

**STEPS  
TO THE  
REAL BOOK**

**A BASIC JAZZ PIANO TEXT**

**BY JAMES LEVY**

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# PREFACE

## "FAKE BOOKS AND REAL BOOKS AND CHARTS (OH MY!)..."

Once upon a time, before the rise of the electric guitar, back in the dim dark past of the early 1900s, Americans out for a night on the town were serenaded by live groups of musicians. With names that often included the word "Orchestra" or "Band," these groups had not only piano, guitar, bass and drums, but trumpets, trombones, saxophones (who "doubled" on clarinet and flute) -- and some groups even sported violins. In order to play the music of the day these orchestras had arrangements, sometimes bought off the shelf--these were called "stock" arrangements or "stock" charts --but also sometimes arranged specifically for the group itself.

Duke Ellington was the preeminent example of a band leader/arranger/composer/genius. Groups that specialized in the blues often extemporized songs that, in turn, became fixed arrangements, for example Count Basie's "One O'clock Jump."

In order to augment their repertoire, groups would also obtain "Fake books," books of songs in lead sheet format. These books were often published illegally, without obtaining and paying copyright, and, in a hurry to get the latest hits out there, rife with mistakes. The musicians would then "fake" like they had an arrangement and derive parts from the lead sheet, also adding their own vocabulary, that would correspond to their regular role in the ensemble.

Then, sometime in the 1960s, in Boston, Massachusetts, some people decided they would make The Real Book. As they say in their Forward (quoted here without permission)

*The Real Book is the answer to the fake book. It is an alternative to the plethora of poorly designed, illegible, inaccurate, badly edited volumes which abound on the market today...The Real Book was painstakingly created because the editors care about music and want it to be well played and fun to play by you, the musician. "Enjoy!"*

The Real Book, while being an illegal, underground publication, found its way around the world and was and is used widely by students of jazz. While the consensus is that they did a very good job of selecting tunes to put in "The Real Book, the book does indeed contain errors, in a few cases it's almost as if they made up a new song ("Blue Train" by John Coltrane). It spawned the Real Book 2, 3 and a host of other illegal imitators.

In 1988 "The New Real Book" was published by Chuck Sher. This legal book contains both lead sheets and arrangements and is a big step up from The Real Book in terms of accuracy, in many cases the composers themselves reviewed the lead sheets. Then in 2004, Hal Leonard came out with a legal version of the classic The Real Book 6th edition, basically the same tunes as the original, but with the mistakes corrected.

One approach to becoming a jazz piano player is to learn how to interpret lead sheet format such as is found in The Real Book. Another approach is to work on playing by ear. Steps to the Real Book helps to foster both approaches.

# SCOPE OF THE BOOK

•This workbook is intended to help a pianist who already has basic technique and music-reading ability to learn to improvise and to use "The Real Book."

This book's helps you learn:

- To play by ear
- To read and perform jazz rhythms
- To construct the basic chords and scale/mode forms used in jazz.
- Basic harmony and to develop the ear and musical imagination through
  - 1) playing simple folk music in a variety of keys and styles and
  - 2) singing melodies using solfege.
- To play a blues progression.
- A theoretical framework for learning chord progressions.
- To play the most common chord voicings
- To begin to improvise.

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# **INTRODUCTION TO STEPS TO THE REAL BOOK**

## **STUFF TO READ AND THINK ABOUT BEFORE YOU SIT DOWN AND PRACTICE**

While it is helpful to first look through the entire book for an overview, much of what is contained here are concepts, activities and exercises that will only be fully understood after hours of practice at the keyboard. Also, despite the fact that the book is full of suggestions as to how to spend your practice time, it is important to always take the initiative, to think up new exercises and gnu variations.

This is a workbook, write in it, add to it!

One of the most important things for someone who wants to play Jazz is to develop a good practice routine. Below is an outline that covers five important practice areas. To cover it all in an hour, I would split the time up as indicated. Every practice session doesn't have to have all 5 parts, but try to cover all 5 most of the time.

<b>I. Technique -- warm ups, exercises and scales</b>	<b>10 min</b>
<b>II. Theory -- rhythm and circle of fifths</b>	<b>15 min</b>
<b>III. Pieces</b>	<b>10 min</b>
<b>IV. Tunes</b>	<b>15 min</b>
<b>V. Improvisation</b>	<b>10 min</b>

A "Piece" is something that either has every note written out or, even if it isn't fully notated, is something that you are working on playing basically one way. For aspiring Jazz students, as you begin to work with lead sheet format, count that time as working on a "piece," since the new challenge of reading and forming chords while playing the melodies with a true swing feel is enough to keep you occupied. In general, the "piece" part of your practicing has you working on the most difficult material.

The "Tune" part of your practicing has you dealing with a melody and chord progression -- both of which are subject to interpretation and change. Typically you will use material that is easy enough for you to play by ear and to play in a variety of keys, styles and textures. Four different versions is a good target.

"Improvisation," at least the standard type of improvisation in Jazz and popular music, means creating melodic ideas over a repeating chord progression. At first most of the improvisation will happen in the right hand, while the left hand keeps the chord progression.

In order to really jam using a "Real Book," it is not enough to simply learn to read the chord symbols and to know how to swing. You must also be able to play by ear and be familiar with the basic conventions of Jazz harmony.

Learning to improvise means that two things must be developed: the creative imagination and the ability to play by ear. Playing by ear is developed by singing (esp. with the solfege syllables--do, re, mi...), playing tunes in different keys and "picking out" tunes on the piano. The creative imagination is developed every time you learn a new song (story) and every time you tell an old story with a new twist. Taking a solo in Jazz has traditionally been described as "telling a story."

Tenor saxophonist Illinois Jaquet, in an interview for Dizzy Gillespie's memoirs "To Be Or Not To Bop," offers this insight;

You see in Louisiana, where I think that Jazz was born--I was born in Louisiana, so quite naturally ever since I can remember, we've been listening to Jazz music--From the time when they played it right from the ear because there was no time to study music, I imagine they just played...Learn that song, learn it fast learn it slow, play it in waltz time. It was the same song... (To Be Or Not To Bop, p. 146)

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## **THE PRACTICE ROUTINE: LIKE LEARNING A LANGUAGE...** **(ANALOGIES 001)**

Learning to play Jazz reminds me of learning to speak a foreign language. Most of the activities that go into learning another language have their counterpart in Jazz study. One of the most important activities for language students is listening to a native speaker; some students will even spend a semester or year abroad. For a student to gain an authentic Jazz sound, immersion in Jazz listening, both live and recorded is essential. One Jazz player I know said that he thought it was beneficial to listen to the same record every day for several weeks until you can "hear the record in your head."

### **I. Technique is like diction**

Simple technique exercises such as scales and Hanon have their counterpart in the phonetic and diction drills that students must do in order to learn foreign sounds. Just as we exaggerate pronunciation when we do diction exercises, we exaggerate finger motions in many technique exercises. In terms of playing by ear, part of the technique is to be able to sing what you play.

### **II. Theory is like grammar**

One of the most important requirements for beginning fluency is pattern drills. A linguistic example would be repeating, over and over, "I am, you are, he is, etc." In music, rather than matching the same verb with all the different possible subjects or tenses, you match the same musical idea (chord, scale, riff or song) with all twelve keys.

Practicing in all keys has been part of the keyboard improviser's training for centuries. Two of the most important "classical" authors on the subject, Carl Czerny and C.P.E. Bach make this point repeatedly in their treatises. The importance of this activity can only be appreciated after some degree of mastery. In addition to learning the specific materials in all keys, one also learns the general feel of each key.

When a idea is played in only one key, that idea may be remembered a variety of ways, by sound, by feel, or even by the names of notes. When an idea is learned in all keys it then becomes more efficient for the mind to remember it in terms of sound -- the most musical way of thinking. Then through intensive practice over time, a layer of cognition is developed which functions to put the idea into the specific key, without any conscious, mechanical thought on the part of the performer. Essentially, you think like a singer.

Just as grammar reveals recurrent patterns of deep sentence structure (e.g. Subject-Verb-Object), study of harmony reveals recurrent chord progressions (e.g. I IV V or ii V I).

### III. A Piece is like a Poem

Reading compositions is another activity common to both learning Jazz and language. Like actors, who in order to learn their lines practice paraphrase, Jazz players can adapt techniques and concepts to their own playing. The Jazz practice of "quoting" is the clearest example. This is when a Jazz musician interpolates a recognizable musical fragment (such as a nursery rhyme or operatic theme) in the middle of an improvised solo, often with humorous effect. Prime practice material for Jazz musicians includes Broadway and popular songs, Ragtime (for left hand development) and impressionistic and modern piano works (for chord voicing and harmonic concepts). For this part of your practicing you'll obviously have to go outside this book.

### IV. A Tune is like a Fairy Tale...

...in the sense that even though many different versions exist, you can still recognize the story instantly, even when the storyteller is using their own words ("Dag man, you can never tell what kind of food you're going to get on the road," sighed Goldilocks as she gingerly tasted the first bowl..."). Of course there is also the use of stock phrases and licks (see, for example, the opening 4 words to the preface of this workbook). One of the main features of your tune practice is playing these tunes in a variety of keys. While the ability to play in all keys has only been a central part of Jazz since Bebop, playing by ear (closely related to, but not the same as, improvising) has always been essential to playing Jazz.

Transposition, playing tunes in different keys, is an excellent way of developing the ear. The process should really be a matter of orienting oneself tonally in the new key, then simply thinking the song. Professor Ron Elliston (University of Maryland) puts it like this, "You learn a tune in a particular key, then improvise it in another key." This statement underscores the concept of hearing the music in your head, then being able to realize it through your instrument.

- A pianist who cannot play a simple tune by ear, such as "Michael Row The Boat Ashore," is not ready to try and improvise Jazz.

You should be able to sing the melody (more or less in tune) to any song you play.

