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PLAY-ALONG CD TRACK LISTINGS



	TRACK C INSTRUMENTS	TRACK B \flat INSTRUMENTS	TRACK E \flat INSTRUMENTS	PAGE
Tuning Note B \flat Concert	1/1			
Trichord 1+2 Exercise	1/2	1/3	1/4	35
Trichord 1+3 Exercise	1/5	1/6	1/7	77
Trichord 1+4 Exercise	1/8	1/9	1/10	100
Trichord 1+5 Exercise	1/11	1/12	1/13	125
Trichord 2+3 Exercise	1/14	1/15	1/16	143
Trichord 2+4 Exercise	1/17	1/18	1/19	157
Trichord 3+4 Exercise	1/20	1/21	1/22	187
Trichord 2+5 Exercise	1/23	1/24	1/25	207
Trichord 1+1 Exercise	1/26	1/27	1/28	223
Trichord 2+2 Exercise	2/2	2/3	2/4	233
Trichord 4+4 Exercise	2/5	2/6	2/7	245

TRACK		PAGE C INSTRUMENTS	PAGE B \flat INSTRUMENTS	PAGE E \flat INSTRUMENTS
2/8	Minor Exercise 1	260	261	261
2/9	Minor Exercise 2	261	262	262
2/10	Dominant Exercise 1	262	263	263
2/11	Dominant Exercise 2	263	264	264
2/12	Major Exercise 1	264	265	265
2/13	Major Exercise 2	265	266	266
2/14	II-V7-I Exercise	266	267	268
2/15	V7 \flat 9 to Im Exercise	269	270	270
2/16	Blues Exercise	271	271	272

DEMONSTRATION TRACKS

2/17	Trichord 1+2
2/18	Trichord 1+3
2/19	Trichord 1+4
2/20	Trichord 1+5
2/21	Trichord 2+3
2/22	Trichord 2+4
2/23	Trichord 3+4
2/24	Trichord 2+5
2/25	Trichord 1+1
2/26	Trichord 2+2
2/27	Trichord 4+4
2/28	Minor Chords Using 1+2

NOTE

Example

1/17 = CD 1, Track 17

2/8 = CD 2, Track 8

John O'Gallagher – Alto Saxophone

Russ Lossing – Piano

Johannes Weidenmuller – Bass

Dan Weiss – Drums

INTRODUCTION

In a typical jazz education, students are taught to improvise using chords and their related scales as they are applied to the standard jazz repertoire. This functional harmonic approach relies on the ear perceiving order because of cadences and chord progressions that establish tonality using a hierarchy of tones based on a diatonic system of scales. When applying twelve-tone concepts to improvisation there is a fundamental difference in the way the ear perceives continuity of the harmony and lines. In twelve-tone music, the interval content is the key ordering principle. The distance from pitch to pitch determines the tonal space and structural relevance that the ear perceives.

This book will present a method for using the 12 trichord types and their derived rows in jazz improvisation. The trichord – a group of three pitches – will be the principal means to describe intervallic space in a clear harmonic way. By combining four trichords of one type, twelve-tone rows will be created that fully express the harmonic space each trichord occupies. Each of the twelve rows has structural relationships to others, creating a family of rows sharing common interval connections. As a harmonic and melodic principle, twelve-tone music stands on its own as a complete system of music.

Twelve-tone improvisation will be approached in two ways within this book. First, as a system that generates musical lines and chords independent from traditional harmony. Secondly, in a method that applies this material to functional harmony. Individual trichords and trichord pairs extracted from twelve-tone rows will be used as harmonic and melodic material on diatonic chord qualities. Finally, twelve-tone rows will be applied to chord changes. This will be achieved by using the harmonic properties of the trichord pairs in conjunction with the remaining trichords from their rows in alternate patterns of consonance and dissonance.

