FOREWORD

Developing The Cognitive Skills To Play Jazz

Music is meant to be played it is not meant to be read. When music is read, one response only by making a mechanical physical response. When one plays music notation and associates the notes with other notes they take on meaning. To play music notation one needs to breath life into every note. One must give shape to every note played.

The pedagogical approach described in this book will help guide you through this concept of playing.

Music is created in one's mind not on a musical instrument. The musical instrument merely amplifies music that is created and heard in one's brain so it can be shared with the audience. Therefore, the teaching of music should be the result of a mental process. We need to teach students all the mechanics of playing an instrument as well as exposing students to an environment from which they will learn the mental process of creating music. This duality must be taken into consideration when developing techniques to teach jazz. Our teaching objective must be two-fold: how to teach a student to technically learn to play an instrument and mentally create music?

I am not suggesting we discard our traditional technical way of teaching a student how to play a musical instrument but we must add to these techniques the mental process so a student learns how to create music. Technical teaching exposes students to the opportunities to develop the necessary faculties to play the instrument. A student needs to become proficient on their instrument to be able to execute the jazz lines heard in the mind. Remember that old saying, "If you can sing it, you can play it." Unless a student masters the instrument they may not be able to play the music created and heard in the brain.

When students physically respond to what they see (music notation) a mechanical response is specifically created. This process allows one to hear the music after it is performed on the instrument. When the student sees music (music notation) and hears what is seen a mental response takes place, which triggers the physical response. This process allows the student to hear the music before it is produced on the instrument.

So one can easily see why it is necessary to expand our notion of teaching and of the learning process. We need to add another dimension to teaching and learning to play jazz and not rely only on our old traditional teaching techniques. When playing jazz, students need to learn to play what is heard and *not* what one thinks is seen on the printed page. We still must teach scales and chord relationships, but a transitional phase needs to take place so students can take what they've learned and convert it to useable knowledge. It is the mental process that allows a student to apply the knowledge learned.

Our present teaching techniques can be described as follows: We expose a student to the printed page (music notation), label the visual, (i.e. this chord is called G7) artificially measuring the duration of a note by having the students tap their feet, and then identifying the fingering which will produce the sound. This process only teaches one how to make a physical response to what is seen on the printed page. This technique only teaches a student how to play the instrument but not how to play music.

After understanding what takes place in one's brain, we might describe the mental process as: Exposing a student to a printed page, (music notation), allow the student to associate a sound with the note or jazz line and then describe for the student the physical responses that will produce the sound of the note or jazz line. The duration of notes or phrases needs to be *felt* and not artificially measured by tapping one's foot.

We need to develop what I call a sound bank or sound factory in our brain. This part of our brain- the cerebral left quadrant- becomes active when we see music notation. What we see is associated with the sound which will allow one to complete the physical response producing those sounds. We should be able to sing what we see and play what we sing. Students must learn to hear with their eyes and see with their ears.

This book describes the method to be used so students will learn this added element to perform jazz music. The words love, pain, happiness have no meaning unless these emotions are experienced. A note or chord label (D7, GMaj7, Gm7, Bm7-5) has no meaning unless one can associate the label to the sound that is produced.

We teach with a number of assumptions:

- Is one born with the ability to play jazz?
- Can jazz be taught?
- Does one learn by practicing?
- Is learning a direct result of teaching?
- Does one learn to play music if one learns how to play the instrument?
- Can one teach the application of jazz theory?
- Can learning take place without teaching?

This book will answer and enlighten the reader to seek the answers to all these questions.

Teachers/students need to focus on the learning process and develop a better understanding of - not the physiological process - but the mental process that needs to take place. Our responsibility is to provide an environment and experience from which learning takes place. We need to focus on learning and plan to provide students with knowledge that can be used immediately. We need to stimulate the limbic right quadrant of the brain to access the information processed in all the other parts of the brain to produce the desired out come.

This book provides the organization of materials and instructional design so that all parts of the brain become engaged while learning. When one plays jazz we play not what we know but what we *do not know*. If one plays what is known- well practiced licks - then it is not jazz. It is important to understand the sounds attached to the theory of music. The sounds are more important than being able to recite labels. The language of music should be developed based on the sound, not the recall of labels such as chord symbols etc. On the next few pages I have included a Learning Design Mode and Whole Brain Learning Design Model to help develop an understanding of this whole-brain approach.