### V. Improvisation is like conversation

When you converse in language class, typically the teacher doesn't just say "talk," but rather a subject, such as "the weather" can be assigned. This enables the student to prepare by studying the appropriate set of vocabulary choices, and think about what they want to say. Adjunct topics, such as what clothes to wear in what kind of weather may be considered. In Jazz improvisation, the format is also usually circumscribed: a chord progression is given and some kind of groove, for example, "medium swing," is set.

Finally, just as when we study a language, when we study Jazz we can differentiate between practicing for improvisation and the actual act of improvising. All the pattern drills, grammar/harmony study, etc. are designed to move material from the conscious (limited) mind to the unconscious (unlimited) mind.

The language student must eventually dispense with translation and begin to think in the new language. The beginning student thinks, e.g. "Jolie" = "Beautiful," in

French." For the bilingual speaker, "Jolie" is a concept unto itself, as subtly different from "Beautiful" as Paris' fashions are from New York's. A beginning Jazz student may translate quasi-verbal thoughts into musical ones; a thought like "O.K. now I'll use the ii-V lick that I practiced," will then be translated into the musical notes. The fluent Jazz player will simply think and play the notes.

Initially, a Jazz player must consciously over-use licks and improvisational techniques in order to integrate them smoothly into their playing. Bill Frisell, a prominent Jazz guitarist, presented a student with a book of transcribed solos with instructions to practice them in all keys until lightning fast, and then to "forget" them.

### BEYOND THIS BOOK

Playing along with recordings or the radio is good practice. Go to jam sessions, watch the pianist's hands, sit in if you can hang with the music.

An important advanced practice activity is to learn solos from recordings. Even the masters had riffs, phrases and even whole solos that they repeated note for note, or almost note for note, in performance. As a prelude to improvising your own solos, you may compose and possibly notate short solos over tunes that you are practicing.

Other materials needed for practice, besides "The Real Book," or some other fake book or collection of lead sheets, are Jazz recordings or videos, books of transcribed solos, books on Jazz and play along records. Jamey Aebersold Jazz Inc. is the pre-eminent creator of Jazz play-alongs, 1-800-456-1388 or [www.Jazzbooks.com](http://www.Jazzbooks.com). To begin, I recommend Vol. 1 (more for the booklet which has a variety of essays on improvisation, than the CD) and Vol. 54 "Maiden Voyage."

Take some time and read the biographies and autobiographies of the people who created this music. My favorites are the ones written by the musicians themselves.

Finally, as trumpeter Wynton Marsalis has put it, "Jazz is a music based on freedom." It is certainly the style of music that gives the most freedom during performance to the musician, but this freedom is dependent on the performers listening to each other and performing within the established roles for their instruments. Learning more about playing Jazz and about the lives of Jazz musicians may influence you in far ranging aspects of your life.

### SOME OF MY FAVORITE BOOKS ON JAZZ:

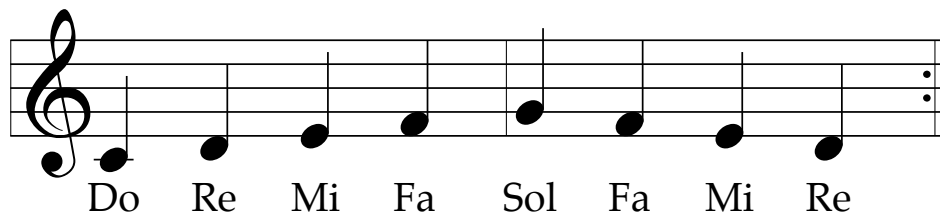
*Bird Lives* by Ross Russell  
*Jazz Is* by Nat Hentoff and Nat Shapiro  
*Notes and Tones* by Art Taylor (drummer Art Taylor)  
*Lester Young/Lester Young Reader* by Lewis Porter; *Jazz*  
*Hot and Hybrid* by Winthrop Sargeant (an old one, but a good one);  
*To Be Or Not To Bop* by John Birks Dizzy Gillespie with Al Fraser  
*Miles* by Miles Davis; *Ascension: John Coltrane and His Quest* by Eric Nisenson  
*Duke Ellington in Person: An Intimate Memoir* by Mercer Ellington & Stanley Dance  
*Swing That Music* and *Louis Armstrong: In His Own Words* both by Louis Armstrong  
*The Lydian Chromatic Concept of Tonal Organization for Improvisation* by George Russell  
*Jazz Masters of the 30s* by Rex Stewart; *Living With Music* Ralph Ellison  
*Jazz Harmony* by Andy Jaffe is my favorite book on that subject  
*Effortless Mastery* by Kenny Werner  
(a different kind of book, on the psychology/spirituality of playing and practicing);  
*Early Jazz* and *The Swing Era* by Gunther Schuller

## PRACTICE OUTLINE: I. WARM UPS

The main function of these warm ups is to establish the connection between your fingers and the keyboard and your ear and your voice.

### EVERYTHING YOU PLAY SHOULD BE SUNG AT THE SAME TIME

You begin by using the simplest musical materials, five notes: Do, Re, Mi, Fa and Sol, in the key of "C," C,D,E,F, and G. Before you get creative, just play the notes up and down and sing along, "Do, Re, Mi, Fa, Sol, Fa, Mi, Re, Do." Make sure that your voice is in tune. When you breath, try and fill up yourself with air.



You will worry about using your wrist later, for now keep your wrist still and relaxed: it should be an uphill slant from your wrist to your knuckles. remember what Mr. Hanon said **Lift the fingers high and with precision, striking each note distinctly."**

Remember, this is like a diction exercise, exaggerate the finger motion, make it as big as you can, while keeping the wrist still and relaxed.

Once you are sure that your voice is in tune and your fingers are working well, get creative, move around freely in this limited musical space. You can drop saying the syllables and just scat. Every now and then you might try and do **"touch and sing,"** don't actually strike the keys, but just touch them and sing the note that the keyboard should have made. You can also do this with a drawing of a keyboard or on any surface and just imagine playing a keyboard.

[www.JamesLevyMusic.com/downloads](http://www.JamesLevyMusic.com/downloads)  
**Quicktime movies this exercise is Movie 1.**

Part of the philosophy of this exercise is that we can enjoy creative freedom even within strict boundaries. Igor Stravinsky makes this point in "The Poetics of Music, "My freedom will be so much the greater and more meaningful the more narrowly I limit my field of action and the more I surround myself with obstacles." (p.68) If we move about in a very restricted area, we can fully explore the area, give us too much room and we may wander aimlessly.

•••••You are warming up:

- 1) your fingers,
- 2) your voice,
- 3) the part of your brain connected to your fingers,
- 4) the part of your brain connected to your voice,
- 5) the parts of your brain that connect 3 & 4.

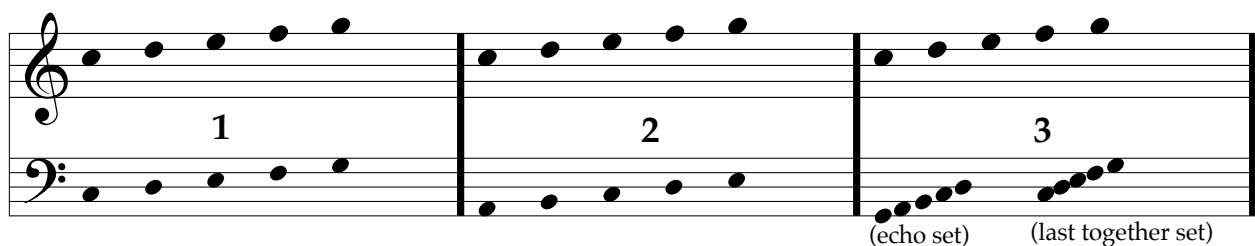


## VARIATIONS ON THE BASIC FINGER/VOICE WARM-UP

1. Just do one hand at a time -- alternately, do some left hand only practicing
2. Hands back and forth, either play a short phrase in one hand and echo it the other, or else just switch hands as you play continuously.
3. Play off of Do, re , mi, fa, sol in the keys of Bb, B and Db -- that gives you all the possible combinations of black and white keys on the outer notes. Your wrist should remain straight throughout.
4. Palm down, play with the bottom of your palm actually touching the part of the piano below the end of the keys. This helps you focus on just using your finger muscles, by isolating them from your wrist and arm muscles.
5. Keep your thumbs down (on G in the left hand and C in the right hand) and, instead of the same notes in each hand, play the same fingers.
6. Rhythmic combinations. In this variation you don't improvise, instead you play the notes straight up and down (the way it's literally written in the example), but you play it in the durational pairs listed below, first in eighth in the right hand and whole notes in the left hand etc...

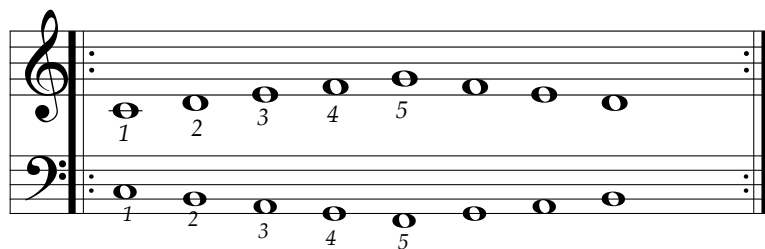
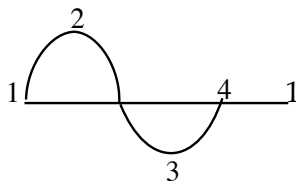


7. In the Echo/together variation you take the basic idea of playing with five notes and put it into a 3-part form. For each of the three sections, the RH uses Do, re , mi, fa, sol to play a series of short motto-like phrases, each of which the LH echoes using the notes given below. Each the section concludes with both hands playing one longer (more eccentric) phrase together--in unison (parts 1&3) or 10ths (part 2)



Finally, something for the wrist, wrist flexes. While sustaining each pair of notes (you can use any notes you want), move the wrist all the way up on beat 2, all the way down on beat 3 and back to the normal position (below the knuckles) on beat 4. Play the note on beat 1 with a big finger stroke.

