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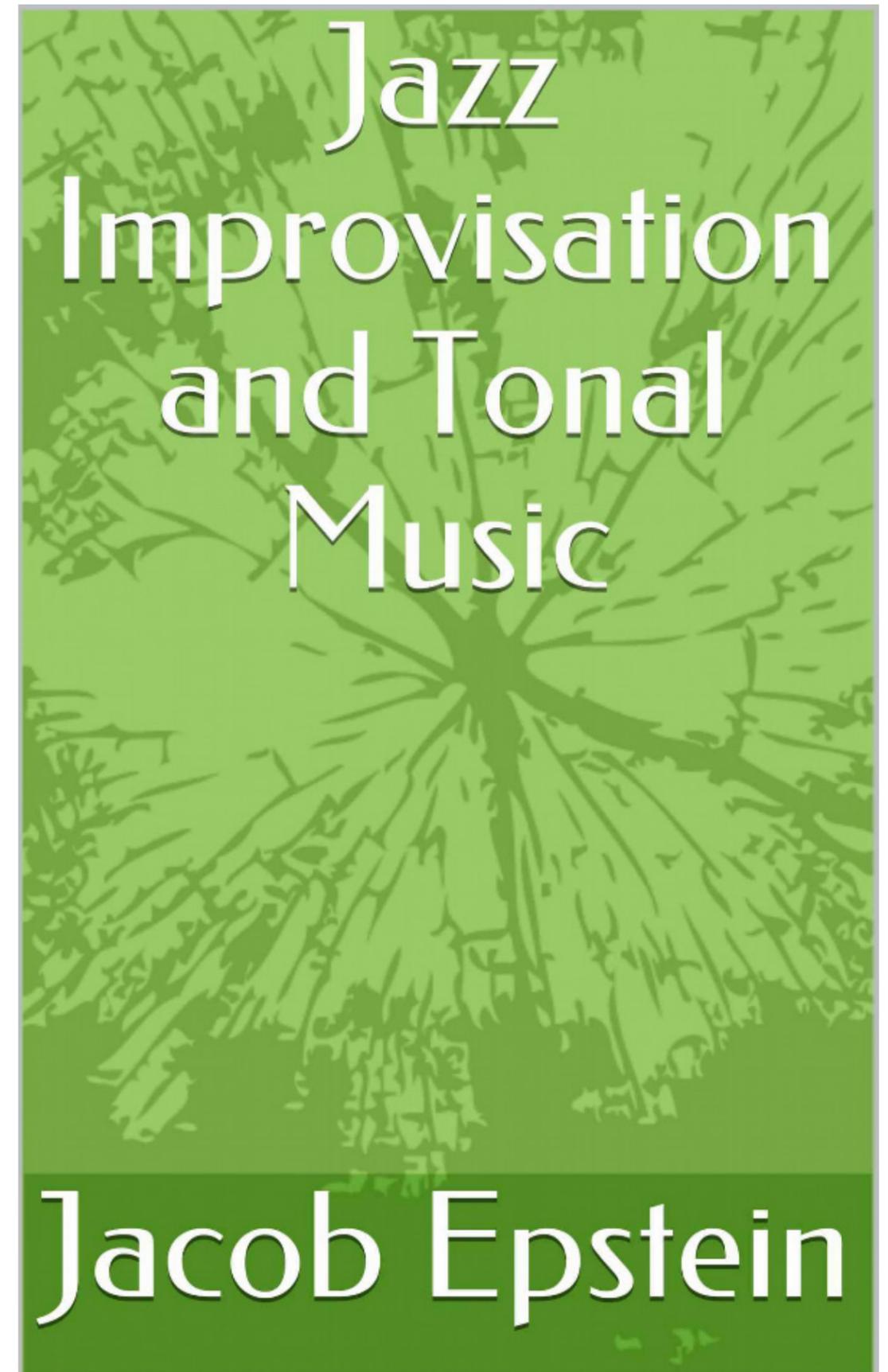
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Jazz Improvisation and Tonal Music.
Fourth Edition (August 2018)
Jake Epstein

Chapter12: The Introduction at the end.

Back in the spring semester of 1972 at the University of Massachusetts in Amherst, I designed and taught my very first course on Jazz Theory and Improvisation. At that point I was the first graduate assistant in the Music Department's African American Music and Jazz Studies Program directed by Dr Frederick C Tillis. For the next 8 years I worked with Dr Tillis, colleagues and students to develop Music department programs serving first as a Graduate Student and then as an Assistant professor. Today, I am grateful to Professor Jeffrey Holmes, program chair and his colleagues and students for carrying on and extending the traditions that we fostered so many years ago.

I originally put these notes together for a Master Class presented at the UMass Jazz in July Summer Program held at Amherst in 2007. The class leader, Bruce Diehl of Amherst College, and I discussed that there was not much time available to cover improvisation and theory topics during ensemble and master classes. I also learned that over the 31 years of the program, Professors Jeff Holmes, Fred Tillis and others have provided instruction in this area. We hoped to build on their groundwork.

Jazz is an aural art steeped in traditions of Africa with influences from American, European and other Musical traditions. So it is important to see theory as a tool to help understand and develop skills. But it should never be a replacement for practice, listening and performance.

It seems that this book has become a work in progress. I am indebted to everyone that has read this information and provided suggestions for improvements.

Special thanks to my friend and Trombone/Vocal musician Jim Wells for his assistance in not only encouraging me to produce this edition but also help proofing it.

My friend Tom Briggs was a student at UMass when I taught there in the 1970's. He is a composer, arranger, percussionist and music educator. Tom assisted in proofing and clarifying the text.

Finally it is impossible to thank everyone who has supported me and helped in my development. It is best to just highlight the musical lives of many that have influenced me to remember and honor traditions while fostering innovation.

This is it for now.
 And Thanks

Jake Epstein

TURNAROUND BLUES

JAKE EPSTEIN

The musical score for 'Turnaround Blues' is written in 4/4 time with a key signature of one flat. It consists of three staves. The first staff contains the melody, starting with a key signature change from one flat to two flats. The second and third staves contain the bass line, with chords indicated above the notes. The chords are: C7, F7, C7, F7, C7, E-7, A7-9, D-7, G7, C7, A7-9, D-7, G7-9, and C7. The piece ends with a double bar line and a final chord of C7.