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Recent research suggests that functions of the brain are *not* localized as once thought. If some functions are localized in the brain of one person, there is no guarantee that it will be in the same part of the brain for everyone else. An example of this may be the way a musician and a non-musician listens to music. For the most part musician's process music heard in the left part of the brain while a non-music person processes music heard in the right brain. This is because a musician analyzes the music heard but a non-music person simply enjoys the sounds. Some of the most recent research claims that functions may be located in different places in the brain between males and females.

To develop a better understanding of hemisphericity, the brain charts on the next few pages identify specific divisions in the brain. Remember that functions may not all take place for everyone in the same part of the brain. What we do know is that the corpus callosum divides the brain basically into a left and right side and the hippocampus divides the brain into the cerebral and limbic upper and lower halves of the brain.

The attempt here is to identify the pathway information needs to travel to covert knowledge in to usable knowledge and arrive at the application. Along the pathway learning takes place with a number of important ingredients; absorbing knowledge, connecting knowledge to previous learned knowledge, developing an understanding of knowledge, and applying the knowledge.

If the learning process does not progress sequentially in this logical order and is not completed before arriving to the final step, we experience gaps in our learning pattern. You have heard the comment, "this student has a few gaps in their knowledge."

Even though we cannot specifically identify exactly where all these steps in the pathway of learning take place in the brain and cannot agree that males and females both mentally process information in much the same way, there is evidence of association between learning styles and brain dominance.

View the brain charts on the next few pages with the understanding they are meant to be simplistic in nature and only to help identify a curriculum design for learning.

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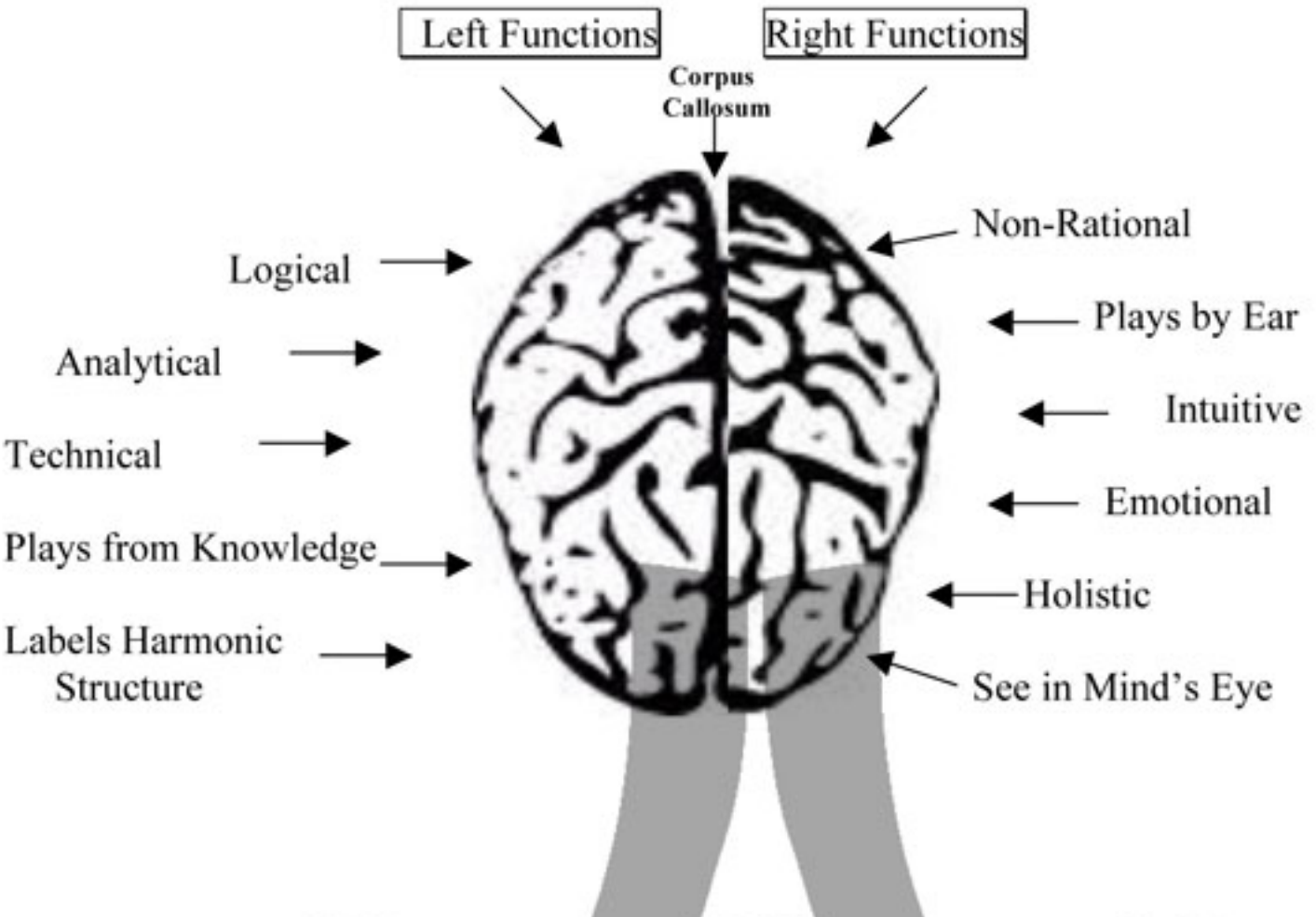
LEARNING DESIGN MODEL



