

Tools For Improvisation

A brief manual on the fundamental
components of jazz theory

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TOOLS FOR IMPROVISATION

PREFACE

Improvisation is more of an idea than a specific discipline, more of an art than a science. As a composer, I prefer to define **improvisation** as “spontaneous composition.” This is one of many ways to define improvisation, and it is up to each individual to adopt their own view of what improvisation might be.

In the medium of **jazz**, improvisation plays many roles. The most obvious role of improvisation in jazz is in soloing over the chord changes of jazz standards; but improvisation also affects the interpretation of a chart, the arrangement of a horn section, the voicing and rhythms of an accompaniment, and numerous other components of jazz music. In point of fact, good soloing is every bit as well-planned as any other aspect of a jazz performance, and requires a great deal of preparation, study, and rehearsal.

The following textbook was drawn from class notes written for a workshop given from Fall of 2012 to Spring 2013 at **Music Center of the Northwest** in Seattle, WA. These notes- and the eventual textbook- were written to fill a need: a well-organized, comprehensive theory book which addresses the most fundamental tools necessary for a good foundation in jazz improvisation. The tools in this manual can also be applied to any other improvisation-based musical medium, including rock, blues, bluegrass, modern experimental classical music, and contemporary pop; but in this book they are organized and presented from a jazz perspective.

The single most important concept in improvisation is **melody**. All good improvisation is grounded in the search for an expressive melody. While improvisation may also include broad swathes of gesture and texture, and may venture into the realm of the completely abstract in which notes function as individual components of sound and timbre, **melody** remains a critical idea in the mind of the modern jazz audience. As all music is a dialogue between performer and listener, it is a wise idea to keep the notion of **melody** firmly in the foreground as you develop your improvisational vocabulary.

Have fun, and thanks for reading.

-David Matthew Shere

Seattle, WA

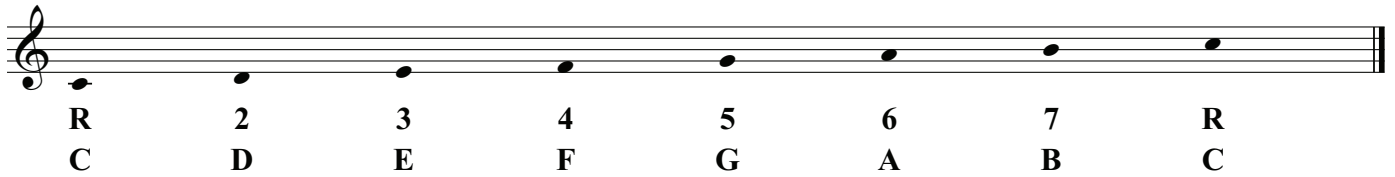
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Chapter 1- The Major Scale

C major scale- parent scale; mode I
(Also known as "C Ionian mode;" mother of all Western scales)

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- A **musical scale** is a series of notes arranged in order from lowest to highest, or highest to lowest.
- The **Major scale** is the basis for all Western music theory. It is also the most important scale that you can master technically on your instrument. The **major scale** is a **diatonic scale**, or a scale with 7 notes.
- The **musical alphabet** consists of the following seven letters: [ABCDEFG] These letters refer to the white keys on a piano keyboard and are known as **natural** notes.
- The **C major scale** is made up of the **natural** notes ordered from **C to C**: [CDEFGABC] This scale contains all the information that we will eventually need to construct the following musical objects:

1. intervals 2. melodies 3. arpeggios 4. chords 5. sequences 6. other scales

and numerous other musical ideas.

- In the above diagram, we are looking at the **C major scale** defined by two additional pieces of information:

1. **scale degrees** 2. **note names**

1.1 **Scale degree** is the number value assigned to a scale tone based on its order of appearance in the scale. For theory purposes, the first scale tone is usually referred to as **R** (for **root**) instead of **1** (although occasionally we will use **1** instead of **R**).

1.2 **Major scale degrees** are numbered [R234567].

2.1 **Note name** is the letter assigned to a note to distinguish it from other notes.

2.2 **Root** is the defining note of a scale, mode, or key; the letter that gives a scale, mode, or key its name.

- There are **five additional notes** in Western music based on the black keys of a piano keyboard. These notes are called **accidentals**, or **sharps and flats**.

- The symbol for **sharp** is [#].
- The symbol for **flat** is [b].