The A form and B forms are interspersed based on ranges and use. I will leave it to you to study and analyze these forms and apply them to all keys. You also may want to take the second note from the top of each, drop it one octave down and play it with the root in the left hand. You maybe surprised to find these will work out as shells in the left and 3rd or 7th in the right. If you maintain the root, 3rd and 7th tones, try altering the extensions up and down by half step.

The following blues is based on a common riff. I name it here for Jazz in July Director Mark Baszak who passed away just after Jazz in July 2008. The treatment highlights 3 note voicings in the left and simple lines in the right.

Mark B's Blues

J. Epstein

Piano

10

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August 2, 2014

New Haven, Connecticut

This work is not copyrighted and is placed in the public domain for educational use. You may use and redistribute this work in part or in its entirety but please give credit to the Author.

Although this work draws on a broad range of topics in the music field, every attempt has been made by the author to not directly use copyrighted materials. In a few cases, material in the public domain but included here have been cited as being found in other works with the goal being to point students to other works of value to their studies.

Introduction:

I was thinking just before starting this effort, about my dislike for books on music, computing and other topics that provide much information before they get to the topics that I really want. After changing my mind a couple of times, I am going honor my initial thought and get right into it.

For background information, please skip to the end of the document.

In these examples I start out with a simple treatment. Note that the voicings use voice leading. As you play these examples make note of the relationships of your fingers. You may need to get some assistance from a teacher or a proficient pianist. For the most part use the following fingering:

Shells (Bass Clef)

7ths and 6ths: Pinky and Thumb

3rds: 3 and Thumb

3 Note Chords

Thumb (1) 3, 5

4 Note Chords

Thumb (1), 2, 3, 5.

This is not set in stone, but rather a starting point.

Shells

Shells outline the root and 7th or root and 3rd of chords. Consider that on major chords, the 6th is a common substitute for the 7th, Swing and Bop players often would simplify there left hand accompaniment especially on up tempo tunes. When supplemented with chord tones in the right hand, Shells can support very rich sounds.

Although used by all modern pianists, shells are often attributed to Bop masters Bud Powell and Theloneous Monk.

For beginners, shells allow you to get a sense of chordal progressions and tonal centers. Try playing shells and applying tune melodies and then improvisations on top.

3 Note Chord Voicings

These are played in the left hand and are based on the bottom tone being the 3rd or 7th of the chord. The top will be a 9th or 13th. These are very effective in Blues especially when extended in the right hand. The simple riff style blues below highlights the tight movement between voicing's where voice leading happens automatically. 3rd goes to 7th and 7th goes to 3rd.

These voicing's also highlight a point that may have been missed which is if you start with the tonic (I) chord and move the notes up a half step, you will hit the dominant (V) chord. If you move down, you will hit the Sub dominate (IV) chord.

4 Note Chord Voicings

I have included common 4 note voicings. These are used by many artists and were formalized in many books and pamphlets by John Mehegan.

Chapter 1: Foundations

The music we are going to discuss has important roots in African culture and music and Western European and early American music as well as Caribbean and Latin American music and culture. It also has ties to other World Music and cultures along with dance. Although we will touch on other important areas such as Modal Music, this text will focus on Tonal Music and its influence on Jazz. I direct you to the many great books on Jazz and World Music in print.

This discussion assumes that you are familiar with music intervals, scales and basic chords. There is much information on fundamental music concepts on the WEB available via Google, Youtube and other resources. And most importantly, seek information and advice from your teachers and other music educators even if they are not focused on Jazz education. They will have a wealth of valuable information in music theory for you.

Also, to some, some information may seem basic and redundant at times due the author's attempt to cover fundamentals for readers with varying levels of knowledge and experience.

To obtain the maximum benefit of this material, it is recommended that the reader have a keyboard instrument available to play chords and melodies.

Everyone has heard, so many times, of the importance of practicing scales, intervals and chords for developing sound and technique. As you will see in later sections, mastering all 12 Major scales is critical for performing Jazz. Minor scales and altered scales such as the Blues and Diminished scales are also important. Having the Major scales in your fingers and voice are an important first step. You will also see how scale exercises will help develop your ears for as you master the sound of scales and relationships of notes, application to improvisation will aid your development.

In my development, the "Technique of the Saxophone" Volume I, Scale Studies, by Joe Viola has been my inspiration and lifelong resource. This book can be applied to all instruments and Mr. Viola's approach to Scale, Interval and Chord exercises will help you form a strong foundation for Jazz Improvisation across many styles. This is published by Berklee Press and is available from on line sellers such as Amazon.com or at many music stores. I have included examples in C Major in Chapter 1.

Keep a music notebook handy. As you study or hear music, make notes. If you do not understand a concept, write it down and then research it. I throw out a lot of information, but in some cases, may not go into enough depth or you may become confused. Thus return to your notes for review and to help track your progress.

An example: Recently as of this writing, I was noticing that my command of an approach to playing diminished scales on flute was not together. So I returned to an old notebook of patterns to find one that UMass Professor Archie Shepp turned us onto back in 70s. It

The image displays five systems of piano accompaniment notation, each labeled 'PIANO' on the left. Above the first system are chord symbols: C, DMIN7, G7, and C. The notation is written on grand staves (treble and bass clefs) in common time (C). The first system shows a full piano accompaniment with chords in both hands. The subsequent four systems show 'Shell Voicings', '3 Tone Chord Voicings', '4 Tone Chord (A Form) Voicings', and '4 Tone Chord (B Form) Voicings' respectively. Each system illustrates different ways to voice chords, with notes often beamed together and some notes held across measures.

was an inspiration as I thought back to the sounds of patterns being played in the practice rooms.

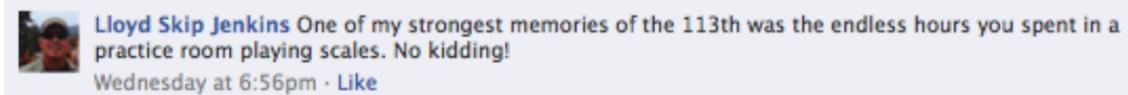
With all the information that will be presented, please remember that Jazz is an Aural art. We study music theory to analyze and help understand but never replace the sound and listening to it. Listen, listen, listen and try to understand what is happening during a performance. Never be discouraged and always explore all types of music and art. You have to love music so be open.