The left side of the brain processes the technical theory of music information and conversely the right side of the brain processes all the creative functions and elements. To make additional comparisons, the left side of the brain is our structures side while the right side of the brain, is our experiential side.

As one can see by the diagram above if one plays jazz only using the left side of the brain it would sound technical and predictable. The right side of the brain allows the performer to play more emotional and be more expressive.

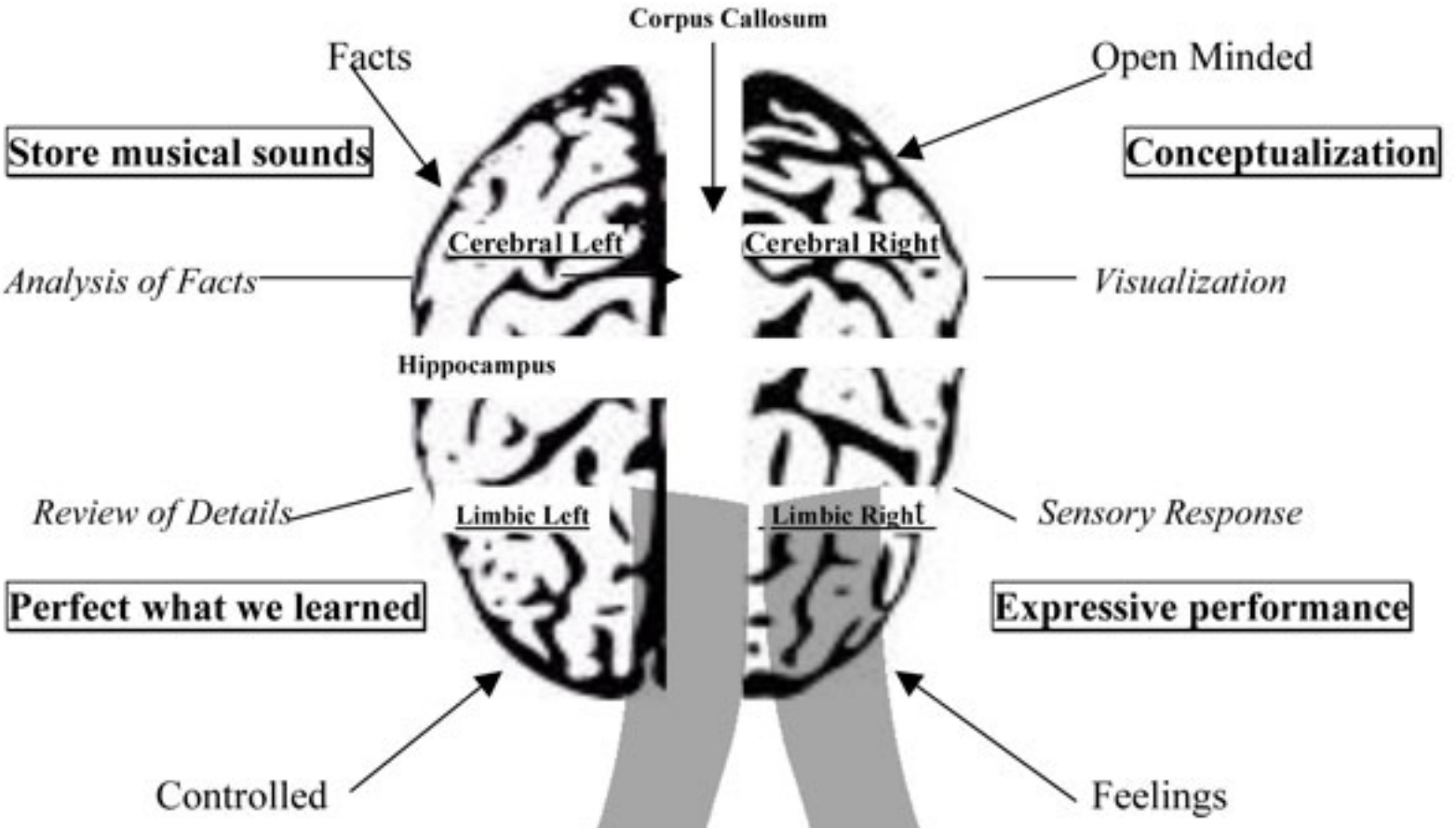
When we use the logical left side of our brain to play jazz, we tend to play what we know. We play a jazz line that has been practiced and we know will fit the chord or chord progression. This cannot be called jazz improvisation.