Each accidental has two names. The names of the **accidentals** are as follows:



3. A **natural** [♮] symbol is used to indicate a **natural** note after the occurrence of an **accidental** note with the same **letter name**. **Examples:** [C♯, C♮]; [E♭, E♮]; [A♯, A♮]; [G♭, G♮]



g. If we put all the **natural notes** and all the **accidentals** together, we get the **chromatic scale**:

C♯/D♭	D♯/E♭	F♯/G♭	G♯/A♭	A♯/B♭	
C	D	E	F	G	A B C

1. The **chromatic scale** corresponds with the order of the white and black keys on the piano keyboard.

2. The distance between any two adjacent notes in the **chromatic scale** is called a **half-step**.

Examples of half-steps: [C-C♯]; [B-B♭]; [E-F]; [G♯-A]; [E♭-D]; [D-D♭]

Chromatic scale



3. **Sharps** are typically used when **ascending half-steps** from one note to the next.

4. **Flats** are typically used when **descending half-steps** from one note to the next.



h. An **interval** is the distance between any two notes.

1. The **interval** between any two adjacent notes in the **major scale** is known as a **second (2nd)**.

A **2nd** is the distance from one note in the musical alphabet to another note one letter away.

Example: C to D is a **2nd**: [C-D]

2. There are two basic types of **2nds**:

2.1 **Major 2nd (M2)**- contains 2 half-steps from one letter to the next. **Example:** [C-D] = [C-C♯-D]

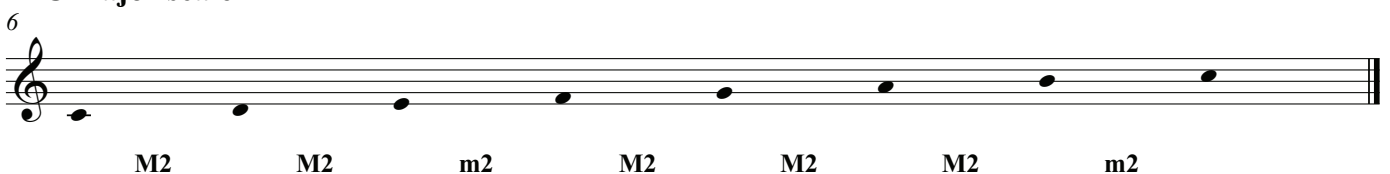
2.2 **minor 2nd (m2)**- contains 1 half-step from one letter to the next. **Example:** [E-F]

3. A **Major 2nd** is also known as a **whole-step**. A **whole-step** equals two **half-steps**.

j. The intervals of the **major scale** are the same regardless of the **root** of the scale.

k. Moving a scale or other musical object from one key to another is called **transposition**.

C major scale

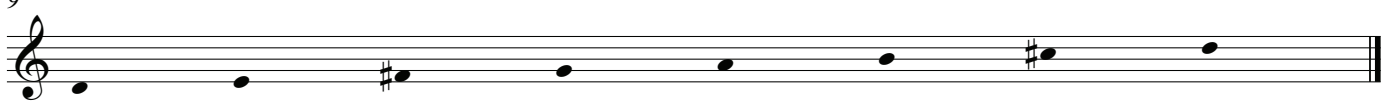


m. There are **12 major scales**, one for every note in the **chromatic scale**.

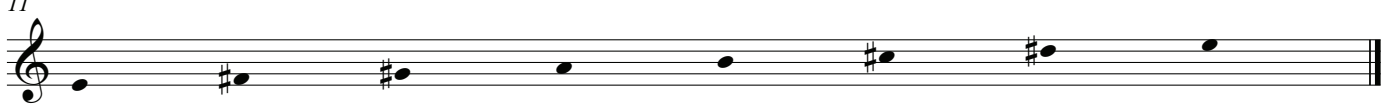
7 C major

8 D \flat major

9 D major

10 E \flat major

11 E major



12 F major



13 G \flat major

14 G major

15 A \flat major

16 A major

17 B \flat major

18 B major



Chapter 2- Major Scale Harmony

C major scale- parent scale; mode I
 (Also known as "C Ionian mode;" mother of all Western scales)

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a. When single notes are played one after the other in a given order, the resulting sound is called **melody**. A **scale** is an example of **melody**.

b. If two or more notes are played simultaneously, the resulting sound is called **harmony**.
 To "**harmonize**" a note or scale means to "**add harmony to**" a note or scale.
Harmony is classified in two ways:

1. **intervals**
2. **chords**

Per Chapter 1: h. An **interval** is the distance between two notes.

1.1 A **melodic interval** is the distance between two notes played one after the other.

1.2 A **harmonic interval** is the distance between two notes played simultaneously.

1.3 In this section, we are dealing with intervals known as **thirds (3rds)**.

A **3rd** is the distance from one note in the musical alphabet to another note two letters away.