And always remember the traditions and masters that have preceded you.

~~~~~

An odd coincidence!

I had to copy in the following comment from my Facebook page at about the same time I was editing and augmenting Chapter 1.



I served in 113<sup>th</sup> Army Band with Skip back the early '70s at Fort Knox, Kentucky. Skip was commenting on my FB Wall entry about Dave Brubeck with a Link to "Take 5" which I posted on December 5, 2012.

The above styles are important to all Jazz performers especially bass and drums. A goal in this text is to provide a starting point for approaching the piano to support improvisation studies.

## Chapter 11: Jazz Piano Voicings

Piano is my passion. With that said, I played my first music on my Aunt's grand piano and have been hooked ever since. Although my mother was an accomplished pianist, we did not own one growing up, so my first instrument was clarinet. Even so I was always drawn to the piano.

Once I starting to attend UMass, I was able to find pianos with which to experiment. After graduation, I worked on the Piano while serving in an army band and became proficient enough to perform on keyboards in various ensembles. I was being pulled between Sax, Clarinet, Flute and Keyboard based on needs. All during this time, I was studying voicing's and styles using John Mohegan's books. Piano was key to my arranging and composing in the while serving with an Army field Band and throughout my life.

Upon my returning to UMASS for my Masters degree, I got to take keyboard classes and private lessons. This helped a lot, but in the end it was devotion to Jazz that kept me going.

The point here is that every musician needs to work on the piano. And what is great today is that there are many excellent and affordable electronic pianos that although never a replacement for the "real thing", can allow almost every student and professional to have an instrument for practice, composition and enjoyment.

Other than the soap box, I can not at this time come close to touching all concepts of piano performance. The piano in performance is:

- A lead or melody Voice
- Harmonic Voice
- Rhythmic and Time Voice

Challenges in Jazz piano performance range from knowing tunes to playing under the group in support to leading the group. There are many styles to master some being very challenging including:

- Latin, Clave, Som, Montuno beats and styles such as Rhumba, Bolero, Bossa Nova and etc
- Rhythm and Blues and Boogie Woogie Bass Piano styles
- Swing
- Bop, Hard Bop and Post Bop Schools and Styles
- Fusion and Rock
- Cocktail Piano
- Stride and Rag
- Waltzes

## Chapter 2: Exercises to Build Technique, Refine the Sound and Train the Ear.

The following exercises are based on the C Major Scale as found in "Technique of the Saxophone - Volume 1: Scale Studies" by Joseph Viola

The book spells out these exercises through the 12 Major Keys. If you can transpose and practice these in the other keys without writing them out or using the book, you will be well on your way to developing your improvisational skills.

Technique of the Saxophone - Volume 2: Chord Studies is also recommended.

### C Major Scales and Modes Ascending

The image displays eight staves of musical notation for C Major Scales and Modes Ascending. Each staff begins with a treble clef and a key signature of one sharp (F#). The notation includes various rhythmic patterns and fingerings for ascending scales and modes. The staves are numbered 1 through 29, indicating the measure number. The notation is presented in a clear, legible format, suitable for a music book or exercise sheet.

### C Major Scales and Modes Descending

The image displays eight staves of musical notation for C Major Scales and Modes Descending in 4/4 time. The first staff shows the C major scale ascending and descending. The second staff shows the Dorian mode ascending and descending. The third staff shows the Phrygian mode ascending and descending. The fourth staff shows the Lydian mode ascending and descending. The fifth staff shows the Mixolydian mode ascending and descending. The sixth staff shows the Aeolian mode ascending and descending. The seventh staff shows the Ionian mode ascending and descending. The eighth staff shows the Locrian mode ascending and descending. Each staff begins with a measure number (5, 9, 13, 17, 21, 25, 29) and ends with a whole note chord.

### Chapter 10: Ear Training, Sight Singing and Keyboard Harmony.

Classic studies in Ear Training and Keyboard harmony go a long way to help understand how songs work. They also help with styles.

There are two principle approaches to Ear training:

- Movable Do
- Fixed Do

Do is taken from the formal study of Solfege. The classic “do, re me, fa, sol, la, ti, do”. Movable is based on the Major and Minor scales. Here you learn to hear individual notes as related to keys and tonal centers.

An example is to use Movable Do to hear the starting notes of a tune. For example “Take the A Train” begins on the 5<sup>th</sup> or G in the key of C. “Watch What Happens” begins on 3<sup>rd</sup> or G in Eb. After many years of work, I can pick out notes as related to keys. The trick and great challenge is hearing modulation between keys. Another challenge is to pick out tunes while you or others are playing.

Fixed Do works with intervals. Here you learn relationships between notes. My personal experience has been that movable do has helped me more than fixed with Jazz. But others may feel that fixed is more helpful. I recommend giving both a try.

The best approach to ear training in Jazz is to sing along with your playing if you can. A most common technique is singing lines as you play keyboard or string instruments. Piano great Oscar Peterson is legendary for his singing along with his piano playing,

Sight singing is also really helpful and goes hand in hand with ear training. Try to sing songs new to you using the sheet music before playing them. As you play or sing the songs try to pick up the relationships of the notes to each other and to tonal centers.

I can’t emphasize how important keyboard harmony can be. You do not have to be a world class pianist to benefit from this study. I personally play a lot of music on piano in styles not considered Jazz. Hymns and Spirituals, Steven Foster Tunes, Strauss Waltzes and many others. Oddly enough it can be more difficult to play this material and make it sound great than Jazz that uses denser chord voicing’s.

Without my fear of being redundant, look around for materials on these topics. And put some work into it. Its not all about mastering your instrument. Many of the greatest masters of all times of all music could hear music, recreate on it and some cases innovate. And maybe could do so without being able to read music proficiently or did not grasp theory.

accompanying singers. What a revelation! Work on songs by great lyricists such as Lorenz Hart, Ira Gershwin and Cole Porter.

But in the end, it is all a matter of devotion and dedication. Know tunes cold so when you perform you are not fighting trying to figure out what is going on in the tune.