*graph of how the wrist moves by beat*





## JAZZ COUNTING

- In Jazz, eighth notes usually are played unevenly; these are called "swing eighths." The second note will come some time after the middle of the beat. Exactly when depends on the tempo, the style of jazz and the individual player, but some of the time it is like a triplet feel, with the second eighth note coming with the third triplet. Swing eighths are also played with a large number of subtle accents and shadings. Listen very closely to the way eighth notes are phrased on jazz recordings. Some notes, which are played almost inaudibly, are called "ghost notes" and are notated in parenthesis.

For playing Jazz, counting a constant 1 & 2 & is not a good idea because then what you are saying is always the same and it never breathes. Ideally, your counting should sound like the rhythm it is supposed to represent. In order to achieve this follow these rules:

1. EVERY NOTE SHOULD HAVE A SYLLABLE ASSOCIATED WITH IT.
2. DON'T SAY "AND" IF THERE IS NO NOTE ON THE UPBEAT.
3. ON BEATS WHERE THERE IS NO NEW ATTACK, WHISPER THE NUMBER.
4. ON BEATS WHERE THERE IS NO NEW ATTACK, IF THE BEAT WAS PRECEDED BY A NOTE ON THE "AND," DON'T COUNT THE BEAT OUT LOUD.

Rule 4 applies when an eighth note is tied over or when a quarter note or dotted quarter begins on the "and."

The first example (top of next page) would be counted: "1, 2, 3 and, and, 1, (2), (3), (4)." Beat 4, m. 1 is not counted aloud because of rule 4. Rule 4 especially applies in the last example, which is counted: "(1) and, and, and, and, and, and, and, 3 and."

There are three steps in doing these exercises:

1. Being able to count the rhythm as described above.
2. Counting the rhythm and keeping the beat with your left hand.
3. Playing the rhythm in your right hand and counting while keeping the beat with your left hand.

The third step sometimes is a problem because the left hand (lacking independence) involuntarily makes some of the right hand's rhythmic attacks. Note that the right hand and left hand (steady beat) rhythms can be added up into one composite rhythm.

The image shows three measures of music. The first measure has a right hand (R) eighth note on the first half of the beat and a left hand (L) eighth note on the second half. The second measure has a right hand (R) eighth note on the first half and a bass (B) eighth note on the second half. The third measure has a right hand (R) eighth note on the first half and a bass (B) eighth note on the second half. The notation uses stems and flags to indicate the timing of the notes.

Note that a beat represents both a point in time (attack) and a duration.

The diagram shows a musical staff with four eighth notes. The first note is on the first half of the first beat. Below the staff, a dashed line is labeled '1-----2-----3-----4-----1'. A line points from the text 'BEAT 1 POINT OF ATTACK' to the first note. Another line points from the text 'BEAT 1 DURATION' to the first segment of the dashed line.

**EXERCISE 2A** PLAY 4/4 AND 3/4 EXAMPLES WITH BOTH SWING AND EVEN EIGHTHS.

THE USE OF NOTATION WITH SLASHES RATHER THAN NOTEHEADS, IS SOMETIMES FOUND IN LEAD SHEETS. (TYPICALLY THERE ARE CHORD SYMBOLS WRITTEN IN AS WELL).

THE FIRST EXERCISE ON THE 2ND LINE\* IS QUICKTIME MOVIE 2.

The exercise consists of 16 staves of music, each with a repeat sign at the end. The staves are organized as follows:

- Staff 1: 4/4 time, quarter notes and eighth notes.
- Staff 2: 4/4 time, quarter notes and eighth notes. A star symbol is placed above the first measure.
- Staff 3: 4/4 time, quarter notes and eighth notes.
- Staff 4: 4/4 time, quarter notes and eighth notes.
- Staff 5: 4/4 time, quarter notes and eighth notes.
- Staff 6: 3/4 time, quarter notes and eighth notes.
- Staff 7: 3/4 time, quarter notes and eighth notes.
- Staff 8: 3/4 time, quarter notes and eighth notes.
- Staff 9: 3/4 time, quarter notes and eighth notes.
- Staff 10: 3/4 time, quarter notes and eighth notes.
- Staff 11: 6/8 time, quarter notes and eighth notes.
- Staff 12: 6/8 time, quarter notes and eighth notes.
- Staff 13: 6/8 time, quarter notes and eighth notes.
- Staff 14: 4/4 time, quarter notes and eighth notes.

*For 6/8 examples play dotted quarters in the left hand*

**DON'T FORGET TO WRITE YOUR OWN RHYTHMS!!!**



# APPLIED THEORY II B: GROUPS OF NOTES

## (SOLFEGE SYLLABLES; THE MAJOR SCALE; THE CIRCLE OF 5THS; CHORDS)

In music, as in language, fluency comes with learning to think in groups. Through practice and repetition, associations are made so that the groups are formed without conscious thought--for example, nobody thinks about word order when engaged in conversation.

In music we refer to pairs of notes as **intervals**. Interval refers both to the distance between the notes and to the pair of notes themselves; that is the interval (distance) between e.g. middle "C" and the "C" above it is called an octave (8ve) and, when the two notes are played together, we say we are playing an octave.

The smallest interval on the piano is a **half step**, also called a **minor second**. This is the interval from one key to the closest key whether it is white or black. "B" to "C" and "E" to "F" are the two pairs of white keys that form half steps. Two half steps equal a **whole step**. **Scales** are formed from specific patterns of whole steps, half steps and occasionally "one and a half steps."

In order to play a major scale on the piano using only white keys, one must start on the note "C." Picturing that, it can be seen that the major scale follows the interval pattern;

DO(W)RE(W)MI(H)FA (W) SOL(W)LA(W)TI(H)DO

The whole step symbol between fa and sol is raised to emphasize that the major scale may also be understood as being two identical **tetrachords**, separated by a whole step. The tetrachord was the basis of the ancient Greek musical system and, since it contains only four notes and three intervals, is more easily learned than the major scale.

Remember: using the black and white keys together, one can begin any type of scale--or melody--on any note.

### SOLFEGE CHROMATIC FORMS

#1=Di	b2=Ra	#2=Ri	b3=Me	#4=Fi	b5=Se	#5=Si	b6=Le	#6=Li	b7=Te	
Do	Re	Mi	Fa	Sol	La	Ti	Do			

## FIRST CIRCLE OF 5THS EXERCISES

As an exercise, start on "C" and play an ascending major tetrachord; Do, re, mi, fa. Then make fa=do [read = as becomes] and play another ascending tetrachord. Repeat this process (transposing down an octave when necessary) until you return to Do = "C." All the "Dos" taken together form a pattern called the circle of fourths (or the circle of fifths since e.g. "F" is a fourth above "C" but a fifth below it), and takes us through all twelve keys. Thus, whenever we learn how to build a scale or chord, or even a song, we practice it around the circle of fifths, building it first on "C" then "F" then "Bb" etc.

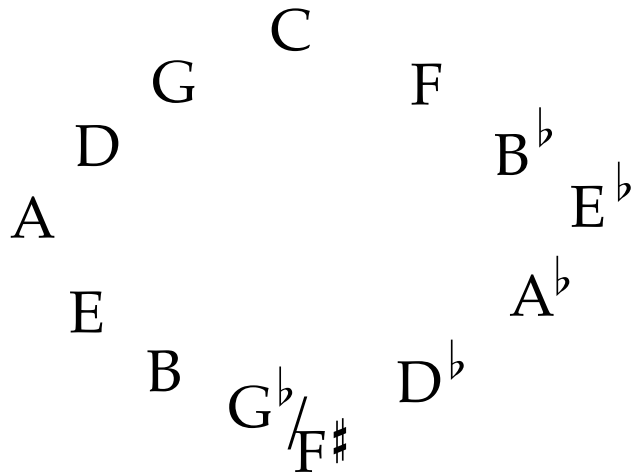
Ex. (II B)

"F" was "Fa,"  
becomes the new "Do" and so on...

Do Re Mi Fa      Do Re Mi Fa      Do Re Mi Fa

**THE CIRCLE OF FIFTHS TAKES US THROUGH ALL TWELVE KEYS.**

**IT IS A GUIDE TO KEY SIGNATURES, AND THE MOST COMMON HARMONIC MOVEMENT.**



### THE CIRCLE OF 5THS/4THS

*Note: You may see the Circle written out in mirror image to the above version. This version is more helpful for understanding harmony, since the most common and important root motion is down a 5th.*

Following the same circle of fifths pattern play Do, re, mi, fa, sol. Then play Do, mi, sol, and you will have played a **major triad**. The following pages list triads, scales and other chords all of which should be eventually learned in every key.

Ex. (II B)

# THE MAJOR SCALE, CIRCLE OF 5THS AND KEY SIGNATURES

A B C# D E F# G# A

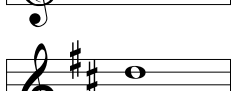
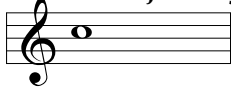
Illustration of how major scales share tetrachords

Eb F G Ab  
 Bb C D Eb F G A Bb  
 Bb C D Eb  
 F G A Bb  
 C D E F  
 C D E F  
 C D E F

D E F# G A B C# D  
 G A B C D E F# G  
 G A B C

Notice that each tetrachord appears in two different major scales, once as the bottom tetrachord, and once as the top tetrachord.

The Key Signatures, along with the "Do" for each major key.



Since the major scale is made up of two identical tetrachords, that means that the top tetrachord could also be the bottom tetrachord of another major scale.

In the key of C, for example, the top tetrachord (G, A, B, C), could be the bottom tetrachord of the G major, and the bottom tetrachord (C, D, E, F) could also be the top tetrachord of another major scale, F major.

As you look at the circle of 5ths, you can see that going in the direction of G major, the sharp direction, the change we always make is sharpening the next to top note, ti, to get the half step between ti and do. In the other direction we flat the top note of the bottom tetrachord to get fa, and to get the half step between mi and fa.