Jazz improvisation is to play *what we do not know*. It is playing spontaneously a line that we have not practiced. The right side of the brain allows one to play with more confidence and to play what we hear rather than what we manufacture by manipulating the theory of music. The right side allows us to take chances and trust ourselves. The question *now is this*: how does one teach a student to practice to learn to play what they do not know?

This book aims is to help a teachers and students create an experience from which this kind of learning can take place.

WHOLE BRAIN LEARNING DESIGN MODEL

Whole-BrainProcess



To learn to play jazz one must process all the information gathered through all parts of the brain. This is an important concept to realize. We store all the sounds we hear in the cerebral left quadrant of the brain. This part of the brain is like a computer in that it only stores the sounds to be used. The corpus callosum allows one to assess these sounds from the cerebral left side of the brain to be used in the cerebral right side. This is the part of the brain that puts the pieces of the puzzle together. In music it allows one to conceptualize and understand, for instance, that Dm7 and G7 make up the key center of C Major. After learning takes place as a result of processing information in both the cerebral left and cerebral right side of the brain, we now direct all that has been learned in to the limbic left side of the brain. In this quadrant one practices to perfect what has been learned in the cerebral half of the brain. For the final step all that has been learned and practiced now is available to the limbic right part of the brain to be used to make a musical response to what is heard. Here is where music is made which is why we say one hears music before it is played on the instrument.

The transfer of information from one side of the brain to the other side is called a Mental Cognitive Shift. Even after he became deaf, Beethoven was still able to compose music. He found it possible because he wrote what he heard in his head. Because one's ears no longer hear music does not mean the brain does not hear and produce music. Beethoven was double dominant and was able to use all parts of his brain. This is what we should hold as our goal: ***teach one to use all parts of the brain while making a musical decision.*** The musical thread should run through all parts of the brain to reflex all the specialized functions. This chart identifies what goes on in the brain musically and describes the whole-brain approach that weaves the musical thread through all parts of the brain to produce the finished

BOOK OBJECTIVE

When I am asked if jazz can be taught I respond, "***No*** it cannot be taught." However, I qualify that response by adding, **"jazz can be learned**." As the saying goes *" There is so much jazz education and so little jazz."* So to play jazz one needs to develop a creative skill.

Learning to play jazz is a participatory experience. All the older jazz players learned by playing jazz in nightclubs, bars, gin mills, and jazz sessions. This is the environment that produced many great jazz players. No one taught these musicians how to play jazz. They learned by doing.

One must learn jazz by participating in an environment or an experience from which learning will take place. The responsibility of a jazz educator is to create this environment for students so one might obtain the desired learning.

This book's goal is to help create this learning environment from which a student can benefit from the natural participatory experience that was available for jazz players over the decades. One must fulfill the individual needs of each student.