### C Major Scale in 2nds

Two staves of musical notation for the C Major Scale in 2nds. The first staff is in bass clef and the second is in treble clef. Both are in common time (C). The first staff starts with a measure number '5' and the second with '12'. The notes are: C4, D4, E4, F4, G4, A4, B4, C5.

### C Major Scale in Triads

Two staves of musical notation for the C Major Scale in Triads. The first staff is in treble clef and the second is in bass clef. Both are in common time (C). The first staff starts with a measure number '5' and the second with '7'. The notes are: C4, E4, G4, F4, A4, B4, C5.

### C Major Scale in Tetrads (7ths)

Three staves of musical notation for the C Major Scale in Tetrads (7ths). The first staff is in bass clef and the second and third are in treble clef. All are in common time (C). The first staff starts with a measure number '9' and the third with '15'. The notes are: C4, E4, G4, B4, A4, F4, D4, C4.

Some tricks for your practice sections.

1. Begin by slurring all the notes. Use a metronome and increase speed as you master these.
2. Try different articulations such as tongue/separate every note. Use jazz slurring such as the following.



3. Practice without your instrument by thinking through the fingerings.
4. Try to hear each note before you play it.
5. Once all keys are mastered, play exercises through all the keys starting with a degree of the scale. For example C, Db, D, Eb, E and etc. Ascending and Descending chromatically. Also via Cycle of 4ths as in C, F, Bb, Eb, Ab, Db, Gb, B, E, A, D, G, C.
6. Strive to develop, practice and perform with out written music.

Special Notes on Melodic Minor:

We will be covering minor keys and scales in subsequent chapters, however it is of value to mention that these have special meaning for Jazz not only as the principle keys for tunes such as Blue Skies or My Funny Valentine or those based on minor blues but also played in improvisations over tunes in Major keys.

The Melodic minor is not only quite important; it can easily be applied to these exercises by simply substituting the flatted third of the scale. In C Major this would be to replace E with Eb. Once you are comfortable with the Major keys, practicing Melodic Minor should not be difficult at all.

Note: Here we play the Melodic minor with the same notes while ascending and descending. Traditionally, the scale is taught where the natural minor is played when descending. You would play Bb and Ab.



Often on a Jazz Set, musicians may play unrehearsed music. For those not familiar with the changes of a selection, the musician calling the tune may describe the changes as follows:

“Watch What Happens”

Key is Eb

A section is like “Take the A Train”.

Bridge goes to G and cycles back like “How High the Moon”.

### Additional Notes and Soap Box

In earlier days, Jam sessions were common. Musicians got to practice spontaneity under varying conditions. What got musicians like Charlie Parker through was knowledge of songs. Examples include all the variants on

“I got Rhythm”

“Blues”

“Whispering” (Irving Berlin)” and “Groovin’ High”(Dizzy Gillespie)

“How High the Moon” and “Ornithology” (Charlie Parker)

“Scrapple from the Apple” (Charlie Parker) and “Honey Suckle Rose”

“Cherokee” and “KoKo” (Charlie Parker)

“Back Home in Indiana” and “Donna Lee” (Charlie Parker)

Plus many other tunes that he learned and mastered out right. To Bird genius was listening to masters like Lester Young and others early on and then expanding and innovating. And bringing a lot of followers along with him.

We often hear comments that a musician has great ears. One approach is that even though he or she may not have played a specific tune, chances are really good they have played others that are similar.

Another issue in current day playing is that the REAL Book and other fake books have become very prevalent. Musicians may learn the tunes in those books. But when tunes that are called on a set are not in those books, the musician may become lost. Here is where listening and picking up on chord patterns really helps.

There are always questions about reading music on Jazz sets. Ensembles performing arranged music is one thing, but small groups playing Jazz standards is another. Strive to learn songs especially the changes. This goes for all instruments and singers too. Also, try to find the original direction and meaning of the lyrics, the melody and the harmony. It can be very brutal when a rhythm section is interspacing lots of substitutions on standards. If they make sense and do not alter the sense of the tune, everyone can blow through the tune even if they are applying different chords and it will sound great. It comes back to common functioning of the changes.

I can’t say enough about getting into the lyrics of tunes. I never really knew about this aspect until later in life when I began trying to sing along to better understand

## Chapter 9: Common Chord Progressions

As I have worked on my playing and with students over the years I have found that practicing and performing over standard changes goes a long way to help develop proficiency.

To this point we have covered various aspects that can be applied to help you learn to play over changes. But Jazz is an aural art. An important part of your development is to learn changes that are common to many tunes. So once you can solo on one, you can solo over others that are similar.

The most common set of changes is the 12 Bar Blues. At it's simplest it is I IV I V I. It can get embellished with various chord substitutions but in the end it follows this form.

Here are some changes along with songs that use these changes. Note some may veer off a bit but the overall pattern is similar.

### Rhythm Changes (I vi ii V)

- "I Got Rhythm", George and Ira Gershwin
- "Dexterity", Charlie Parker
- "Oleo", Sonny Rollins

### A Trane (I II ii V I)

- "Take the A Trane", Billy Strayhorn
- "Girl From Ipanema", Antonio Carlos Jobim
- "Watch What Happens", Michelle LeGrand

### Blue Moon (I vi ii V)

- "Blue Moon", Herschel Gilbert
- "Heart and Soul, Hoagy Carmichael
- "Perfidia", Alberto Dominguez

### Starting on ii V

- "Satin Doll", Duke Ellington
- "Tangerine", Johnny Mercer, Victor Schretzinger
- "Speak Low", Kurt Weill
- "Honey Suckle Rose", Thomas "Fats" Waller

### Moon Changes (Cycles through ii V progressions)

- "How High the Moon", Morgan Lewis
- Bridge to "Cherokee", Ray Nobel
- Bridge to "Watch What Happens", Michelle Legrand
- "Laura", David Raskin

## Chapter 3: Basic Keyboard Skills

Since the initial release of this booklet, I have received suggestion that guidance on keyboard use to aid in hearing harmony with melody would be helpful. So this section is placed here and can be skipped if not required nor of interest for the reader. Or you can return after working through concepts presented later on in the booklet.

Although the focus here is on piano keyboard instruments, guitar and other instruments that can play chords can also help.