As you look at the Key Signatures, notice how the last sharp is always one note below Do (the last sharp added is Ti), and the last flat is a fourth above Do (the last flat added is Fa).

## MORE CIRCLE OF 5TH PATTERN PRACTICE

Play the following patterns around the circle of fifths. As soon as you can play a pattern fluently, try to always vary the rhythm/presentation--keeping your mind in an active, improvising state. You want your focus to be on how you are playing the notes, not what notes you are playing.

- Of course you should also make up your own patterns
- Note: te is ti flat

Singing using the solfege syllables as you practice patterns, jazz phrases and melodies around the circle of fifths, is very important. The solfege syllable is a label that you put on the note as you think/play/sing it. Eventually these labels become learned associations so that when you hear a melody you instantly recognize what the notes are. This is an important bridge to being able to play by ear, and to being able to play your musical thoughts.

### More Ex. (II B)





## USING THE METRONOME (JAZZ STYLE)

As you practice this material, it will help to develop your time-sense if you practice with a metronome. (If you don't own one, call 1-800-58 METRO or ebay) The click of the metronome can be taken to be any note value. Especially helpful for jazz practice is taking the click to be half notes falling on beats 2 and 4. To get the feel of this first try:

Now with the metronome set at around 60, insert a verbal "one" between clicks and continue as with the fingersnaps. For practicing chords use the texture and rhythm shown below. Since the rhythm has you resting on beat four, count aloud on that beat to make sure you are in sync with the metronome. Then count on the following beat one to reestablish the downbeat.

**If you have a real problem doing this you will need to spend some time on the more basic metronome exercises: Simply match the beat and count along, and be able to subdivide the beat.**

*The texture in the example, with the right hand broken and the left hand blocked exemplifies one of the most important aspects of chords: the notes "work" when played simultaneously and successively. Use this texture to practice chords around the circle of 5ths. For four note chords, play all 4 notes in LH. and RH.*

**This pattern, done around the circle of 5ths with the metronome is Quicktime Movie 3.**

**As you count, make sure that the click is still on 2 & 4 (that you haven't turned the beat around)**

The 2 and 4 are usually referred to as the "backbeat." As you listen to jazz, some of the time tap your finger or make some movement on the backbeat. As you watch jazz groups notice the drummer's hi-hat cymbals, they typically close on the backbeat. While this awareness of the backbeat is especially typical for jazz, it is a good discipline for any type of music. Playing with the metronome on the backbeat means that you the musician must be sure where beat one is, so that 2 and 4 then line up correctly. For fast tempos, hear the metronome as falling on beat 3 alone (you get this effect by getting it on 2 and 4, then doubling the rate of your counting). For 3/4, try hearing it as beat 2 or 3. Remember, **it don't mean a thing if it ain't got that swing...**

# CHORD TERMINOLOGY

The first note of a triad is called the **root** and gives the chord the first part of its name e.g. a major triad with "C" as its root is called a "C" major triad. Chords are typically built in thirds (every other note of a scale) so that chord tones are typically odd numbers; 3rd, 5th, 7th.

In Jazz notation, inversions are notated by placing the bass note after the Root; C/G = C major triad with G in the bass. The notation may also be used to indicate a combination of a chord with a note that is not a part of that chord, e.g. C/D (C major triad with a D in the bass, usually this chord would be played using two hands, though the notes can be arranged to be covered with one hand only.) There is no way of notating, with chord symbols, whether to use an open or closed voicing.

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*In the "classical" tradition, chords are notated with figures underneath a bass note. The figures stand for diatonic intervals above the bass note. Thus figures are always read in the context of the key signature, in contrast to "jazz" chord symbols, which are not, and which don't even need to be written near a staff. Figures in given here in parenthesis are usually omitted, that is a note without any figure is assumed to be the root of a diatonic triad, and the six-three figure is abbreviated as plain 6.*

Of the five triads, the major and minor are the most common. The symbols for all the chords are not standardized, so alternative symbols are listed along with the most common. A table of intervals is given on the following page. Notice that the first 4 triads are named for one of the intervals used in them.

Ex (II B)

Major      Minor      Diminished      Augmented      Suspended

# TABLE OF INTERVALS

## Diatonic intervals

(Major and Minor 2nds, Major and Minor 3rds, Perfect and Augmented 4ths, Perfect and Diminished 5ths, Major and Minor 6ths, Major and Minor 7ths). Written from "do" with their diatonic inversions, then (in small notes) the interval formed through inversion is re-written starting back on "do."

Perfect unison *inverts to be* Perfect octave    Major 2nd *inverts to be* Minor 7th

Major 3rd *inverts to be* Minor 6th    Perfect 4th *inverts to be* Perfect 5th

Perfect 5th *inverts to be* Perfect 4th    Major 6th *inverts to be* Minor 3rd

Major 7th *inverts to be* Minor 2nd    Augmented 4th *inverts to be* Diminished fifth

*In the European "classical" tradition perfect unisons, perfect 5ths and perfect octaves were considered perfect consonances, 3rds and 6ths (major and minor) were considered imperfect consonances and all the rest, including perfect 4ths, were considered dissonances. In terms of the prefixes perfect intervals (which usually occur in their perfect form) are called augmented when increased by a half step and diminished when made a half step smaller. The intervals which are called major or minor are commonly found both ways and then become augmented or diminished accordingly.*

## MOST COMMON CHROMATIC INTERVALS

Augmented 2nd    Diminished 4th    Augmented 5th    Augmented 6th    Diminished 7th

The difference between enharmonically equivalent intervals -- intervals that "look" the same on the keyboard, but are spelled differently -- is not just academic, these intervals occur in different contexts and thus sound different

Dim. 4th    Maj 3rd

*It is important to remember that an interval doesn't get its effect just from its size, but also from how it fits into the tonality. As you study music you will find that certain intervals fit into the keys in typical ways. For example, the most common place to find a dim. 7th is going from ti up to le (as in the harmonic minor).*

J.S. Bach Invention No. 4, in d min bars 1-2

## 4-NOTE CHORDS: 7TH CHORDS, 6TH CHORDS AND ADD9

In order to learn the seventh chords, it is convenient to consider them as "made of" some type of triad plus some type of seventh interval. The seventh is figured from the root of the triad. In the system of symbols commonly used in jazz/pop notation, the simplest chord symbol is a root followed by a 7, e.g. C7. This chord symbol is the prototype for the entire system in that all the other symbols relate to the assumptions of this basic symbol, namely;

\*\* C7 means C [Major triad with a minor] 7

Another name for this chord is a dominant seventh chord. The term "dominant" has a number of different meanings in music theory. Classically it means the chord built on the 5th degree of the major scale; this chord is made up of a major triad and a minor seventh.

**IN JAZZ USAGE, "DOMINANT" NOW ALSO MEANS ANY CHORD WITH THIS STRUCTURE.**

**So there are two meanings to the term "Dominant."** Context should always tell you which one is meant. "The dominant seventh" chords refer to the twelve chords with this structure, even though "dominant" does not appear in the individual chord names-- C7 is usually not called C dom. 7.

The \* show to which part of the chord symbol the adjective refers, e.g. in a minor seven chord, such as C-7, the "minor" refers to the triad. It would be redundant for "minor" to refer to the seventh, as the seventh is assumed to be minor in this system, unless otherwise told.

Ex (II B)

Strictly speaking you don't need to write the "7" in a half-diminished chord, it's implied

**All these chord forms must be practiced around the circle of 5ths,**  
 except the dim. 7ths, which should be practiced up and down in half-steps.  
 Use the Metronome on 2 & 4.

# SCALES/MODES

The first group of scales that follow may all be considered as being variations on the major scale; they are all formed from the union of two tetrachords. Some other scales, whose construction is not based on the union of two tetrachords, are shown at the bottom of the page.

Major Scale/Ionian Mode + Mixolydian Mode

THE VARIOUS "SHADES" OF MINOR

=Dorian Mode      =Natural Minor/Aeolian Mode

=Harmonic Minor      =Melodic Minor

=Lydian Mode      =Lydian b7 Mode

= Phrygian Mode

The Lydian b7 scale is important, historically, in Jazz theory because of its importance in the seminal *The Lydian Chromatic Concept of Tonal Organization for Improvisation* by George Russell

\*\*\*\*\*

Relatives: "C" Pentatonic Major has the same notes as "A" Pentatonic Minor

Pentatonic Major      Pentatonic Minor

Blues Scale      Whole Tone Scale      Octatonic a.k.a. Diminished Scale

a.k.a half-step/whole step scale

## TWO PENTATONIC "LICKS"

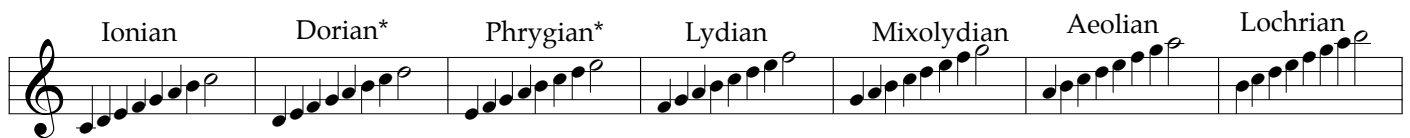
Pentatonic Major      Pentatonic Minor

chromatic variation:  
sharp the 1st 2 "D"s

All the different scale structures (i.e. successions of intervals) shown above have been illustrated beginning on the note "C." Some of these; Dorian, Phrygian, Lydian, Mixolydian, Aeolian, plus Lochrian (not shown before) can be understood as modes. The idea of mode is similar to the idea of an inversion of a chord; they are both different permutations of the same notes (to see this more clearly, consider a chord as also including its octave). Compare the interval pattern of the modes written on "C" with the modes as written below.