Teachers must become facilitators of knowledge and allow students to go beyond playing memorized chord changes, and unconnected jazz licks. Students need to go deeper in the learning process and respond in a holistic way in order to craft worthy performances. It should be our goal as educators to help expand the notion of learning and teaching. Learning is not always a direct result of teaching. Learning takes place as a result of an experience and some times in spite of teaching. As stated earlier, creating music is a participatory experience. Like the old jazz players of the 30s – 40s we learn by doing.

Everyone has the capacities to learn to play jazz. Jazz educators are struggling because of our inability to allow a student to hear a jazz phrase and respond by playing what is heard. Jazz education needs a complete makeover. We should not assume that learning is a memorization of musical facts (Theory of Music). Learning is playing with understanding and applying usable knowledge. This is what can be called meaningful learning. Music theory without an application is not connecting meaningful knowledge. A teacher should only teach a student what he or she can immediately use and connect to previous learning. If students cannot use the knowledge they will forget it and, when needed, it will have to be retaught.

This book is designed to expose students and teachers to an alternative way of teaching jazz so it takes place in a more meaningful way. Students need to learn to make musical choices and turn what may be called surface rote knowledge in to meaningful usable knowledge. What is learned has to make music sense to a student. Students need to respond creatively, spontaneously and emotionally to what is heard in their mind. Jazz playing is not how one *thinks* it should sound, but should be how one *feels* it should sound.

This publication identifies three major teaching/learning elements:

- Materials to be used to create a learning experience.
- A suggested approach to bring about the desired learning outcomes.
- How to create for the student the opportunity to apply what has been learned.

LESSON FORMAT

(Suggested lesson format to be used with the *Intervalic Improvisation* by Walt Weiskopf)

A student must first develop an understanding of how to extract the triad pairs from the scale. What two triads from any given scale conveys the tonality of the scale or chord? Once students develops this understanding, they will be well on their way to learning this approach and begin to practice to perfect what has been learned. Walt Weiskopf explains this concept in depth on pages 4 – 19. After a student demonstrates the understanding of the knowledge they should be referred to pages 20 – 23. These pages are important in that they provide for the student a complete table of triad pairs. These pages are a reference point, a musical dictionary if you will, defining the concept of using the intervalic improvisation approach.

Pages 20 -23 should help develop the basic understanding of what needs to be practiced to build usable meaning of the concept. The first table, labeled church mode derivations gives one the triads to be used on the standard 117, V7, I chord progression with its key center. Once students can demonstrate the understanding of how these two major triads are to be used to convey the tonality of the progression, they now need to practice to perfect what has been learned. One needs to add these sounds in their mind to play what is heard and not written.

On pages 24 – 37 Walt provides examples of how to use the two major triads a whole step apart from the church modes. These exercises are to be used to develop one's ear to hear tonality and store the sounds in the brain (tonal factory, cerebral left Quadrant).

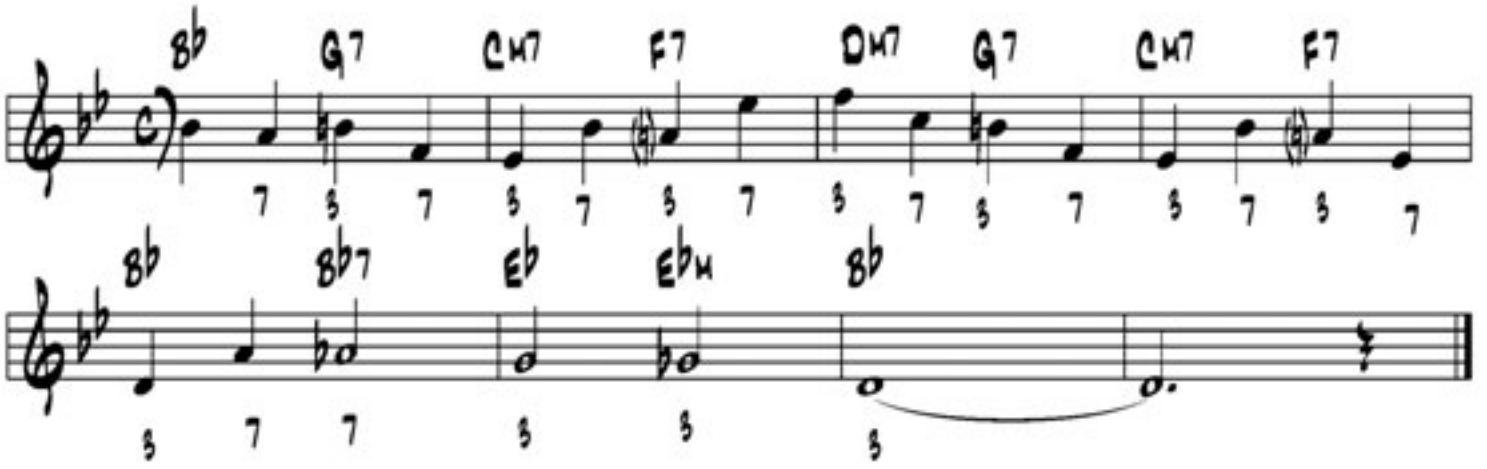
Once a student can comfortably demonstrate their understanding and playing of the first triadic pair exercise (F,G) they should be able to play pages 24 and 25 without the printed page These pages take the first triadic pair exercise and repeat the pattern progressing down chromatically. Students should only use these pages as reference pages. The performance of the prepared lesson should not be read from the book but should be played without the printed page by knowledge and understanding. This should be the lesson format for the entire book.