The term voicing refers to the placements of notes of chords. The simplest voicing is the root, third and fifth of a chord and is called a "root voicing". For a C Major chord this would be built with the notes C-E-G.



Figure 1 – Root Voicings

Although root voicings are easy to spell and play on the piano, they do cause the left or right hand to jump around the keyboard when performed. Working with voicings that are based on the third or fifth of the chord being the lowest note helps simplify movement of the hand. With just a little bit of practice, students can develop the ability to work with simple melodies and harmonies to aid in studying theory.

In the following example, the first, third and fifth fingers of either the left or right hand should be used to play the notes. Once notes are spelled out, study the relationships of the fingers. With a little practice, it will be easy to move through chords.



Figure 2 – Inverted Voicings

Inversion is a term that refers to spelling chords with the third, fifth or other tone placed at the bottom of the chord. It is mentioned here since jazz performers may run across the term.

A common practice in early tonal music was to include the 7<sup>th</sup> on the chord built on the 5<sup>th</sup> degree of the scale. As will be seen later on, this is termed the Dominant 7<sup>th</sup> chord, which is G<sup>7</sup> in Key of C major. The following voicing can be used for G<sup>7</sup>.



Figure 3 – Alternate G Major chord voicings

A simple piano arrangement of “Twinkle Twinkle Little Star” demonstrates a simple melody in the right hand with chords in the left. Experiment with chords and the voicings. For example try substituting the 3-note G<sup>7</sup> voicing that uses B-F-G for the root voicing versions. Also try substituting G<sup>7</sup> for the C and F chords in measures 5 and 7.

**PIANO TWINKLE TWINKLE LITTLE STAR**

For more information do a web search on “Keyboard Harmony”. A good book that I used in a college course is “Harmonization at the Keyboard” by “Arthur Frackenpol”.

## Chapter 8: Notes on Modes

Led by John Coltrane beginning in the 1960's, composition and improvisation on modes notably the Dorian Mode or D to D in C major became prevalent. It is always interesting that although modal Jazz music is often discussed as a reaction against tonal idioms, it actually is not. It has far-reaching and historical roots in all music. If you listen to many of the masters playing modal songs, you'll hear material from many sources including major and minor tonal keys. And you will hear applications of modal techniques in tonal tunes.

If you practice and work with chord scales, modes will be very natural. However never lose sight of the Dominant Tonic (V-I) progression. As you listen, pick up on where lines are not necessarily modal and may highlight ii-V I progressions.

There are many approaches to playing on modes. Pentatonic scales work well as do lines built over ii V progressions. Songs built on modes tend to dwell on modal centers for quite a while. In some ways, compositions in this style can be seen as an important contrast to tunes with quickly changing tonal centers. Compare John Coltrane's classics "Giant Steps" and "Count Down" to "A Love Supreme".

Check out So What by Miles Davis and Impressions by John Coltrane. These are 16 Bar forms that are composed of 8 bars of D (dorian) and the 8 Bars of Eb (dorian). So you can apply ii V patterns from C and Db which highlights the importance of being proficient in all keys not just a few.

The piano staves of the following shows two common voicings applied to modal playing:

Quartal voicings as applied by Bill Evans on Miles Davis' "So What".  
Suspended voicings as applied by McCoy Tyner on "Equinox" by John Coltrane

Note that Equinox is a modal blues in C Minor. Check out recordings of both of these tunes for classic modal playing.

## Chapter 4: Tonal Music

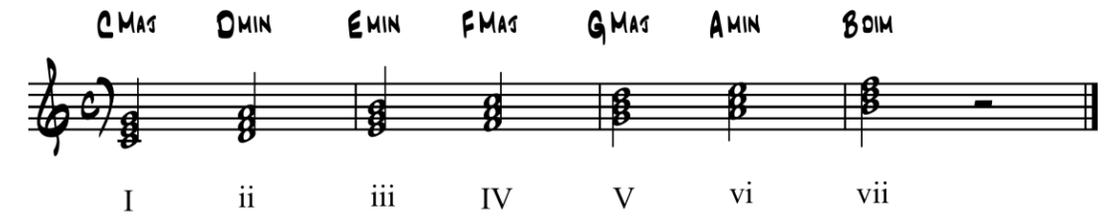


Figure 3 – Scale Chord (Triads)

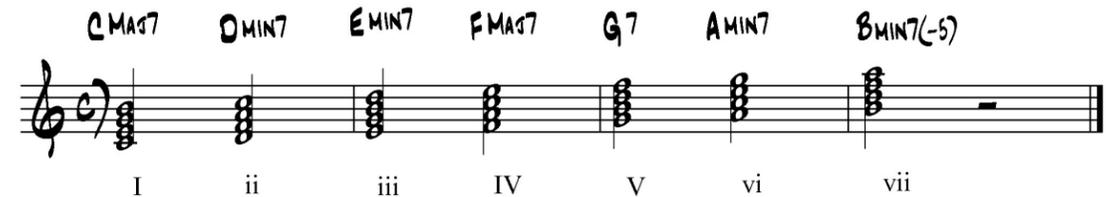


Figure 4 - Scale Chords (7<sup>th</sup> Chords)

Tonal Jazz performance is centered on composition and improvisation over chords.

**NOTE:** *The first discussions will focus on Major keys. Concepts covered initially with Major keys will be applied to Minor keys later on in this booklet.*

A starting point is to understand the natural chords found by stacking notes in thirds using each note of the major scale as a root. We will refer to these chords as "scale chords". Figures 3 and 4 shows scale chords built on the C Major Scale.

There is history and subtle nuance through styles of music that address the number of notes in the stack. Although we will focus on four notes in each chord we may refer to chords of 3 tones (triads) up to 7 (7<sup>th</sup>, 9<sup>th</sup>, 11<sup>th</sup> and 13<sup>th</sup> Chord) tones.

Traditional music theory begins with the study of 3 note (Triad) chords as shown in Figure 3. Early Jazz harmonic style was also predominantly based on triadic structures. An exception to this focus on triadic harmony was applied to the chord built on the 5<sup>th</sup> scale position, which was often spelled and performed with the 7<sup>th</sup>. Later styles of Jazz expanded the harmonic vocabulary to use 4 note chords and beyond.

**Listening:** Listen and analyze various music styles.

A good starting point is to study Steven Foster compositions such as "Camp Town Races" and "Old Folks at Home". Then Ragtime followed by early New Orleans and Jazz Styles. Then work into the Swing and then Bop eras. These will provide a sense of the evolution of harmonic structures as well as rhythm, melody and form. Up to the swing period, triads were predominantly used. The swing period moved into 4 note 7<sup>th</sup> chords and the Bop and later periods chords began to add notes above the 7<sup>th</sup> (9<sup>th</sup>, 11<sup>th</sup> and 13<sup>th</sup>).

Based on the root tone, the chords will be numbered I through vii using Roman Numerals where major chords will use upper case and minor chords will use lower case Roman Numerals.

**NOTE: There is an approach in Jazz Improvisation education and performance where practitioners study and thus learn the chord structure of compositions using numbers rather than letters. This is termed “functional harmony”. This is invaluable when transposing tunes into keys such as for singers or playing on multiple instruments such as E Flat and Bb Saxophones and Flute or Clarinet. This booklet will incorporate this approach when discussing chord progressions. For example the first four measures of the “Twinkle Twinkle” example can be described as I - IV - I - IV - V - I.**

In traditional music theory, scale notes and associated chords are named as indicated in Table 1. The table shows 3 Note (Triad) and 4 note (7<sup>th</sup>) chord names.

| Position | Name         | Triad      | 7 <sup>th</sup> Chord                 |
|----------|--------------|------------|---------------------------------------|
| I        | Tonic        | Major      | Major 7                               |