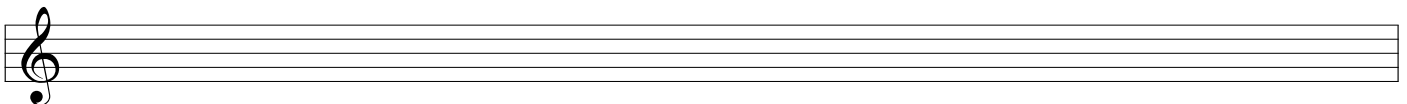
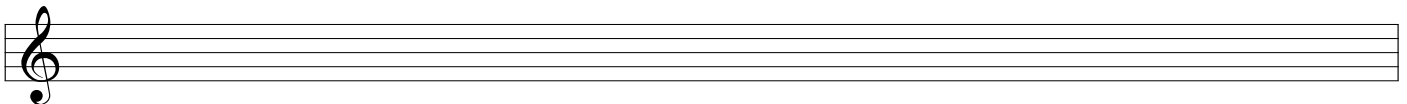
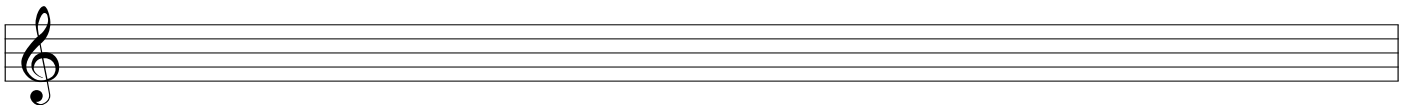
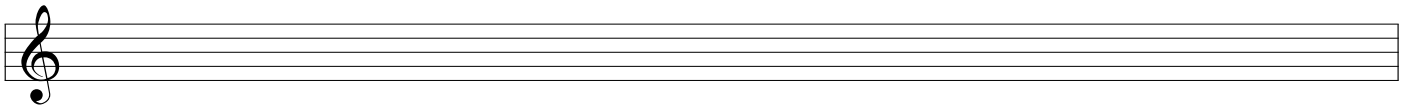
The modes are used in teaching improvisation by coupling a specific mode with a specific chord or chord progression, e.g. Mixolydian with a dom7 chord or Dorian with the progression I-7 IV. Musicians may also use a mode, rather than a chord progression, as the harmonic basis for their improvisation (e. g. "So What," Miles Davis).

Different modes can be derived from any scale, e.g. the modes of the harmonic minor and melodic minor scales. How many modes are there of the octatonic scale? Of the whole tone scale? Of the pentatonic scale?



Modes with two identical tetrachords \_\_\_\_\_

\*Medieval writers mistakenly switched the names for Dorian and Phrygian, so that today the two meanings are reversed from the ancient Greek usage.



# III. PIECES

The material for this part of your practicing must be found outside this book. Basically a piece is something that you are working on learning one way. It might be what is traditionally thought of a piece, namely something that a composer has written out using musical notation. It could also be a written out transcription of a Jazz performance. For beginning students learning a song from a lead sheet constitutes the "piece" part of their practicing as, in the short term, they will only be able to play it one way.

In contrast, the tune part of your practicing (next) has you playing the material in multiple versions keys right from the beginning.

In terms of the Classical tradition, the French impressionists, Ravel and Debussy, offer a rich vein of exploration for the Jazz pianist.

Excerpt from *The Girl With the Flaxen Hair (La fille aux cheveux de lin)*  
by Claude Debussy (VIII From Preludes Book I)

bars 17-19

Excerpt from *Pavane Pour Une Infante Defunte (On the death of a princess)*  
by Maurice Ravel

bars 1-6, beat 2

RH bottom eighth notes staccato

## IV. TUNES

This part of your practice happens in three stages. The first is where you figure out how to play the tune one way. While some tunes are written out for you below, in simple lead sheet format, **it is better if you figure out the tunes by ear.** Try singing along with the piano to figure out the melody. Try different chord possibilities, using mostly chords made up of notes from the key that you are in (diatonic chords).

The second stage involves changing the way the tune is played. "...learn it fast, learn it slow, play it in Waltz time. It was the same song..." Play the tunes in different keys. When you do this, try to rely on your ear, rather than calculations. "You learn a song in one key, then improvise it in another key..."

The third stage is stringing all the other versions together into one long fantasia.

### SIX AMERICAN FOLK TUNES

#### "SKIP TO MY LOU"

Lost my part - ner wha' da I do? Lost my part - ner wha' da I do?  
Lost my part - ner wha' da I do? Skip to the Lou My Dar - lin'

#### "BUFFALO GALS (THE LOVELY FAUN)"

As I was walk - in' down the street down the street down the street A  
pret - ty lit - tle girl I chanced to meet and we danced by the light of the moon  
Will ya Won't ya will ya won't cha come out to - night come out to - night come out to - night  
Will ya Won't ya will ya won't cha come out to - night and dance by the light of the moon

(One way to play the chords)



### "HOME ON THE RANGE"

G C

O give me a home where the buf - fa - lo roam and the

G/B E- A D G

deer and the an - tel - ope play Where sel - dom is heard a dis -

C G/D D G D

cour - ag - ing word and the skies are not cloud - y all day.

G D G C/G G E- A-

Home home on the range where the deer and the an - tel - ope

D G C C-

play Where sel - dom is heard a dis - cour - ag - ing word and the

G/D D G ( ) D

skies are not cloud - y all day.

### "JOSHUA"

Dmin C Dmin

Josh - ua fit the bat - tle of Je - ri - cho Je - ri - cho Je - ri - cho

Dmin Gmin A Dmin

Josh - ua fit the bat - tle of Je - ri - cho and the walls came - a tum - bul - in' down

KEEP A LIST OF TUNES FIGURED OUT BY EAR:

- |    |     |
|----|-----|
| 1. | 2.  |
| 3. | 4.  |
| 5. | 6.  |
| 7. | 8.  |
| 9. | 10. |

**"SWING LOW, SWEET CHARIOT"**

\* F B $\flat$  C F C  
 Swing Low, sweet cha - ri - ot comin' for to car-ry me home Swing

F F/A B $\flat$  C Dmin F/C C F  
 Low, sweet cha - ri - ot com-in' for to car-ry me home I

F F/A B $\flat$  C F C  
 looked ov - er Jor-dan and what did I see com-in' for to car-ry me home A

F Dmin B $\flat$  C Dmin F/C C F  
 band of An - gels com-in' after me com-in' for to car-ry me home

\* Sometime the first three notes are performed as C, A, C, then F as written

**"THE RIDDLE"**

G A- C G D G C D  
 I gave my love a cher-ry that had no stone I gave my love a chick-en that had no bone I

A- G/B C D A- G C D C G  
 gave my love a ring that had no end I gave my love a ba-by with no cry-in to end

# V(A): BASIC POP IMPROVISATION

## The 4 Bar Vamp (repeating phrase)

### START HERE

### QT Movie number 4

Then in the right hand, substitute the two different parts above. Vary and arpeggiate the note groups. For the top line, add chord tones below the melody notes, vary and arpeggiate

The 8 on the bottom of the clef means play an octave lower than written.

Fingering is important in this exercise...

## MORE 4-BAR VAMPS

The written whole note "melodies" are meant as a guide for right hand voicings and melodic elaborations.

**DON'T FORGET THE CLASSIC JAZZ APPROACH TO IMPROVISATION: JUST PLAY THE BLACK KEYS**

# V (B) INTRODUCING... THE BLUES

The term "Blues" has a variety of meanings. One refers to a chord progression, most commonly 12 bars long, which has endless variations. One of the most basic forms of the blues progression is given below. The Blues progression is made up of three phrases, each of which are four measures long. Listen to blues singers to get the feel of the blues. A common form for Blues lyrics (corresponding to the 4 + 4 + 4 phrasing) is AAB. This is a form conducive improvisation because while the singer repeats the second "A" phrase, she can think of the "B" phrase. There are a lot of common rhymes used in the Blues; "blues, dues, lose, shoes."

*"Don't the moon look lonesome, shining down through the trees.  
Yeah, don't the moon look lonesome, shining down through the trees.  
Don't your house look lonesome when your baby packs up to leave."*

First, learn the left hand pattern and chord progression. The time signature, 12/8, subdivides into four groups of three, practice counting out loud in all these variations, 1 i a, 2 i a, 3 i a, 4 i a; 1 a, 2 a, 3 a, 4 a; 1 2 3 4. Learn more blues lyrics on your own. Make some up! Only after the left hand part is thoroughly learned, should you add the right hand exercises. Many Blues melodies, whose progressions don't exactly match the written one, can nevertheless be superimposed on top.

For an explanation of the roman numeral notation, see the next section.

*QT Movies 5 & 6 show material on these pages*

## Left Hand "Boogie Woogie" Groove

*Bar 12 is an example of a "turnaround." There are many variations. Also try keeping the groove, with V/// or I///*

## Right Hand Exercises

Different voicings in C for I, IV, V and ii

Blues Scale exercises in rhythmic variants -- play each example over the entire blues form

Repeat all the exercises using the "A" (relative minor) Blues Scale

Conceptual note: The Blues Scale in practice: "C" as the center, rather than the upper and lower boundary.

# MORE RH EXERCISES

"C Jam Blues"

Two Ellington Blues Riffs

3X



"Night Train"

3X



Train whistles:



Step-by-step transformation of a C7 chord into the lick below...