Another important section of his book unfolds on pages 94–135. Walt treats the student to playing written intervalic improvised solos demonstrating how to utilize the intervalic concept. All the solos here are written on tunes such as: "Impressions," "All of Me," "Get Happy," "Locomotion," "Sweet Georgia Brown" etc. These are examples of how this concept can be applied. After playing the written solo, the student should try improvising using this concept over the same chord changes. Remember, these are chord changes of standard jazz tunes. The more one plays, the more quickly the student will learn the application of this concept.

The important concept here to remember is: developing knowledge, developing an understanding of knowledge and ultimately applying the knowledge in performance. For learning to take place, one must progress smoothly through this mental process.

Once a student can comfortably sing and play this exercise of 3rds the next step can be taken. Now write in all the 7ths that lead to the 3rds as in example 2 below.

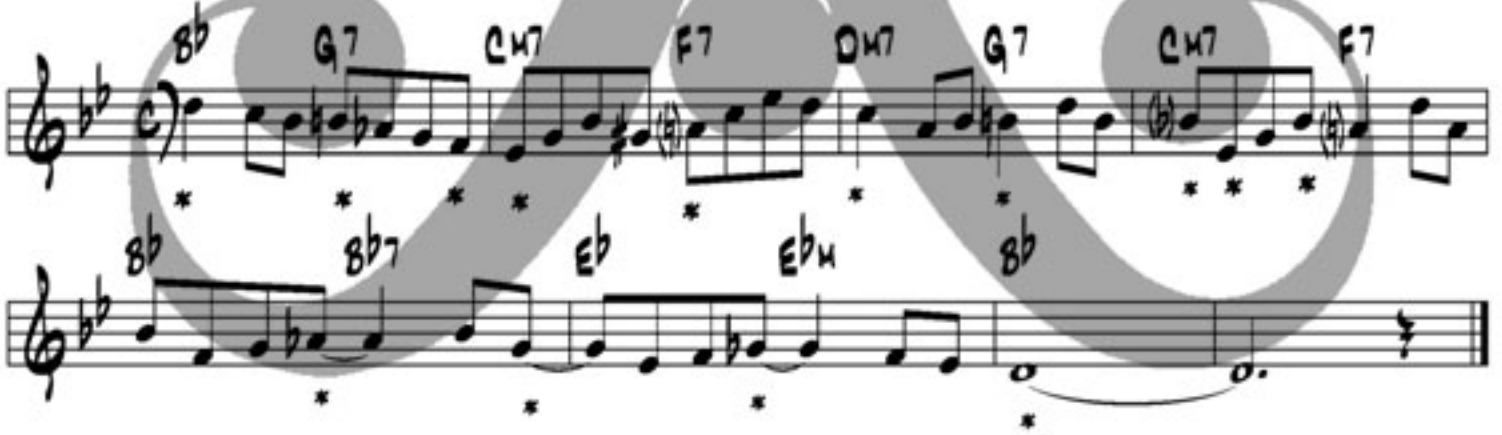
Example 2



To process and store all these sounds in one's mind, play and sing this exercise of 3rds and 7ths written on rhythm changes with a rhythm section. The exercise should now take on the sound of a line with forward motion and line direction.