| ii       | Supertonic   | minor      | minor 7                               |
| iii      | Mediant      | minor      | minor 7                               |
| IV       | Subdominant  | Major      | Major 7                               |
| V        | Dominant     | Major      | 7                                     |
| vi       | Submediant   | minor      | minor 7                               |
| vii      | Leading tone | diminished | minor 7 (flat 5) or half diminished 7 |

Table 1 – Chord Names

When you study beginning music theory you will find that the scale chords are categorized as follows:

Primary Chords are I , IV and V  
Secondary Chords are ii, iii, vi and vii.

**Principle 1:**

*When Tonal music is being performed it is either at rest in a key or moving towards rest in a key.*

The primary chords are classified as follows:

- I Tonic, At Rest
- IV Subdominant, Moving Towards Rest
- V Dominant, Moving Towards Rest

flavor at the end of a section. For example when the last two bars of a tune sit on the tonic chord. Jazz musicians will stick a turnaround in there to propel the performance into the next chorus of the tune. Thus “Turn it Around”.

Another way to apply the harmonic minor is treating the Dominant cord as 7<sup>th</sup> with flat 5. For example in A minor, E7b5 uses the notes of the harmonic minor. Check it out.

The following example is a 12 bar Blues with (1<sup>st</sup> Ending) and without (2<sup>nd</sup> Ending) a turnaround. The turnaround here is one of the most common in Jazz and is the I VI<sup>7</sup> ii V<sup>7</sup> progression. I also show a common use for the harmonic minor over the A7-9 in measure 8. When this and common permutations are played at this juncture in the blues, it highlights an improviser’s study and implementation of jazz master performances.

**TURNAROUND BLUES** JAKE EPSTEIN

A good tip is to listen for major and minor keys in recordings and live performance. Here are some tunes that are in minor keys.

- Autumn Leaves
- In A Sentimental Mood. (Can be treated as Modal)
- My Favorite Things (Can be treated as Modal)
- Mr PC (minor blues)
- Softly as In a Morning Sunrise

## Chapter 7: Minor Keys, Scales and Licks.

Minor keys provide important material for composing and improvising.

1. As the key of the tune. It starts and/or ends on a minor key.
2. Principle sections for example bridges often move to a minor key.
3. As a source of interesting material even when played over major tonal centers.
4. Popular modal tunes can pick up material from minor keys.

Minor keys use the key signatures of Major keys that are a minor third above the minor key's root tone. For example D minor and F Major share 1 flat as the key signature. When the notes are same as found in the key, the scale is called the natural minor. Another way to look at this is that a minor key can be built on the mode from the 6 to the 6 of the major key.

The image displays musical notation for several chords and scales. At the top, chords are listed: A MIN7, B MIN, C MAJ7, D MIN7, E MIN7, F MAJ7, and G7. Below these are three staves of music. The first staff shows chord symbols: i Natural Minor, ii, iii, iv, v, vi, vii, i. The second staff is labeled 'Harmonic Minor' and the third 'Melodic Minor'. The notation includes treble clefs, a common time signature (C), and various note values and accidentals.

The scales above are the three principle minor scales. Natural (Mode), Harmonic and Melodic.

As discussed in Chapter 2, the melodic minor scale can be seen as the major scale with the third (C# in A Major) lowered by one half step. If you have been focused on practicing major scales, this fact can help you save time learning minor scales.

The harmonic minor has a special meaning in Jazz. It is often employed on turnarounds. A turnaround is an extension to a tonic (I or i) chord that gives a performance some extra

“Chord Progression” refers to moving from chord to chord in a performance. Jazz musicians also call these “chord changes” or simply “changes”.

Two common progressions in Tonal music are:

Tonic -> Dominant -> Tonic

Tonic -> Subdominant -> Dominant -> Tonic

In C Major these are:

C Major -> G Major -> C Major

This can also be expressed as:

I -> V -> I

C Major -> F Major -> G Major -> C Major

This can also be expressed as:

I -> IV -> V -> I.

A common variation is

C Major -> F Major -> C Major -> G Major -> C Major

Or:

I -> IV -> I -> V -> I

These two progressions are found through out compositions composed for or adapted for Jazz performance. The second progression (I -> IV -> I -> V -> I) when spread over 12 bars is a fundamental blues progression.

In Tonal Music, secondary chords take on the function of primary chords. These usually align with chords a third above the root. A way to look at this is that a 4 note (7<sup>th</sup>) secondary chord can be analyzed as having three of the same notes as a 4 note (7<sup>th</sup>) primary chord.

In Jazz, the common alignment of primary to secondary chords is as follows using C Major:

Tonic C (I), A Minor (vi), and E minor (iii)

Sub-Dominant: F Major (IV), D minor (ii)

Dominant: G Major (V), B min7 (-5) (vii)

Please compare the chords using the scale chords listed above. For example comparing Dmin7 (ii) and FMaj7 (IV) reveals that both chords have F – A - C in common.

I hope some of you are wondering about key as found in Principle 1:

Although many songs stay in one key, more contemporary songs move through many keys. In some cases, a sense of key can become less clear than in other cases. For example many songs begin on I (C Maj in the Key of C) and go to II7 (D7 in the key of C). D7 is the V7 in the key of G but the ear may still hear C as the key. This is one of our initial exceptions to a rule. There will be many more exceptions that will work based on styles and eras of music. It is all part of musical evolution.

In your readings and studies you may run into the term “tonicization”. This refers to changes that refer to the Tonic inside a composition. For example the C and G keys mentioned in the last paragraph. Also, the term “Key Center” is often used.

Just as we can discuss movement in chord progressions the same is true in melody.

### Principle 2:

**When notes performed are members of the current chord, then they will be consonant. If notes are not in the chord, they will be dissonant. Dissonant tends to resolve to consonance.**

As styles have developed what is considered a chord tone and not a chord tone has become blurred. For example C Major 9 may sound great at the end of a Jazz performance but playing it at the end of a Mozart piano composition may sound strange. Context and style come into play in all music.

However for the sake of this discussion, we will generally stay with the 4 members of the 7<sup>th</sup> chords as being consonant and the other three being dissonant. Again, there will be exceptions.