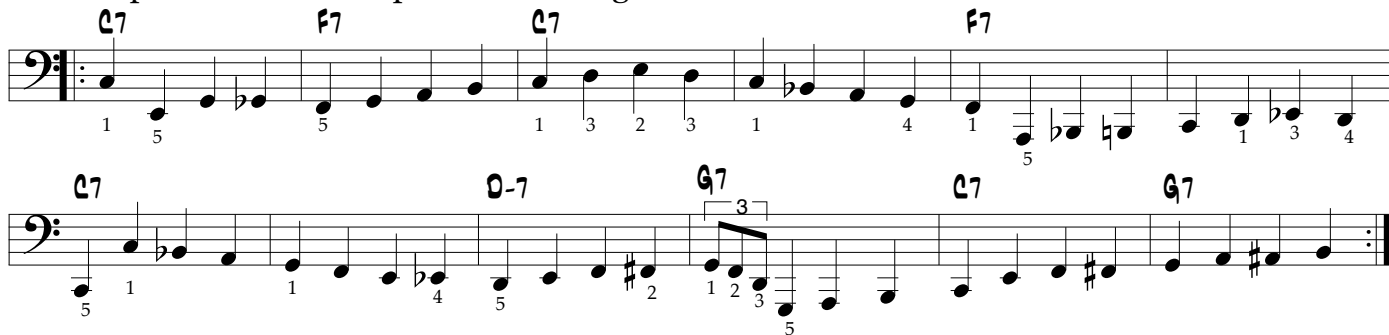
Make this lick fit the entire blues form. For m1-2 play as is, but flat the "E" in m2 to make it fit the F7 chord; m3-4 play as is; m5-6 transpose the lick up a 4th (starts now on Eb, the 7th of the F7 chord); m7-8 play as is; m9 transpose up a 5th, but shorten it to fit one bar (make the lick 8 notes long instead of 14), bar 10, up a 4th and shortened; m11-12 as is.



Below are a sample of the type of chord exercises you can make up to practice on the blues. These are written out in 4/4 swing eighth notes, which, by convention should match up with the 12/8 quarter eighth pattern of the left hand. The examples are for m1, adjust them to fit each chord.



Another possible left hand part--a "walking" bass line.



First Blues scale exercise, superimposed over the groove



# HARMONY 001

## UNDERSTANDING THE FOLK SONGS

It is important to be able to play these folk songs in a variety of keys. In giving an extended performance of a folk song, modulation is a key : ) device in maintaining the listener's interest. More importantly, learning to play songs in a variety of keys sharpens our ability to play by ear.

Playing by ear breaks down into **key feeling, relative pitch, and vocabulary.**

**Key feeling** is the ability to hear the central note or chord around which the other music is oriented.

**Relative pitch** is the ability to hear intervals--for our purposes, to hear and play intervals, and to hear how the melody relates to the key.

**Vocabulary** describes and calls up in your imagination patterns, common sounds and conventions in the music, such as "Mi, Re, Do," "AABA," "the Blues," and "swing eighth notes."

**Solfege** is an invaluable device for developing these abilities. From a practical point of view, when you know a melody in solfege, it is easier to play it in different keys.

Solfege also provides a context in which to distinguish otherwise equivalent intervals. For instance students are often told to remember the interval of an ascending major 6th by thinking of the first two notes of "My Bonnie Lies Over The Ocean." That particular 6th is sol to mi. In a tonal context, "mi" is a stable tone. In the major 6th of do to la, however, la is relatively unstable, thus leading to a potential identification problem for the student trained on the "My Bonnie" school of thought.

Unless you possess absolute pitch (the ability to hear any note and, without any other reference, be able to name it, e.g. "that's a Db, a G# etc."), building the association between the sound of a note in its tonal context and its solfege syllable is how you will learn to play by ear.

In order to play harmonies by ear, to think of chords across all keys, we use a system of roman numerals analogous to solfege:

I ii iii IV V vi vii I

**It is extremely important not only to be able to designate a chord by its appropriate roman numeral, but to build the association between the numeral designation and how the particular chord or chord progression sounds in a tonal context.**

The simplest tonal context is the **diatonic**, when we use only the notes of the major scale i.e. the chords diatonic to C major use only white keys. The diatonic seventh chords are:

I $\Delta$ 7, ii-7, iii-7, IV $\Delta$ 7, V7, vi-7, vii $\emptyset$ 7

Ti	Do	Re	Mi	Fa	Sol	La
Sol	La	Ti	Do	Re	Mi	Fa
Mi	Fa	Sol	La	Ti	Do	Re
Do	Re	Mi	Fa	Sol	La	Ti
I $\Delta$ 7	ii-7	iii-7	IV $\Delta$ 7	V7	vi-7	vii $\emptyset$ 7

Capital letters are used for chords with a major third (or sus4) and lower case letters for chords with a minor third. Somewhat redundantly I include the symbols used in lead sheets;

Major	Minor	Diminished	Half-diminished, (-7b5)	Augmented
$\Delta$	-	$\circ$	$\emptyset$	+

The seven diatonic chords can be divided into three groups, each based on one of the diatonic major triads.

**(Most Stable)**

**Tonic: I iii vi**

**Subdominant: IV ii**

**Dominant: V vii**  
**(Most Dissonant)**

Many chord progressions follow a pattern of Tonic, Subdominant, Dominant, back to Tonic. This pattern may be combined with root motion of a descending fifth, e.g. iii vi ii V I.

Since it is common in jazz to include chords from the parallel minor in major key tunes, if necessary, use the flat or sharp symbol before the roman numeral to change the root from being a note of the major scale. Capital or lower case letters should still be used as appropriate. ("C:" means "in the key of C major")

C: F $\sharp$ -7 $\flat$ 5 =  $\sharp$  iv-7( $\flat$ 5)      C-7 = i-7      B $\flat$  7 =  $\flat$ VII7

**EXERCISE: TRY DOING THIS EXERCISE BY JUST GLANCING OVER THE PAGE AND FILING IN THE CORRECT CHORD IN YOUR HEAD.**

F D Bb G E B Db A Gb Ab Eb C

I \_\_\_\_\_

#ivø \_\_\_\_\_

vi \_\_\_\_\_

iii \_\_\_\_\_

V7 \_\_\_\_\_

iv-7 \_\_\_\_\_

bVII7 \_\_\_\_\_

ii-7 \_\_\_\_\_

bII7 \_\_\_\_\_

bVIMaj7 \_\_\_\_\_

vii°7 \_\_\_\_\_

**AS A PREREQUISITE TO PLAYING THE TUNES IN OTHER KEYS, BE ABLE TO DO A MELODIC AND HARMONIC ANALYSIS AS EXEMPLIFIED BELOW.**

sol sol sol sol sol la do re do la sol do

re re re do mi sol la sol mi re

**--END OF PART I--**



## TWO ANALOGIES AND TWO PET PEEVES

The world is recreated and modeled in our mind (picture yourself walking from your bed to the bathroom stop, close your eyes and really picture it), but here I am using two real world events; walking around a block and walking through a forest, to make an analogy with a process that occurs in the mind, improvising a Jazz solo.

Playing a jazz solo reminds me of walking around and around a block and telling stories based on what's around you. First you must know where you are, what is around you. A blind person would have to intellectually keep track of what street they were on, they might even count steps (bars) for each side of the block; they could lose track of where they were. For sighted person, familiar with the neighborhood, the idea of not knowing where you are doesn't even apply. You have the confidence that seeing the familiar landmarks (chords, rhythms, riffs, melodies) will remind you of stories, jokes and commentary that you have heard or told before. If something new or unexpected happens, you are able to comment freely on it and work it in to your standard repertoire. Group improvisation means that there are a bunch of you out taking a walk. If you are with a bunch of people, you do not need to communicate overtly to stay together, if one person starts to run, you can run to keep up, if someone stops to buy a hot dog, you'll stop too, you won't keep walkin' and talkin', thinking that they are with you.

Improvising over a set of chord changes is like finding your way through a forest. The melody is the main path through. The recorded solos of Jazz musicians are elegant paths through that you can follow if you have the ear. Every time you play a solo you find a path through the forest. Eventually paths begin to cross, some may run close enough together so that any space between them is accessible. From these paths a vast number of new ones are possible, using combinations of old paths, adjacent space, and blazing new paths.

### TWO PET PEEVES

#### (WORDS I DON'T LIKE BECAUSE OF THE MENTAL PROCESSES THEY IMPLY)

**Memorize** First of all, something that you memorize you can forget. I prefer the word "know." Memorize kind of implies that the thing is in pieces, and that you might forget part of it. Songs/tunes are a unity. You don't say "I memorized the way home," you say "I know the way home." Implicit in that statement is the idea that you can be flexible with that knowledge. If there's traffic, if there's a road closed, if you need to make a detour, you will still find your way.

**Transpose** implies that you still somehow retain the memory of the original key and are moving it by some interval. I prefer saying (after Prof. Ron Elliston) "play in another key." That emphasizes the playing by ear aspect, whether you are playing a familiar tune for the first time, or a tune in a new key, you should be just hearing it in your head and having it come out the keyboard.

# PAST THE BASICS

## SOME HINTS ON JAZZ IMPROVISATION

There is a fine line between improvising a solo and interpreting a melody, between improvising a solo and comping, even between clever and stupid.

The foundation for jazz improvisation is the ability to feel the form of the song and the (usually 4 or 8-bar) phrase structures. You can test this ability by simply listening to a "mainstream" jazz recording to see if you can hear the song/phrase structure being repeated. If you are hearing the structure, you should be able to anticipate the ends and beginnings of solos, and the return of the melody. Going to live "jam sessions" and hanging out with an experienced musician is an ideal way of testing this ability.

The next level of musical thinking in improvisation includes the ability to swing, to manipulate chords (more below), and to paraphrase melodies. These are the aspects that are developed intensively "in the woodshed." For rhythm section players, it is relevant that these abilities are also fostered when you practice comping (playing accompanimental chords). All musicians, not just keyboard players, should acquire the basic ability to "comp" on the keyboard.

Contemporary emphasis tends to be on the type of improvisation that is abstract, based on some aspect of the song's structure rather than the melody--though varying the melody is a good place for beginners to start. Louis Armstrong is a prime source of this type of approach. Lester Young's oft quoted dictum to know the lyrics of the song you are playing may be considered an oblique approach to a melodic based concept. Remember, "telling a story," is a common metaphor for a jazz solo.

One approach to learning to improvise would be to take an armload of recordings, learn all the solos, then extrapolate from those examples. This approach would be ideal but for the fact that one must have a finely developed ear to hear all the notes of a jazz solo and then be able to play them. Even a beginner, however, should be able to pick out rhythmic patterns which can then be applied to your own notes. The more Jazz tunes you learn, the more you'll have a repertoire of melodic patterns, and that will help you to hear what's going on in an improvised solo.