The next step in this learning experience is to have the student connect each target tone (3rds and 7ths) with the scale tones called approach tones. See example 3 below.

Example 3



All the 3^{rds} and 7^{ths} are starred so the skeleton becomes more visual. Notice all the approach tones leading to the 3^{rds} and 7^{ths} are scale steps and a few chromatic steps. This line as written may be generic in sound, but it gives the student a closer look and feel for the concept. With much practice the student will develop the improvisational skill to create a more mature jazz line.

To learn more about this concept of building jazz lines using target and approach tones, refer to the book published by Jamey Aebersold called **"Target and Approach Tones by Joe Riposo."**

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Level 5 Some additional scales and materials to explore with more advanced students.

- Altered Scales
- Synthetic Scales
- Lydian Chromatic Concept
- Pentatonic Scale
- Lydian and Phrygian Scales
- Harmonic Structure and Coltrane Substitutions
- Lydian Augmented and Lydian Dominant Scales
- Harmonic Anticipation - Etc.

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LISTENING ASSIGNMENT

From its earliest inception, jazz was earned as an aural experience as aspiring musicians listened to the jazz masters. This is still an essential learning activity for all students. Continuing with this aural experience students need to learn to listen to professional jazz performers with a purpose. Listen for the notes these players favor in their solos. What kind of hinge tones are used to connect chords together? How do they use target and approach tones. What kind of a chord progression is used? Listen for the quality of tone. What inflections are used? Listen for the player's articulation style. Listen to how for how the artist shapes his melodic lines. Does the line have direction and forward motion? These are just some of the questions students should be asking themselves when they listen to accomplished jazz artists.

Here is a sort list of some of the jazz masters one should listen to:

SAXOPHONE PLAYERS

Ben Webster	Cannonball Adderly	Michael Brecker
Dexter Gordon	John Coltrane	David Liebman
Gene Ammons	Stan Getz	Sonny Stitt
Benny Carter	Gerry Mulligan	Sonny Rollins
Art Pepper	Bud Shank	Grover Washington
Paul Desmond	John Griffin	Lee Konitz
Charlie Parker	Wayne Shorter	Branford Marsalis
Lester Young	Jerry Bergonzi	Nick Brignola
Benny Golson	Jimmy Heath	Jackie McLean
Rick Margitza	Vincent Herring	Ralph Lalama
Phil Woods	James Moody	Hank Mobley

Other saxophone artists can be considered with instructors' approval. Students should not limit their listening experience to only jazz saxophonists. Much is to be gained by listening to jazz vocalists, trumpet, trombone, piano players etc.

- Listen for the bass note played by the bass player and try to sing the arpeggio or scale that sounds right. This should help to determine the chord qualities.

Repeat this process (listen, sing, play, write) until you have the solo completely notated. You need to realize that most tunes follow basic chord changes.

Example: 117- V7 - 1 or 1117 - V17 -117 - V7 - 1.

Key center of C:

Dm7 - G7 | CMaj7

CMaj7 - Am7 | Dm7 - G7 | CMaj7

You should also be aware of some possible chord substitutions that can be used. Jazz players may play a Db7 in place of a G7 before going to CMaj7

Possibility 1.

Db7
Dm7 - G7 | CMaj7 or Eb7 Em7 - A7 | Db7 Dm7 - G7 | CMaj7

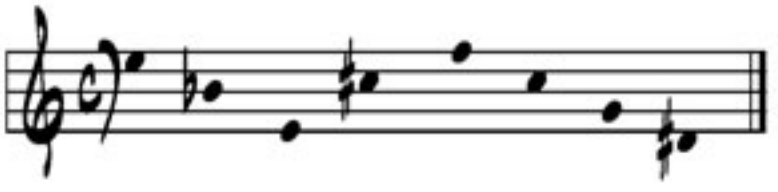
Possibility 2.

AbMaj7 - DbMaj7
Dm7 G7 | CMaj7

Possibility 3.

STEP 4.

If you encounter difficult rhythms you may consider the following procedure. Write on your blank music paper in the measures only the pitches by using (note heads only).



If your CD player or program in the computer allows, you may need to slow the speed of the recording to hear the notes and rhythms. Under each measure write the rhythm pattern.