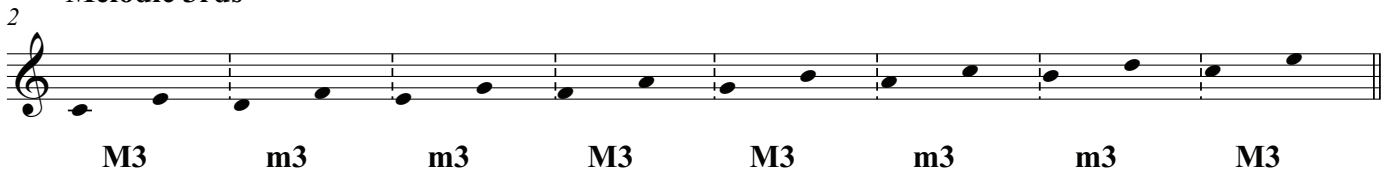
Example: C to E is a **3rd [C-E]**

There are two basic types of **3rds**:

1.3.1 **Major 3rd (M3)**- contains 4 half-steps from one letter to the next. **Example:** [C-E] = [C-C#-D-D#-E]

1.3.2 **minor 3rd (m3)**- contains 3 half-steps from one letter to the next. **Example:** [D-F] = [D-D#-E-F]

Melodic 3rds



Harmonic 3rds



Melodic triads (arpeggios)

4

C Dm Em F G Am B° C

I ii iii IV V vi vii° I

Harmonic triads (chords)

5

C Dm Em F G Am B° C

I ii iii IV V vi vii° I

Major minor minor Major Major minor diminished Major

2.1 A **chord** is a harmony containing three (3) or more notes.

2.2 An **arpeggio** is the notes of a chord played melodically.

2.3 The notes of any **chord** or **arpeggio** are referred to as **chord tones**.

c. A **triad** is a harmony containing three (3) notes. **Triads** are the most fundamental type of **chord**.

1. **Triads** are comprised of any two adjacent **3rds**, and occur naturally within the **major scale**.

Example: C, E and G are a **triad** [C-E-G]

2. **Triads** differ in **quality** based on the types of **3rds** they contain.

3. **Chord symbols** are shorthand notation used to indicate **chord quality**.

Example: Dm (D minor) is a **chord symbol**.

4. There are four basic types of **triads**:

4.1 **Major** [M3+m3]

4.2 **minor** [m3+M3]

4.3 **diminished** [m3+m3]

4.4 **Augmented** [M3+M3]*

*The **Augmented triad** is derived from the **Harmonic** and **Melodic minor scales**, and does not occur in the Major scale.

5. **Roman numerals** are used to indicate the **quality** of a **triad**, and the **scale degree** on which the **triad** is based.

I = Major; 1st degree

ii = minor; 2nd degree

iii = minor; 3rd degree

IV = Major; 4th degree

V = Major; 5th degree

vi = minor; 6th degree

vii° = diminished; 7th degree

7th arpeggios

6

C^{Δ7} Dm⁷ Em⁷ F^{Δ7} G⁷ Am⁷ B^{ø7} C^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{ø7} I⁷

7th chords

7

C^{Δ7} Dm⁷ Em⁷ F^{Δ7} G⁷ Am⁷ B^{ø7} C^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{ø7} I⁷

Major7th minor7th minor7th Major7th Dominant7th minor7th half diminished7th Major7th

d. A **7th (seventh) chord** is a harmony containing four (4) notes.

1. **7th chords** are comprised of any three adjacent **3rds**, and occur naturally within the **major scale**.

Example: C, E, G, and B are a **7th chord [C-E-G-B]**

2. **7th chords** differ in **quality** based on the types of **3rds** they contain.

3. **7th chords** have distinct **chord symbols** used to indicate **chord quality**.

3.1 While there is generally a **common practice** in the use of **7th chord symbols**, there is a certain amount of variation in **chord symbology** from one publication to the next.

Example: Dm7 (D minor 7th) is a **chord symbol**.

4. There are five basic types of **7th chords**:

4.1 **Major 7th [M3+m3+M3]**

4.2 **minor 7th [m3+M3+m3]**

4.3 **Dominant 7th [M3+m3+m3]**

4.4 **half-diminished 7th [m3+m3+M3]***

4.5 **(fully) diminished 7th [m3+m3+m3]****

*The **half-diminished 7th chord** is also known as **Minor 7th, flat 5 [m7(b5)]**.

The **(fully) diminished 7th chord is derived from the **Harmonic minor scale**, and does not occur in the Major scale.

5. **Roman numerals** are used to indicate the **quality** of a **7th chord**, and the **scale degree** on which the **7th chord** is based.