While a familiar improvisational ideal is that of instant composition, even the masters had riffs, phrases and even whole solos that they could repeat note for note. As preparation for your own spontaneous improvisation, you might try to figure out, compose, solos of your own.

When you are working on a song in order to be able to solo over it, your practice materials fall into three categories. 1) The melody -- which is unique to the tune you are working on 2) The chords -- which may be unique, but often bear an at least family resemblance to some other progression and 3) A scale, typically one or both of two blues scales. Most of the exercises that you develop will probably be based on melodic transformations of the chord progression, certainly the chords are what can create the most practice routines. Sample phrases are below:

## SAMPLE MELODIC PHRASE

1. Melodic variation

2. "Running the Changes-as you look at this example, be able to identify the harmonic role of every note-- chord tone (root, 3rd, 5th, 7th, 9th, etc.), diatonic/chromatic passing tone or diatonic/chromatic neighbor tone.

3. Running changes, with an emphasis on extending the chords up past the 7th.

4. Running changes, with an emphasis on added chords, added harmonic movement.

(If you're lucky, the drummer might echo, like this:)

5. Running the Changes, with an emphasis on chromatic neighbor tones and passing tones.

6. Playing off the blues scale

7. Playing off of the blues scale of the relative minor

These different approaches are evident not only in jazz solos, but also in the tunes composed by jazz musicians. To my ear, the tunes of the Bebop era closely resemble the improvised solos. Analysis of these compositions, e.g. "A Night in Tunisia," "Donna Lee," "Anthropology," will give good examples of most of the approaches listed above.

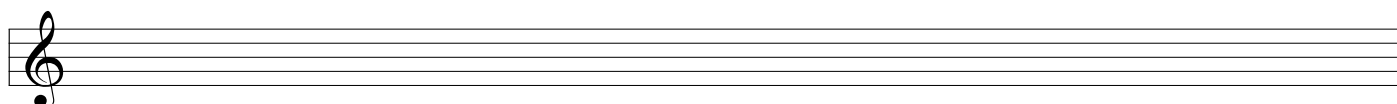
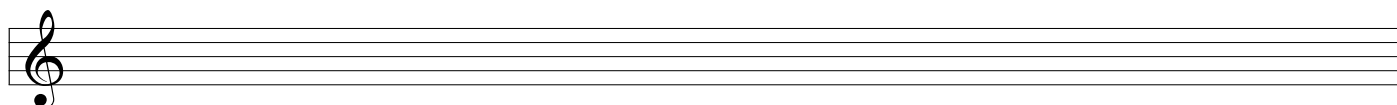
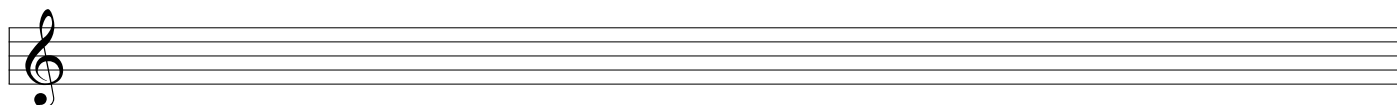
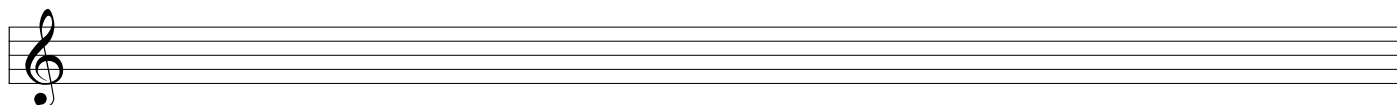
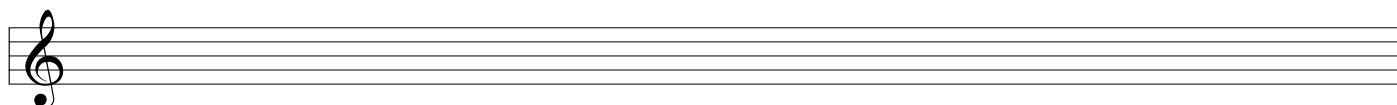
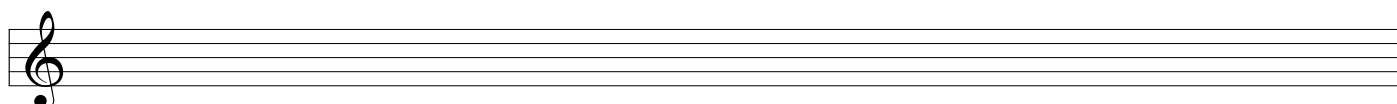
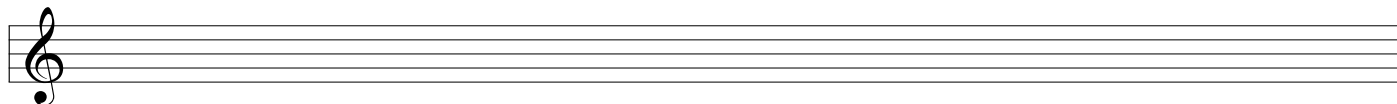
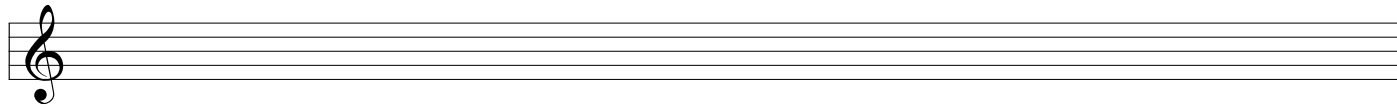
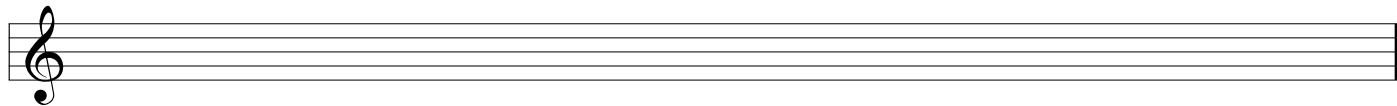
The student of improvisation typically begins with the blues form; utilizing the blues scales, which work for the entire chord sequence of the blues. These scales are easily mastered, leaving the student free to think about musical aspects, the **how**, such as phrasing and dynamics, rather than **what** notes to play or avoid.

It is of prime importance to learn and analyze the solos of jazz musicians whom you admire. A student should have a notebook full of licks, solos and ideas to be practiced in a variety of keys. To the student who worries that such practice will make them sound too much like their mentor (you should be so lucky), some advice from Dizzy:

For a guy' s musical development, the same rule applies in jazz as in any other field; you collect facts, and study. You listen to Coleman Hawkins and Lester Young, two guys who played the same instrument but played it very differently. Both of them have something in common. Because both of them played the truth, your job is to find out what is the common denominator between Coleman Hawkins and Lester Young, or Lester Young and Louis Armstrong. When you find that, that' s the foundation. When you play things, you assemble all this information in your mind like a computer, and you use it when it' s necessary. Yeah, it is like building bricks on top of each other. **You take a riff that Roy Eldridge played, and you play that riff. A lotta things happen with a specific riff, the chording behind it, and how you get from this progression to that one. And you figure the alternatives. You say, Ah, then, you could also go here instead of going there.'** And when you get that far, finally **you' ll come up with something different.** [Emphasis mine] But it' s the same music. It's just progressing all the time.

("To Be Or Not To Be Bop," p. 489)

## LICKS FROM RECORDINGS



## MORE THEORY MATERIAL--VOICING CHORDS

An important part of the "jazz piano sound" is due to how the chords are played. Chord voicing includes the concepts of inversion, extension, density and voice leading.

Chords are traditionally built in thirds (R,3,5,7) and extended by thirds (9, 11, 13). The 15th is the double octave, a chord which includes R, 3, 5, 7, 9, 11, and 13 has used all the notes of a scale. The 9, 11, and 13 are figured based on the major scale of the root, regardless of the key of the composition. Termed "tensions," "extensions" or "color tones," these notes may be chromatically altered; #9, b9, #11, b13.

Generally speaking, the dominant 7 chord has the most color tones added. Play and sing the chords below with all the indicated extensions. Note that in many cases the extensions can be combined, along with a chord tone or two, to form another chord so that a polychord concept can be used in voicing and improvisation,

e.g.  $C7(b9, 13) = A$   
 $C7$

*Generalization: Any chord with a major third usually takes the #11 rather than the 11th. In a tonal context, "fa" resolves to "mi" in both the V7 I and IV I cadences. Thus, their juxtaposition creates a temporal anomaly which could threaten the very fabric of the time-space continuum. Of course "ti" resolves to "do" (V7 I), yet we tolerate them both together  $\Delta 7$  chord. On the other hand, the 10th (3rd) is a very usable tension to the Sus 4 chord.*

The image displays four musical staves, each representing a different chord type with its constituent notes and tensions. The notes are placed on a treble clef staff.

- Dominant 7:** Shows chord tones (Root, 3rd, 5th, 7th), natural tensions (9th, #11, 13th), and altered tensions (b9, #9(b10), b13).
- Major 7/6:** Shows chord tones (Root, 3rd, 5th, 7th/6th), natural tensions (9th, #11, 13th), and an altered tension (b9) in the context of b9.
- Minor 7/6:** Shows chord tones (Root, 3rd, 5th, 7th/6th) and natural tensions (9th, 11th, 13th).
- Dom. 7 Sus 4:** Shows chord tones (Root, 4th, 5th, 7th) and various tensions (b9, 9, #9(b10), 10, #11, b13, 13).

**LEFT-HAND DOMINANT 7 VOICINGS ARE FREQUENTLY BASED ON THE 3RD AND 7TH.**

**IMPORTANT: THE 3 AND 7 OF A DOMINANT 7TH CHORD**

**ARE THE 7 AND 3 OF THE DOMINANT 7TH CHORD A TRITONE AWAY.**

Because of these shared 3rds & 7ths, dom 7 voicings based on the 3 & 7 can be interpreted (at least) two ways.