Voice leading refers to the practice in harmony of movement towards the nearest note when chords change. So if for example a musician is playing or singing in C Major on a B as part of a G (V) chord, then moving to the note C for resolution to the Tonic (I) chord makes musical senses. It is also easy in musical terms to accomplish. As distance between notes increases, it can become more difficult to find the note. This is very true for singers but also challenging for instrumentalists.

The following example is a hymn showing voicing leading in the top 3 Voices. Here is the precedence for note movement between chords.

1. Keep same note
2. Move ½ step up or down.
3. Move a whole step up or down.

Some more of my favorites:

The image shows a musical score with ten staves of music. The music is written in treble clef and appears to be a single melodic line. The notation includes various rhythmic values, accidentals (sharps, flats, naturals), and rests. The staves are numbered 1 through 10 on the left side. The music demonstrates various harmonic and melodic techniques, including chromaticism and intervallic leaps.

Due to time constraints, I have not included some common exercises using these scales. I will do so in a future version.

Here is a composition based on “Oh Lady Be Good” by George and Ira Gershwin that applies Diminished scales. Note to use the diminished scale based on third of V7 chords. And obviously the root of Diminished 7<sup>th</sup> chords.

Check out measure 6. The descending diminished scale over the C7 and starting on the 3 of the tonal center is a favorite of mine. It works on V and over ii V.

## Its Good

Jake Epstein

Chord progressions for 'Its Good':  
 F B<sup>b</sup>7 A min7 D7  
 G min7 C7 F G min7 C7 F  
 B7 B<sup>b</sup> B dim7 F  
 G7 G min7 C7 F  
 B<sup>b</sup>7 A min7 D7 G min7 C7  
 F

Chord progressions for exercise:  
 C F C G7 C

### Principle 3:

*To play “inside the changes”, the performer outlines and highlights chords and then at the very last moment, moves into the next chord often via voice leading.*

Using voice leading resolves melodic movement around the 3<sup>rd</sup> and 7<sup>th</sup> of subdominant, dominant and tonic chords. Listening to and analyzing Jazz solos will show that the master improvisers use voice leading to create logical movement.

Chord progressions for exercises:  
 D min7 G7 C  
 D min7 G7 C  
 D min7 G7 C

The above three short melodies demonstrate playing chord tones then moving via voice leading to the next chord.

## Guide Tones

The term Guide Tones refers to building single note lines that highlight harmony. Guide tones can be heard in improvisation and compositions.

The following example is based on the chord changes to “How High the Moon” by Hamilton and Lewis.

That's it for now. The rest of the book will attempt to highlight these principles in developing melodies for improvisation.

## Chapter 6: Symmetric scales - Diminished, Dominant, Whole Tone and Blues

Symmetric scales have even numbers of notes and thus stay in sync with chords as they move through octaves. Here are examples of the four types of scales.

The Blues Scale comes out of African American Traditions where the flatted 3<sup>rd</sup>, 5<sup>th</sup> and 7<sup>th</sup> are emphasized.

There are just three diminished scales. Thus C, Eb, Gb and A diminished scales have the same notes. Same is true for Db, E, G and Bb and D, F, Ab, B diminished scales.

I would invest some time on learning the diminished scale. A way to look at the scale is to see and hear it as a series of alternating whole and half steps. Also check the first 4 notes and the second four notes. The intervals are whole step then half step. Another tip is to play a diminished 7<sup>th</sup> chord and then add chromatic auxiliaries below each chord tone.

Whole Tone scales are a series of whole steps. They work over V7 chords especially those with a raised or sharpened 5<sup>th</sup>. This is also termed an Augmented 7<sup>th</sup> chord or V7+5 to indicate an Augment 5th hence the scale name.

The Blues scale as notated shows 7 notes. Although not technically correct per splitting the octave, all notes work since they become consonant when playing in a style based on the blues. From rhythm and blues to Country to progressive jazz and others.

**Chapter 5: PPP, Patterns for Practice and Performance**

Developing and studying melodic phrases and patterns that work over chords is an important aspect of Jazz study. When a pattern becomes common to the individual and are often used or borrowed by other players, they become known as “Licks”. Many if not all improvisers use many if not all the patterns discussed. They make up the fabric of Jazz Improvisation.

**The ii V7 progression**

There have been volumes written and performed in Jazz on the ii V7 progression. A goal for most Jazz musicians is to be able work through these in practice and performance. This will be a foundation for developing the ability to not only play but also hear ii V7 progressions.



Very popular over ages



This phrase was one of my first revelations into improvisation. This is found in Jerry Coker’s first book on Jazz Improvisation.

1. This is a ii V7 line in C.
2. It uses just chord tones.
3. All tones are part of the C Major Scale.
4. The phase can be heard as moving towards rest in the key of C.
5. The top note C leads to the B. 7 in one chord moves to 3 in the next chord.

Begin your practice by running this line through keys. I am not going to do that for you except to show you on this one example and some ideas for exercise. If you can do this without writing these out, then so much the better.



In the above example, we play through C Major, Bb Major, Ab Major, E Major and D Major. Notice how we moved from Flat to Sharp keys. You may want to work these exercises into your scale and arpeggio studies especially on B, Db and Gb.

You need to run this exercise through the other 6 Keys. Notice that the keys move down by whole steps and that all chords are a fifth apart. Practicing exercises such as this is commonly referred to as running through a “cycle of fifths” or “cycle of fourths” depending if go down or up to new keys.

Here are more chord progressions that you should practice.

Down by Minor seconds. C Major -> B Major -> Bb Major .... C Major

Up by Major seconds. C Major -> Db Major -> D Major .... C Major

Cycle of Fifths through the keys. C Major -> F Major -> Bb Major .... C Major

Expanding Lines:

So, at this point you have some work cut out for you. Take all the patterns and apply them. Use your ear and don't write them out.

Some of these may sound familiar. As you study the masters, you will find that even the great innovators such as Charlie Parker, John Coltrane, Miles Davis, Oscar Peterson and others have patterns that they often use. And many are adopted by many others. Here are examples.

One of my favorite Trane licks:

Trane Bessie's Blues

Chromatic Auxiliaries – Lee Morgan

Examples based on C Major (Tonic)

What about Measure 5 above? F# to A then resolving to G. This is a common pattern outlining a chord tone that is the G in Measure 6.