I⁷ = Major 7th; 1st degree

ii⁷ = minor 7th; 2nd degree

iii⁷ = minor 7th; 3rd degree

IV⁷ = Major 7th; 4th degree

V⁷ = Dominant 7th; 5th degree

vi⁷ = minor 7th; 6th degree

vii^{ø7} = half-diminished 7th; 7th degree

8 Melodic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

9 Harmonic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

Melodic triads (arpeggios)

10 C Dm Em F G Am B° C

I ii iii IV V vi vii° I

Harmonic triads (chords)

11 C Dm Em F G Am B° C

I ii iii IV V vi vii° I

Major minor minor Major Major minor diminished Major

7th arpeggios

12 C^{Δ7} Dm⁷ Em⁷ F^{Δ7} G⁷ Am⁷ B^{ø7} C^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{ø7} I⁷

7th chords

13 C^{Δ7} Dm⁷ Em⁷ F^{Δ7} G⁷ Am⁷ B^{ø7} C^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{ø7} I⁷

Major7th minor7th minor7th Major7th Dominant7th minor7th half diminished7th Major7th

D^b major

14 Melodic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

15 Harmonic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

Melodic triads (arpeggios)

D^b E^bm Fm G^b A^b B^bm C^o D^b

I ii iii IV V vi vii^o I

Harmonic triads (chords)

D^b E^bm Fm G^b A^b B^bm C^o D^b

I ii iii IV V vi vii^o I

Major minor minor Major Major minor diminished Major

7th arpeggios

D^bΔ⁷ E^bm⁷ Fm⁷ G^bΔ⁷ A^b7 B^bm⁷ C^ø7 D^bΔ⁷

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{o7} I⁷

7th chords

D^bΔ⁷ E^bm⁷ Fm⁷ G^bΔ⁷ A^b7 B^bm⁷ C^ø7 D^bΔ⁷

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{o7} I⁷

Major7th minor7th minor7th Major7th Dominant7th minor7th half diminished7th Major7th

D major

20 Melodic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

21 Harmonic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

Melodic triads (arpeggios)

22 D Em F#m G A Bm C#° D

I ii iii IV V vi vii° I

Harmonic triads (chords)

23 D Em F#m G A Bm C#° D

I ii iii IV V vi vii° I
Major minor minor Major Major minor diminished Major

7th arpeggios

24 D^{Δ7} Em⁷ F#m⁷ G^{Δ7} A⁷ Bm⁷ C#^{°7} D^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{°7} I⁷

7th chords

25 D^{Δ7} Em⁷ F#m⁷ G^{Δ7} A⁷ Bm⁷ C#^{°7} D^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{°7} I⁷
Major7th minor7th minor7th Major7th Dominant7th minor7th half diminished7th Major7th

E^b major

26 Melodic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

27 Harmonic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

Melodic triads (arpeggios)

E^b F^m G^m A^b B^b C^m D[°] E^b

I ii iii IV V vi vii[°] I

Harmonic triads (chords)

E^b F^m G^m A^b B^b C^m D[°] E^b

I ii iii IV V vi vii[°] I

Major minor minor Major Major minor diminished Major

7th arpeggios

E^bΔ⁷ F^m7 G^m7 A^bΔ⁷ B^b7 C^m7 D[°]7 E^bΔ⁷

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{°7} I⁷

7th chords

E^bΔ⁷ F^m7 G^m7 A^bΔ⁷ B^b7 C^m7 D[°]7 E^bΔ⁷

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{°7} I⁷

Major7th minor7th minor7th Major7th Dominant7th minor7th half diminished7th Major7th

E major

32 Melodic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

33 Harmonic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

Melodic triads (arpeggios)

34 E F#m G#m A B C#m D#° E

I ii iii IV V vi vii° I

Harmonic triads (chords)

35 E F#m G#m A B C#m D#° E

I ii iii IV V vi vii° I

Major minor minor Major Major minor diminished Major

7th arpeggios

36 E^{Δ7} F#m⁷ G#m⁷ A^{Δ7} B⁷ C#m⁷ D#^{ø7} E^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{ø7} I⁷

7th chords

37 E^{Δ7} F#m⁷ G#m⁷ A^{Δ7} B⁷ C#m⁷ D#^{ø7} E^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{ø7} I⁷

Major7th minor7th minor7th Major7th Dominant7th minor7th half diminished7th Major7th

38 Melodic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

39 Harmonic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

Melodic triads (arpeggios)

F Gm Am Bb C Dm E° F

I ii iii IV V vi vii° I

Harmonic triads (chords)

F Gm Am Bb C Dm E° F

I ii iii IV V vi vii° I

Major minor minor Major Major minor diminished Major

7th arpeggios

F^{Δ7} Gm⁷ Am⁷ Bb^{Δ7} C⁷ Dm⁷ E^{ø7} F^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{ø7} I⁷

