yet powerful ays in which music can affect people. The ancient Greeks spoke of this reality in terms of a concept which they called ethos. It is really insane the way most contemporary people, including tists, deny that art or entertainment of any kind has a direct effect on its audience. Of course, we know without a doubt that such influence exists, but we prefer to lie about it, especially if such lying soothes our conscience and seems good for the commercial marketplace. We could see the any effects of contemporary art and entertainment if we had developed keen powers of observation in ourselves, but our desires and expectations keep us from seeing the kind of world we are actually helping to create. Making an effort to simply observe, without our usual attachments, fers the only possibility for the kind of self discovery through which real creativity could begin to grow and develop.

here are many myths about creativity in music, especially jazz. Most people outside jazz, and a r too high percentage of people in jazz, think that improvising is simply making something up out of thin air. In actual fact, improvising music involves spontaneous musical expression within e parameters of a particular musical language. This is even more true in relation to group improvisation. Otherwise there would be no common focal point which could help to bring about a sense of musical continuity or coherence. Learning tunes, melodic phrases and solos from some of e great jazz musicians of the past and present corresponds to learning vocabulary in a language. When particular vocabulary has been sufficiently internalized through practice, it can be put tother in a great number of different combinations in order to express a broad range of musical eas. Over time, the use of these ideas becomes more and more personal. Some musicians develop a mastery of more than one musical language, just as some people have mastered more an one verbal language. The jazz languages of swing, bebop and other related styles are actually ite similar to the musical languages of classical European music from about 1700 to about 1950. The main differences are rhythmic interpretation and, in jazz, the influence of blues melodies. te combination of European harmony with melodies which are related to the blues brings about Le possibility of a vast number of fresh musical combinations. Rhythmic interpretation in music corresponds to pronunciation in a verbal language. If we compare languages which have largely tin origins, such as Italian, French, Spanish and Portuguese, we find striking similarities in the roots of nouns and verbs as well as in the grammatical structure. The pronunciation of Italian and Spanish closely resembles the appearance of the words as they are spelled. In French and Portuese, however, the sounds of the words don't seem to match their appearance in written form. This is largely due to a greater frequency of special sounds, silent letters and subtley pronounced lipthongs. Musicians who have been trained only in classical European music have great diffilty in mastering jazz phrasing and articulation. That is because it is much more specialized. In a two measure melodic phrase from a jazz solo, there may be as many as three or four different pes of articulation, many different levels of dynamic and any number of nuances created with ferent kinds of vibrato, tone color and inflections. These have to be patiently learned through painstaking imitation, just as the specialized sounds of French or Portuguese. Classical musicians so have great difficulty with the loosely swinging eighth notes of jazz, as well as its steady and imated sense of pulse. It is interesting to note that most classical musicians fail entirely to recgnize the immense pool of melodic and harmonic vocabulary in jazz which is common to classimusic. This shows, more than anything else, how easily an extreme difference in pronunciaon and rhythmic flow can hide otherwise overwhelming similarities between two languages. On he other hand, most jazz musicians are quite aware of the basic melodic and harmonic content of ssical music. To most jazz musicians, the tonal resources of classical performers seem rather limited, largely due to the perpetuation of the idea of an ideal sound. In classical music, all pianists e striving for the same ideal piano sound, all singers are striving for the ideal vocal sound, etc. In

jazz, however, each player is encouraged to allow his or her personal sound to emerge. This high regard for personal expression is, perhaps, the most African element in jazz. It is also an important aspect of most nonwestern musics. This is why many scholars have referred to classical music as a composers art and jazz as a performers art. In classical music the most important thing is the composer's revelation, as interpreted by the performer. In jazz the most important thing is the performer's revelation of the quality of the present moment, with the composer's material serving only as a convenient vehicle. The most important thing which is common to both classical music and jazz, however, is that the composers and performers of either may aspire to a level where the tones and melodic phrases seem to point to aspects of human existence which are far beyond the tones themselves, just as true poetry points to aspects of human existence which are beyond the literal meaning of the words.

Perhaps the second most dangerous jazz myth is that the imitation of other musicians, even in the earliest stages of one's development, impedes the development of a personal voice. If this were true, then Louis Armstrong would never have developed a personal voice, not to mention numerous major jazz artists who came after Armstrong. Armstrong learned from his mentor, King Oliver, among others. Roy Eldridge learned Coleman Hawkins solos. Lester Young learned solos of Frankie Trumbauer and Jimmy Dorsey. The list goes on and on. In fact, as stated toward the beginning of this chapter, a personal voice cannot really be developed in a deliberate or self-conscious manner. Otherwise, it would be a mere fabrication. It can only be nurtured through observation, investigation and discovery. If I am strongly attracted to someone's playing, I probably recognize the reflection of some aspect of my own personal voice in their music. What could possibly be wrong with accepting as a gift that part of their music to which I am attracted, nurturing it through careful practice, and ultimately finding my own way of expressing it. The only real problem is being influenced by someone simply because they are popular, or because of peer pressure. As long as I am influenced only by music with which I feel a true affinity, these influences are no more than the helpful and inspiring recognition of kindred spirits. It is a documented scientific fact that no two human voices on the entire planet are exactly alike. The pattern of sound waves of each person's voice can be identified as distinct from that of any other person. It would seem that, contrary to popular belief, there is no need to go to extremes of unusual or bizarre behavior or self-expression in order to manifest individuality. We are already individuals, whether or not we recognize our individuality. Having recognized my natural abilities and affinities, however, it is also helpful to continue to expand and learn from the abilities and affinities of others. Learning of this kind may help me to recognize potential weaknesses in my individual make-up, and may also help me to discover ways of moving toward a more balanced state, in life as well as in music.