Voicings are also built up in thirds, starting on the 3, 5, or 7.

**"STANDARD" 11-7 V7 VOICINGS**

**VOICINGS IN 4THS.**

Also check out the lead sheet for "So What" (The Real Book)

Exercise: For each of the following tritones, name the two dominant 7th chords that contain them.

Now your circle of fifths exercises, which will be based on these pages, may have you playing different notes in each hand. Previously the hands played the same notes, but with different textures -- blocked in the left hand and arpeggiated in the right. (This texture illustrates the cool thing about chords: they are groups of notes that "work" played all at once and also in succession.)

For these exercises, as you are playing a "voicing," (what you might think of as a slang version of the chord) in one hand, it is useful to play something in the other hand that is much more basic, and sends back the message very clearly, "This is the chord!"

## CHORD SUBSTITUTIONS AND PROGRESSIONS

The chart (p29) showing the organization of the diatonic chords can be expanded to account for many of the chromatic chords common in jazz. The organization in this chart reflects the theoretical approach of the Berklee College of Music and of Prof. Steven Strunk (Catholic University). My subtitle for the chart, *Chords of Primary Function*, refers to the idea that each of these chords is more or less dissonant in relationship to the I chord. Secondary chords are dissonant to (resolve to, have a harmonic pull toward) to a chord other than I. Examples of Secondary Dominants and Secondary Sub-Dominants are given on page 41.

### SUBSTITUTION SETS

Chords of Primary Function;

#### Tonic (mi):

I iii vi #iv $\emptyset$   $\flat$ VII7 III7

#### Sub-Dominant (fa):

IV ii Vsus

#### #ii $\flat$ 7 (fi)

#ii $\flat$ 7 #iv $\flat$ 7 II7 VII7

#### Sub-Dom Minor (le):

iv-  $\flat$ VII7  $\flat$ VI $\Delta$ 7  $\flat$ II $\Delta$ 7

#### Dominant (ti & fa):

V7 vii $\emptyset$  vii $\flat$ 7  $\flat$ II7

NOTE: The more dissonant dominant chords, e.g.  $\flat$ II7, V7( $\flat$ 13), V7(#9), contain other notes: le, ra ( $\flat$ 9), ri (#9), that, like ti and fa, lie a half step away from the notes of the tonic major triad.


**AT FIRST JUST MEMORIZE (YES, MEMORIZE) THIS CHART. AS YOU LEARN YOUR REPERTOIRE OF JAZZ STANDARDS YOU WILL FIND THAT THIS CHART HELPS YOU MAKE SENSE OF THE CHORD PROGRESSIONS. AS THE EXAMPLE ON PAGE 43 SHOWS THESE IDEAS CAN ALSO BE USED AS A TOOL IN REWORKING AND "JAZZING UP" THE CHORD PROGRESSION TO A SIMPLE SONG.**

The general tendency for most jazz chord progressions is to follow a route from tonic to dominant. The most common example in jazz is I vi ii V (See above chart). At some point the student should be able to deal with a progression such as this as a single harmonic route through the chart. That is, a progression like I vi ii V or I ii iv- I will be just one thing to remember rather than four, just as before you learned chord symbols the notes C G $\flat$  E $\flat$  B $\flat$  would have been 4 things to remember, but once you know C $\flat$ 7 it's one group.

The chart can, of course, be modified to fit particular idioms, certain chords can be mentally highlighted.



## COMMON VARIATIONS ON I vi ii V.

C $\Delta$ 7 C7 C6	A-7 A7(b9) E $\flat$ 7	A $\flat$ 7 D7 D-7 D $\emptyset$ 7	D $\flat$ 7 G7	Various types of iii chords are routinely substituted for I, various types of bIII for vi.
				

The variation below can be found in "Ain't Misbehavin," "Mean to Me," "Bewitched" etc.)

C6	C $\sharp$ 7	D-7	D $\sharp$ 7
			


50's "Cool Jazz" variation.

Minor key variation.

C $\Delta$ 7	E $\flat$ $\Delta$ 7	A $\flat$ $\Delta$ 7	D $\flat$ $\Delta$ 7	C-	B $\flat$ 7 A $\emptyset$ 7	A $\flat$ 7 D $\emptyset$ 7	G7
							

A simplified version.

The simplified version--augmented to four measures.

C	D-7	G7	C	F $\Delta$ 7	E-7	A7	D-7	G7
								

The entire 32 bar structure of "I Got Rhythm" serves as a reference model for remembering all the "Rhythm changes" tunes (e.g. "Anthropology," "Oleo," "Lester Leaps In" etc.) and, through the cognitive ability to generalize, any tune in the 32 bar AABA form.

Some of the chords listed above are not found on the chart and must be understood as chords of secondary function. Secondary chords relate to some chord (usually a diatonic chord) in a manner analogous to the way a chord of primary function relates to I. The most common secondary chords are secondary V7 and bII7 chords. A chord may function in more than one way. For example, II7 and VII7 most frequently function as secondary dominants rather than as a #ii $\emptyset$ 7 substitute as indicated in the chart. Further examples of secondary chords are on p.41.

The concepts of substitution and chord voicings are related; both are theoretical paths to leading to different combinations of notes. If the left hand plays D F A $\flat$  C at the top of a rhythm changes tune, is the pianist playing 3 5 b7 9 of a I7 chord or substituting a ii-7(b5)?

- The two mental processes of voicing and substitution are related and can even be used simultaneously, make a voicing of a substitution and listen to where that has led you.
- Both voicings and substitution have a direct effect on melodic improvisation.
- All the chord progressions above and following should be played in all keys.

**IT IS IMPORTANT TO ASSOCIATE A SOUND AND FEELING WITH EACH OF THE "ROMAN NUMERAL" PROGRESSIONS.**

# SHORT COMMON PROGRESSIONS -- MORE CIRCLE OF 5THS EXERCISES

The Dominant..... and the "Substitute Dominant"

Note that the upper notes to the first chord, "F" and "B" form a tritone interval, and that the interval between the roots of the "G" and "Db" chord is also a tritone. If the structure is altered to be a dominant seven with a flat fifth, the dominant and the substitute dominant become note-for-note inversions, e.g. C7b5 and Gb7b5 -- C, E, Gb, Bb = Gb, Bb, Dbb, Fb

The substitute dominant in a typical example, "When Sunny Gets Blue," Fisher/Segal

Other places (other than I) that V7 can go (Deceptive Cadences)

## SUBSTITUTION WITHIN THE TONIC SET.

"Over The Rainbow"

## EXCERPTS SHOWING CHORDS OTHER THAN V7 LEADING BACK TO I

"Misty" (Garner)

"I Remember You" (Schertzing/Mercer)

Generic "Gospel"

"Embracable You" (Gershwin)

"Groove Merchant" (Richardson)

"Jersey Bounce" (Plater)



**REHARMONIZING THE CHORD PROGRESSION TO A TUNE** is one approach to melodic improvisation. In reharmonizing tunes, we can distinguish between several different types of chord substitution. The simplest is when one chord is substituted for another from within the same substitution set, for instance if the given chord is a I chord to use a iii chord instead (intra-set substitution).

It is also common to use, for instance, a chord from the subdominant minor set as a substitute for a dominant chord--to substitute a iv- chord for a V chord (inter-set substitution). Depending on the overall structure various kinds of inter-set substitutions may be made. A common "new age" and pop effect comes from the substitution of IV for I. A simple melody originally derived from the I chord becomes a harmonically more complex upper structure over the IV chord.

Another distinction is whether one chord simply replaced for another or if an extra chord is added. The most common examples of this are the substitution of ii-7 for just V7, or the insertion of extra dominants or substitute dominants.

A helpful term here is "**HARMONIC RHYTHM**," the feeling engendered by how fast the chords are changing. Substitution can create an even (typically half note) harmonic rhythm, which may make it easier for some musicians to improvise. The harmonic rhythm may be sped up or slowed down to create an effect: a pedal point gives an effect similar to a slow harmonic rhythm.

Another approach is to create a bass line from a single chord, and then harmonize the passing tones of the bass line.

See also the Real Book version of "Like Someone in Love."

As the following quote demonstrates, substitutions were a big part of the Bebop revolution. Later, Coltrane would define his own style in part with his own original patterns of chord substitutions.

#### **BASSIST MILT HINTON ON DIZZY GILLESPIE:**

...and he was very deep into his chord changes and his substitutions which hadn't even hit this band [Cab Calloway], not at all. Nothing like a C chord to compare to it. Anybody making a substitution for a C chord? Nobody ever dreamed of that. If it was a C, you just played it, baby? And that was that.

One song was "Girl of My Dreams, I Love You." And Dizzy showed me these new changes. Aw, man, you know! Well, instead of going straight to the C, I'd make the Db chord: de, da, da, da, de Db da, da then go down to the C, and, man, it knocked me out.

(To Be Or Not To Bop) 114-5.

# "YOU ARE MY SUNSHINE"

**ORIGINAL TUNE** B $\flat$ 6 F7

**SUBSTITUTE CHORDS & DERIVED MELODY**

Added substitute dominant. As in "Girl of My Dreams..."

V7 elaborated into ii-7 V7

**added substitute dominant of F-**

V7/IV elaborated into ii-7 V7 with the substitute dominant

A7 comes from an intra-set substitution within the #ii $\circ$ 7 set, also works as V/iii [could also resolve directly to B $\flat$ ] A7 elaborated into ii V.

Intra-set substitution, Tonic Set.

added substitute dominant of IV.

Added secondary dominant.

Added substitute dominant of ii.

Inter-set substitution SDM chords for dominant.

Use of "stock" turnaround

The score is written in 4/4 time with a key signature of two flats (B $\flat$  major). It consists of two systems of staves. The top staff of each system shows the original melody and chords, while the bottom staff shows the substitute chords and a derived melody. Annotations explain various harmonic techniques used in the substitute version, such as intra-set substitutions, secondary dominants, and stock turnarounds.