7th chords

F^{Δ7} Gm⁷ Am⁷ Bb^{Δ7} C⁷ Dm⁷ E^{ø7} F^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{ø7} I⁷

Major7th minor7th minor7th Major7th Dominant7th minor7th half diminished7th Major7th

44 Melodic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

45 Harmonic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

Melodic triads (arpeggios)

46 G \flat Abm Bbm C \flat D \flat Ebm F $^{\circ}$ G \flat

I ii iii IV V vi vii $^{\circ}$ I

Harmonic triads (chords)

47 G \flat Abm Bbm C \flat D \flat Ebm F $^{\circ}$ G \flat

I ii iii IV V vi vii $^{\circ}$ I

Major minor minor Major Major minor diminished Major

7th arpeggios

48 G \flat Δ ⁷ Abm⁷ Bbm⁷ C \flat Δ ⁷ D \flat ⁷ Ebm⁷ F \emptyset ⁷ G \flat Δ ⁷

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii⁷ I⁷

7th chords

49 G \flat Δ ⁷ Abm⁷ Bbm⁷ C \flat Δ ⁷ D \flat ⁷ Ebm⁷ F \emptyset ⁷ G \flat Δ ⁷

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii⁷ I⁷

Major7th minor7th minor7th Major7th Dominant7th minor7th half diminished7th Major7th

50 Melodic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

51 Harmonic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

Melodic triads (arpeggios)

G Am Bm C D Em F#° G

I ii iii IV V vi vii° I

Harmonic triads (chords)

G Am Bm C D Em F#° G

I ii iii IV V vi vii° I

Major minor minor Major Major minor diminished Major

7th arpeggios

GΔ7 Am7 Bm7 CΔ7 D7 Em7 F#ø7 GΔ7

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{ø7} I⁷

7th chords

GΔ7 Am7 Bm7 CΔ7 D7 Em7 F#ø7 GΔ7

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{ø7} I⁷

Major7th minor7th minor7th Major7th Dominant7th minor7th half diminished7th Major7th

56 Melodic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

57 Harmonic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

Melodic triads (arpeggios)

58 Ab Bbm Cm Db Eb Fm G^o Ab

I ii iii IV V vi vii^o I

Harmonic triads (chords)

59 Ab Bbm Cm Db Eb Fm G^o Ab

I ii iii IV V vi vii^o I

Major minor minor Major Major minor diminished Major

7th arpeggios

60 Ab^{Δ7} Bbm⁷ Cm⁷ Db^{Δ7} Eb⁷ Fm⁷ G^{ø7} Ab^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{ø7} I⁷

7th chords

61 Ab^{Δ7} Bbm⁷ Cm⁷ Db^{Δ7} Eb⁷ Fm⁷ G^{ø7} Ab^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{ø7} I⁷

Major7th minor7th minor7th Major7th Dominant7th minor7th half diminished7th Major7th

A major

Melodic 3rds

62

M3 m3 m3 M3 M3 m3 m3 M3

Harmonic 3rds

63

M3 m3 m3 M3 M3 m3 m3 M3

Melodic triads (arpeggios)

64

A Bm C#m D E F#m G#° A

I ii iii IV V vi vii° I

Harmonic triads (chords)

65

A Bm C#m D E F#m G#° A

I ii iii IV V vi vii° I

Major minor minor Major Major minor diminished Major

7th arpeggios

66

A^{Δ7} Bm⁷ C#m⁷ D^{Δ7} E⁷ F#m⁷ G#^{°7} A^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{°7} I⁷

7th chords

67

A^{Δ7} Bm⁷ C#m⁷ D^{Δ7} E⁷ F#m⁷ G#^{°7} A^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{°7} I⁷

Major7th minor7th minor7th Major7th Dominant7th minor7th half diminished7th Major7th

68 Melodic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

69 Harmonic 3rds

M3 m3 m3 M3 M3 m3 m3 M3

Melodic triads (arpeggios)

B \flat Cm Dm E \flat F Gm A $^{\circ}$ B \flat

I ii iii IV V vi vii $^{\circ}$ I

Harmonic triads (chords)

B \flat Cm Dm E \flat F Gm A $^{\circ}$ B \flat

I ii iii IV V vi vii $^{\circ}$ I

Major minor minor Major Major minor diminished Major

7th arpeggios

B \flat Δ ⁷ Cm⁷ Dm⁷ E \flat Δ ⁷ F⁷ Gm⁷ A \emptyset ⁷ B \flat Δ ⁷

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii⁷ I⁷

7th chords

B \flat Δ ⁷ Cm⁷ Dm⁷ E \flat Δ ⁷ F⁷ Gm⁷ A \emptyset ⁷ B \flat Δ ⁷

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii⁷ I⁷

Major7th minor7th minor7th Major7th Dominant7th minor7th half diminished7th Major7th