Moving forward, examples will be based on the ii V7 in a key but will resolve to the I chord. You can make variations for your exercises by incorporating the I chord or by leaving it out.

In the following we add chord tones that resolve on C which is the tonic note of the key of C Major. You can also resolve to E.

Now we are going to break into new territory by adding passing notes between chord tones. Note that chord tones are on the beat and passing tones are off the beat. In reality here, the passing tones are scale tones of the key center, but we will cover using non-scale tones later on.

Many texts on Jazz theory and Improvisation teach building phrases using the scales associated with each scale chord. In traditional theory these are termed modes. Although we will touch on modes, I refer you to other resources to learn more about the modes and modal music including Jazz Styles of the 1960's and beyond that focus on Modal styles.

This first example shows a representation of playing over the ii V7 I progression using chord scales (modes).

Notice in the above how the G was repeated. If we had moved to the A and continued on, then non chord tones would be on the beat and thus we would not be outlining the chord tones.

In the following two examples, I show the ii V I progression spread over 4 bars. Although we will cover this progression in more depth later on, I have placed these here to highlight what I believe is an important point.

Playing strictly over changes via scales doesn't work very well. Those musicians that learned via the aural (playing strictly by ear) approach with out a theory background or printed music realized that in order to play inside the changes they had to introduce skips or chromatic passing tones. This is due to Major, Minor and Modal scales being based on 7 notes. So when you simply run through scales as determined by chords, moving across an octave places non chord tones on the beat. So unless you stay within an octave as in the first example above, then you have to skip to a chord tone unless by chance you have come to a tone that resolves to a chord tone.

The second example highlights getting out of sync when just running scales.

**Some personal reflection:**

Although my initial Jazz experience was playing clarinet in Junior High School in a traditional early New Orleans style band, I learned later on when studying and applying Jazz Theory based on playing scales (modes) associated with chords, that although a good starting point, it wasn't until I started transcribing solos and understanding principles I discuss in this document that I felt my improvisations made sense.

You might be well served to try to experiment by playing over scales as discussed here to get an understanding of the challenges. However, I believe that in the end, starting with the chords and expanding your repertoire of ideas and themes will serve you well.

Although at first you may sound like you are repeating yourself, as you experiment and learn you will develop the ability to create "on the fly" building on what you know intellectually and what you hear. It takes time so be persistent and you will be rewarded if you love the music.

More examples using chromatic passing tones.

Did you notice I slipped an auxiliary tone in there on the C# to D on bar 7 above?

Check out the G to G Flat to F fragment in measure 5, 7 and 9. This is used quite often by improvisers. Try playing this sequence and then come down the scale and repeat. This makes an 8 note scale that stays in sync with the G7 chord when passing over the octave. This forms the basis of what is often referred to as the dominant scale.

### Chromatic Passing Tones:

Many of the phrases used in Jazz improvisation utilize chromatic passing tones. When you listen to the masters, you will find common themes through many of their solos. Although we will not analyze their work here, it is recommended that you listen for common themes. You may want to transcribe these and practice them.

At this point I need to address the concept of plagiarizing or stealing themes (licks). Feel free to learn from the Masters for they learned from some one else. Sure there will be new approaches and modification of contemporary or past approaches to make them unique, however our and future generations' interpretation, performance and embellishment on their work will pay them homage and help us remember their work. However, we must never forget them.

As a starting point, whenever there is a major second between chord tones, chromatic tones can be applied. Here are some examples.

Three musical staves in treble clef, 4/4 time, showing chromatic passing tones for a ii-V-I progression: DMIN7, G7, and CMaj7. The first staff starts on the 3rd line (F), the second on the 4th line (G), and the third on the 5th line (A). Each staff shows a melodic line with chromatic passing tones between the chord tones of the DMIN7 and G7 chords, and a final note for the CMaj7 chord.

An important principle that I have neglected to this point but should be obvious to any musician is:

### Principle 4

*Since Jazz musicians improvise over tunes whose changes move through many keys, its important to study and practice scales, arpeggios and patterns through all 12 Major and Minor keys. Embellishing arpeggios with diatonic (scale) and chromatic tones above and below often-termed lead and auxiliary tones is also a good exercise*

The following are based on ii -> V7 -> I progressions over two bars in C Major. Play and Sing these. Singers and Instrumentalists can use the piano or guitar to assist but with practice these will become natural and part of your musical vocabulary. Analyze the melodies for passing tones. And practice through keys.

Six musical staves in treble clef, 4/4 time, showing chromatic passing tones for a ii-V-I progression: DMIN7, G7, and CMaj7. The staves are arranged in two columns of three. The first column starts on the 3rd line (F), the second on the 5th line (A), and the third on the 7th line (C). Each staff shows a melodic line with chromatic passing tones between the chord tones of the DMIN7 and G7 chords, and a final note for the CMaj7 chord.

The following reverse the sequence of the notes of the D min7 chord. I often think of this as starting with the root (tonic) note of the key. In this case the C in C Major.

Six musical staves illustrating a descending eighth-note scale for the D min7, G7, and C major chords. The first staff starts on C4. Each subsequent staff starts on a higher octave: 5, 6, 7, and 9. Chord symbols DMIN7, G7, and CMAS are placed above each staff.

The following examples add passing tones to the Dmin7. You should realize by now that you can build your own patterns. Although working through these examples may seem and sound mechanical, eventually you will find ones that you like and will weave them into solos and compositions.

Six musical staves illustrating eighth-note patterns for the D min7, G7, and C major chords with passing tones. The patterns start on different octaves: 5, 6, 7, and 9. Chord symbols DMIN7, G7, and CMAS are placed above each staff.