As you work on these exercises you will begin to recognize the distinct sound of each trichord and its corresponding row in the same way you recognize harmonies from major and minor scales. Developing your ability to hear trichords and their interval relationships is crucial. The goal in improvising is always to “hear” the music you play. All of these exercises are intended to acclimate and train the ear to a new way of hearing harmonic and intervallic space.

The information in this method is presented in the context of twelve-tone rows, but should not be viewed as limited exclusively to twelve-tone uses. Any combination of trichords can produce a musically valid statement without using a twelve-tone row. You should explore writing compositions inspired by the concepts presented in the following chapters. Try using both twelve-tone and non-twelve-tone structures.

This method is designed to expand your melodic content and understanding of interval relationships. Memorization and creative use of these exercises is vital to fully developing this material. If practiced diligently, these exercises will give the improviser the ability to remember a row’s structure and the techniques to be able to develop it while maintaining the integrity of the row’s pitch and interval content.

In short, this system will provide you with the tools in which to hear, and think, in twelve-tone.

The material presented in this book assumes that the student has a fundamental understanding of traditional harmony and its applications in jazz improvisation.



TWELVE-TONE MUSIC

In the early twentieth century, composers developed a variety of methods to use chromaticism in their works. Arnold Schoenberg is credited with the most influential of these methods. He described this system as a “method of composing with twelve tones which are related only with one another”. Today it is often referred to as serialism. Schoenberg, along with Alban Berg and Anton Webern, were the major exponents of this system of composition. Each developed a compositional style unique to their artistic visions.

In general, twelve-tone compositional technique can be summarized by a few basic rules established in early twelve-tone works. These are: that rows should be careful not to imply any kind of traditional harmonic movement; a composition should be free from any tonal center; and all twelve pitches should be presented in an ordered succession before any pitch is repeated. These rules in fact are not set in stone and have been modified or broken during the course of serial music’s development. Serial music today can use rows with twelve or fewer pitches and may imply tonality or not, according to the needs of the composer. After more than eighty years as a system of composition, a vast number of methods for developing rows exist.

This book will use some terminology and concepts used by twelve-tone and serial composers. However, it is not meant as a treatise on set theory or twelve-tone composition. Using trichords as the organizing principle for rows is only one approach from the many possible in twelve-tone composition. The material presented here will teach you how to apply twelve-tone methods to a jazz improvisational context.

It might seem that twelve-tone structures are too complex to use in improvisation. But consider that in traditional harmony there are 84 modes from major keys, 84 modes from harmonic minor keys and 84 modes from melodic minor keys. This results in a total of 252 modes and their corresponding chords, not including diminished, whole tone, pentatonic or augmented scales. In this method of organizing chromatic harmony, there are only 175 twelve-tone rows possible and 12 base chord types. Seven of these chord types are non-symmetric and have partners which are inversions. This results in a total of 220 possible trichord constructions using all transpositions. So as you can see, this system is no more complex than that of traditional harmony. That being said, there is a large amount of material here and it does require a different way of thinking and hearing which may seem demanding at first.

I strongly recommend that you read as many books as possible on twelve-tone and contemporary harmony. You can find a suggested reading list at the end of this book.

The following are some terms we will be using.

TRICHORD – Any set or segment of three pitches.

TETRACHORD – Any set or segment of four pitches

SET – A collection of pitches either ordered or unordered.

ROTATION – A cyclic permutation of either pitches or sets. The first pitch of a set is moved to the last position in the pitch order or the first set is moved to the last position in the set order.

PRIME FORM – A row or sets fundamental form from which all variations are derived (i.e. “root position” to use a phrase from traditional harmony). For examples of the prime form please refer to page 13.

SET CLASS – a collection of sets that belong to the same family.

WEBERN, BABBITT AND SCHAT

This system of using trichords to form twelve-tone rows goes back to the beginning of twelve-tone music. Anton Webern is known for using derived rows based on trichords in his compositions. By taking one trichord and performing on it the operations of inversion, retrograde, retrograde inversion and transposition, the other trichords can be found to complete a twelve-tone row. The following is an example of the row used in Webern’s Concerto for nine instruments, Op. 24.