B major

Melodic 3rds

74

M3 m3 m3 M3 M3 m3 m3 M3

Harmonic 3rds

75

M3 m3 m3 M3 M3 m3 m3 M3

Melodic triads (arpeggios)

76

B C#m D#m E F# G#m A#° B

I ii iii IV V vi vii° I

Harmonic triads (chords)

77

B C#m D#m E F# G#m A#° B

I ii iii IV V vi vii° I

Major minor minor Major Major minor diminished Major

7th arpeggios

78

B^{Δ7} C#m⁷ D#m⁷ E^{Δ7} F#⁷ G#m⁷ A#^{ø7} B^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{ø7} I⁷

7th chords

79

B^{Δ7} C#m⁷ D#m⁷ E^{Δ7} F#⁷ G#m⁷ A#^{ø7} B^{Δ7}

I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷ vii^{ø7} I⁷

Major7th minor7th minor7th Major7th Dominant7th minor7th half diminished7th Major7th

Chapter 3- Major Scale Modes (I. Relative)

Modes are extremely useful tools for improvisation, particularly in jazz.

- a. A **mode** can be defined as 1. a **scale-within-a-scale**, or 2. a **permutation** (re-ordering) of a scale that begins and ends on a note other than the **root** of the **parent scale** or **key**.
- b. Modes can be derived by **rotating** through the notes of any given scale.
- c. **Modes** can also be defined as **secondary scales**, derived from a **parent scale**.
 1. A **parent scale** is the scale from which a set of modes is derived.

d. The most important modes are the **modes of the Major scale**.

1. The **major scale** is a **diatonic** scale, as are each of its **modes**.

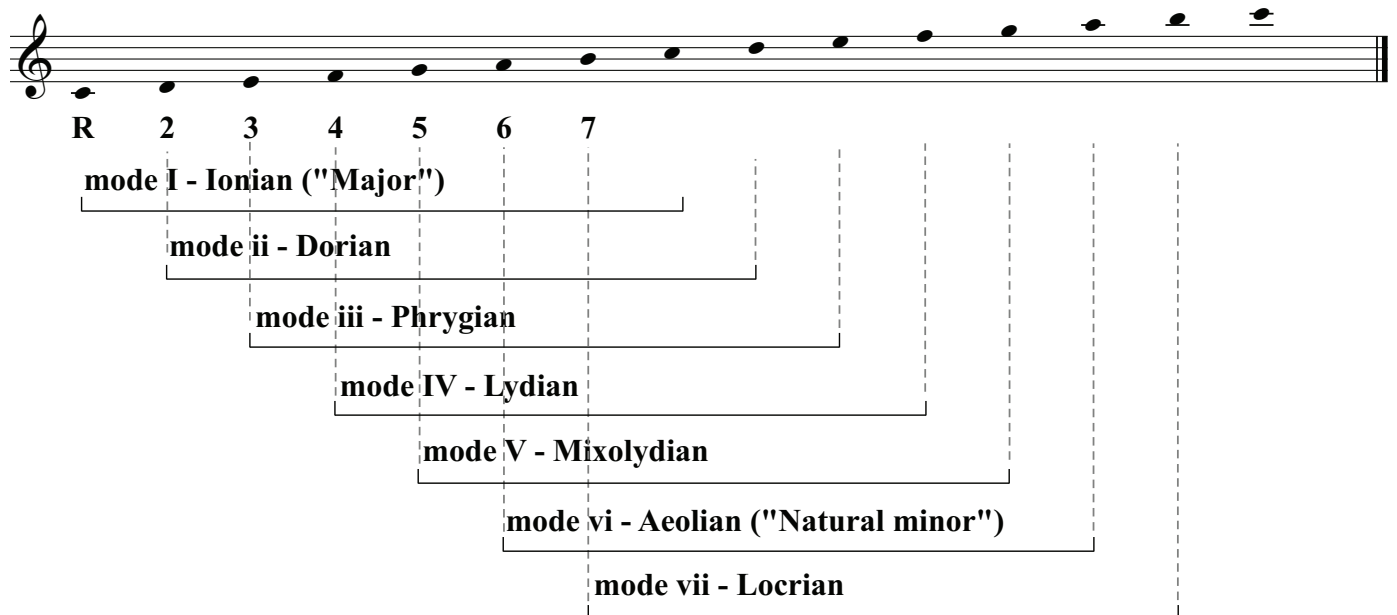
2. **Major scale modes** can be grouped together in two separate, but equally important ways:

2.1 **Relative modes**- the group of modes derived from a single scale in a single key.