As far as modern science has been able to determine, all of the matter which exists in the universe today has existed since the very beginning of the universe. It only changes form. I must confess that I have never seen anything in my own life which has not existed before in some other form, whether a plant as a seed combined with the nurturing of the earth, or a product of technology as raw materials combined with human imagination and organized labor. If all the matter of the universe simply changes form in a seemingly endless series of transformations, how can music be any different. The most creative musicians don't even think about inventing music which has never existed before, as if that were possible. They simply find fresh ways of expressing the same music which, in one form or another, has existed since the dawn of human civilization. Those who confuse a particular form of music with music itself are like those who confuse mere physical beauty with beauty of the spirit or mere physical pleasure with a true sense of well being.

Western civilization seems to be stuck in a reality which we ourselves have defined, but whose definition we cannot now escape or transcend. In uncritically embracing the aesthetic view of the function and value of music, as well as the other arts and sciences, we have completely lost touch with the hermeneutic view. If the works of ancient Egyptian sculptors or European baroque com-

posers still fascinate and inspire us today, it must have to do with something deeper than a popular definition of beauty or a set of rules for composition or aesthetic judgement. It must be that great art of the past informs and instructs us in the difficult quest for truth and for meaningful contact with life in all its myriad forms. The aesthetic view lures us to remain focussed on exterlar reality. If we are to avoid complete entrapment by the hypnotic power of the world of easy hype or cultural elitism, however, we need the kind of grounding which the more ancient hormeneutic view is better suited to provide. "Know thyself" is still the most worthwhile, if also e most difficult, of all precepts by which to prioritize one's life.

In ancient Chinese culture, two of the significant concepts of energy are known as *chi* and *jing*. *ii* is the ultimate life force through which life is maintained in the universe. *Jing* is the external manifestation of this energy. In the ancient Chinese schools of knowledge it is said one can only experience *chi* directly within oneself. *Jing* cannot be experienced directly, but only in the manistations of others. In other words, only I can experience my own *chi*, but only others can experience my *jing*. This quality of two different dimensions, discussed earlier in relation to observation, also applies to music. While others may experience the manifestation of the music I play, ly I can experience the inner state through which the music actually comes. This state, at its best, has much more to do with a sincere desire to allow the music to come through me than it es with inventing something. It has more to do with observing and listening than with "making something". In fact, true music can only be a natural by-product which results from a deep understanding and an uncompromising love of the creative medium and its full potential.

It is interesting to notice that the divergence of western music from eastern music which began about fifteen hundred years ago was much more the result of discovery than invention. The history of western music from plainchant to microtonal electronic music evolved according to the covery of higher and higher partials in the overtone series, a series of tones which are faintly audible above any individual tone which is sung or played on an acoustic instrument. On some truments certain partials sound more or less forcefully, but the series is the same for any coustic instrument.

# e overtone series: partials generated from the pitch 'C'



he filled pitches are slightly out of tune.

The earliest "harmony" involved parallel perfect fifths. With the addition of parallel octaves, especially when women joined in the singing, the next partial was incorporated. For the next several centuries triadic harmonies, incorporating the next two partials, provided for a wealth of fresh musical development. Even the official church doctrine had to oppose the tritone interval, the next partial, for as long as possible. Many people must have sensed, intuitively, that the tritone, the "devil in music", would change the vocabulary of music forever. Of course, the discovery of possible resolutions of the tritone interval led to the birth of tonality, which has been the principal basis for most of western music ever since, including jazz. The series continues with somewhat out of tune whole steps (impressionism), followed by even more out of tune half steps and ever smaller intervals, which become increasingly inaudible.

Many interesting developments have taken place in western music during the twentieth century, the most significant being the birth and evolution of jazz. Not only have many rich musical vocabularies been brushed over in a mad search for "new musical resources", but even the inventors of much ultimately sterile vocabulary have admitted that traditional tonal music is far from exhausted as a vital source for creative music. Even after his highly influential experiments with a twelve tone system, aimed at moving beyond tonality entirely, Arnold Schoenberg said that there was still a lot of great music to be written in C major! I hope that if this book has demonstrated anything, it is that there are still a practically infinite number of fresh harmonic possibilities within the already known harmonic vocabulary currently employed by jazz musicians. I am confident that there will always be musicians among us who, unafraid of a little hard work, will continue to delight us by making all things new again (as opposed to making all new things again). Johann Sebastian Bach is, perhaps, the most influential western musician of the last five hundred years. Even though he was considered old fashioned during his lifetime, and was certainly not lauded with fame and fortune as are quite mediocre contemporary pop stars, his music speaks to humanity today just as it did nearly three hundred years ago. His tremendous musical output, not to mention its uniformly high quality, could not have been possible without his extraordinary skills as an improviser. His musical imagination was inexhaustible, and the expressive use of harmony which was implied in his contrapuntal textures surpassed that of composers who lived more than a century after him. I have no doubt that if Bach had been born in the twentieth century, he would have been a jazz musician.