Ex. 1.1

You will learn in the following chapters that this is called row 1+3 using steering 5+1 (in mixed trichord rotations) derived from trichord 1+3. The first trichord in this row is our source trichord. The second trichord is its retrograde inversion transposed by 7 semitones. The third is its retrograde transposed by 6 semitones. The last trichord is its inversion transposed by one semitone. *(Remember that our source trichord is B A# D, with its inversion being B C Ab, its retrograde being D A# B and its retrograde inversion being Ab C B. All transpositions used to find the trichords for this row are applied to these four forms.)*

Composer Milton Babbitt wrote on the combinatorial properties of hexachords (two trichord groupings or six pitch classes) and showed there are only six all-combinatorial hexachords. From these hexachords and their complements (the remaining six pitches) we can realize all of the tone rows possible that are generated from trichords. The following example shows those hexachords and their complements. The numbers indicate the position of the respecting pitch within a chromatic scale, starting with c = 0.



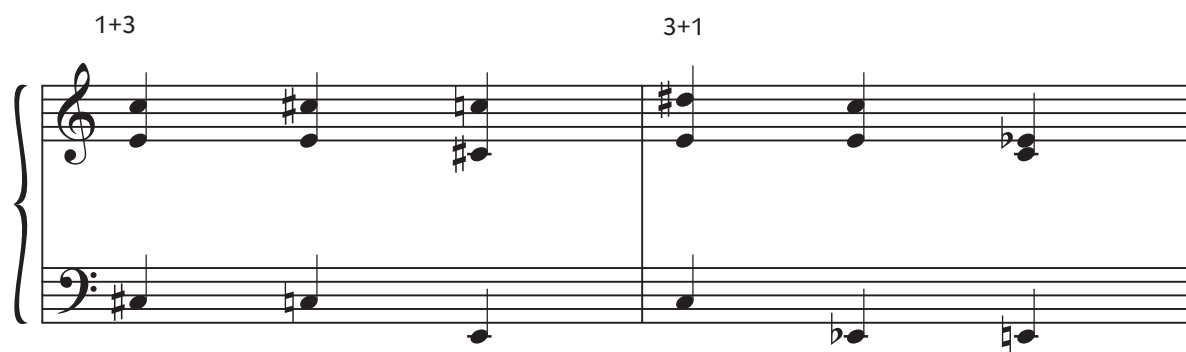
TRICHORD 1+3

There are two versions of trichord 1+3.



Ex. 11.1

as chord voicings



Ex. 11.2

Use the same method for practicing these trichords as in Chapter 6.

1+3 TRICHORDS IN PRIME FORM



Ex. 11.3

20

TRICHORD 1+5 AND 5+1 COMBINATIONS FROM THE ROW

There are only 5 two trichord combinations derived from the row.

FROM ROW WITH STEERING 2+1

COMBINATION 1 – (SET A+B OR C+D) – 1+5, 5+1 (2)

Musical notation for Ex. 20.1, showing 11 trichord combinations (P, 1+5, 5+1, T1-T11) on a treble clef staff. The notation includes a key signature of one sharp (F#) and a common time signature (C). The combinations are: P (Pitch), 1+5, 5+1, T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, and T11. Each combination is represented by a sequence of notes on a staff, with a double bar line separating each combination.

Ex. 20.1

COMBINATION 2 – (SET A+C) – 1+5, 1+5 (3)

Musical notation for Ex. 20.2, showing 11 trichord combinations (P, 1+5, 1+5, T1-T11) on a treble clef staff. The notation includes a key signature of one sharp (F#) and a common time signature (C). The combinations are: P (Pitch), 1+5, 1+5, T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, and T11. Each combination is represented by a sequence of notes on a staff, with a double bar line separating each combination.

Ex. 20.2