2.2 **Parallel modes**- the group of modes derived from different scales in different keys, but sharing a common **root**.

e. In this chapter, we will be looking at **relative modes**.

C major scale- parent scale; mode I
(Also known as "C Ionian mode;" mother of all Western scales)



1. All of the **modes** shown in the diagram above are derived from a single scale, the **C major scale**. Each of the **12 major scales** has its own set of **relative modes**.

1.1 **Ionian mode** is the 1st mode of any major key, starting and ending on the root of the key.

Ionian mode is also known as the **Major scale**.

1.2 **Dorian mode** is the 2nd mode of any Major/Ionian scale.

1.3 **Phrygian mode** is the 3rd mode of any Major/Ionian scale.

1.4 **Lydian mode** is the 4th mode of any Major/Ionian scale.

1.5 **Mixolydian mode** is the 5th mode of any Major/Ionian scale.

1.6 **Aeolian mode** is the 6th mode of any Major/Ionian scale.

1.7 **Locrian mode** is the 7th mode of any Major/Ionian scale.

2. Every mode in the previous diagram can be said to be **relative** to the **C major scale**.
3. Every mode in the previous diagram has a different **root**, based on its beginning and ending notes within the **C major scale**.

3.1 A **root** is the defining note of a scale, mode, or key; the letter that gives a scale, mode, or key its name.

3.2 **Ionian, Dorian, Phrygian, Lydian, Mixolydian, Aeolian, and Locrian** are traditional historical names for the modes of the major scale, derived from Greek churches.

4. Each **relative mode** derived from a **parent scale** corresponds to a specific **7th chord** also derived from the parent scale. The corresponding **chord** and **mode** are based on the same **scale degree**.

4.1 Notes from the **mode** may be used to improvise melodies over the corresponding **chord**.

4.2 Viewing **chords** and **modes** as corresponding pairs is known as the **chord-scale** approach.

2 C^{Δ7} C Ionian scale; mode I

I⁷

Per Chapter 2: b.2.3 The notes of any **chord** or **arpeggio** are referred to as **chord tones**.

5. In the mode diagram above (and all following pages):

5.1 **Black noteheads** represent **chord tones**.

5.2 **White noteheads** represent **passing tones**.

5.1.1 **Modes** contain **chord tones** associated with their corresponding **chords**.

5.2.1 A **passing tone** is any scale note that is not a **chord tone**.

5.3 **Chord tones** and **passing tones** within a scale are often referred to as **inside notes**.

6. An **outside note** is any note that is not a part of the **chord** or its corresponding **mode**.

3 C^{Δ7} C Ionian scale; mode I

I⁷

Examples of **outside notes**

4 C^{Δ7} C Ionian scale; mode I

I⁷

5 Dm⁷ D Dorian scale; mode ii

ii⁷

6 Em⁷ E Phrygian scale; mode iii

iii⁷

7 F^{Δ7} F Lydian scale; mode IV

IV⁷

8 G⁷ G Mixolydian scale; mode V

V⁷

9 Am⁷ A Aeolian scale; mode vi ("Natural minor")

vi⁷

10 B^{ø7} B Locrian scale; mode vii

vii^{o7}

24 **D^bmajor**

11 **D^bΔ⁷ D^b Ionian scale; mode I**



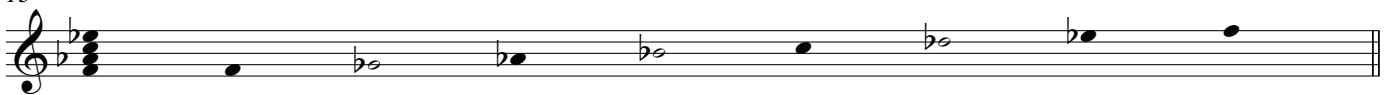
I⁷

12 **E^bm⁷ E^b Dorian scale; mode ii**



ii⁷

13 **Fm⁷ F Phrygian scale; mode iii**



iii⁷

14 **G^bΔ⁷ G^b Lydian scale; mode IV**



IV⁷

15 **A^bΔ⁷ A^b Mixolydian scale; mode V**



V⁷

16 **B^bm⁷ B^b Aeolian scale; mode vi ("Natural minor")**



vi⁷

17 **C^ø7 C Locrian scale; mode vii**



vii^{ø7}

18 D^{Δ7} D Ionian scale; mode I

I⁷

19 E^{m7} E Dorian scale; mode ii

ii⁷

20 F#^{m7} F# Phrygian scale; mode iii

iii⁷

21 G^{Δ7} G Lydian scale; mode IV

IV⁷

22 A⁷ A Mixolydian scale; mode V

V⁷

23 B^{m7} B Aeolian scale; mode vi ("Natural minor")

vi⁷

24 C#^{ø7} C# Locrian scale; mode vii

vii^{ø7}

26 **E^bmajor**

25 **E^b Δ 7** **E^b Ionian scale; mode I**

I⁷

26 **Fm⁷** **F Dorian scale; mode ii**

ii⁷

27 **Gm⁷** **G Phrygian scale; mode iii**

iii⁷

28 **A^b Δ 7** **A^b Lydian scale; mode IV**

IV⁷

29 **B^b7** **B^b Mixolydian scale; mode V**

V⁷

30 **Cm⁷** **C Aeolian scale; mode vi ("Natural minor")**

vi⁷

31 **D^ø7** **D Locrian scale; mode vii**

vii^{ø7}

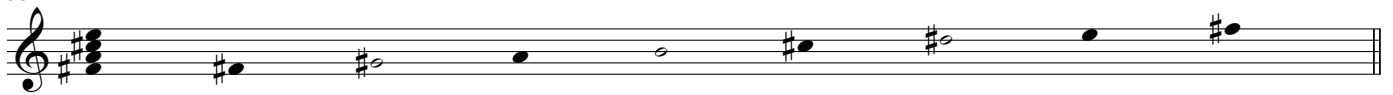
E major

32 E^{Δ7} E Ionian scale; mode I



I⁷

33 F#m⁷ F# Dorian scale; mode ii



ii⁷

34 G#m⁷ G# Phrygian scale; mode iii



iii⁷

35 A^{Δ7} A Lydian scale; mode IV



IV⁷

36 B⁷ B Mixolydian scale; mode V



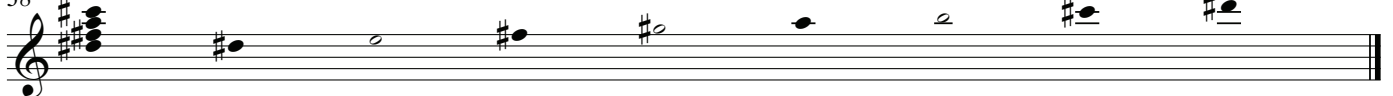
V⁷

37 C#m⁷ C# Aeolian scale; mode vi ("Natural minor")



vi⁷


38 D#^{∅7} D# Locrian scale; mode vii



vii^{∅7}

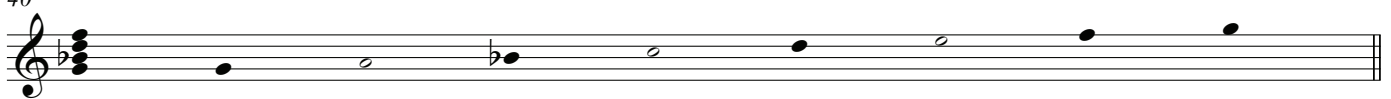
28 F major

39 F Δ 7 F Ionian scale; mode I




I⁷

40 Gm7 G Dorian scale; mode ii



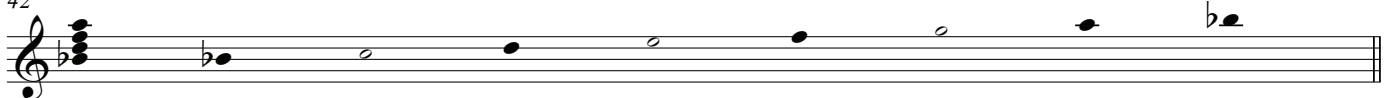
ii⁷

41 Am7 A Phrygian scale; mode iii




iii⁷

42 Bb Δ 7 Bb Lydian scale; mode IV



IV⁷

43 C7 C Mixolydian scale; mode V



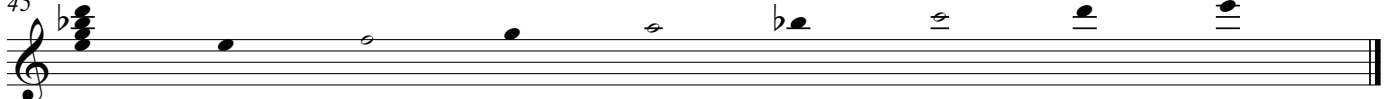
V⁷

44 Dm7 D Aeolian scale; mode vi ("Natural minor")



vi⁷

45 E \emptyset 7 E Locrian scale; mode vii



vii^{o7}

46 G \flat Δ 7 G \flat Ionian scale; mode I

I⁷

47 A \flat m⁷ A \flat Dorian scale; mode ii

ii⁷

48 B \flat m⁷ B \flat Phrygian scale; mode iii

iii⁷

49 C \flat Δ 7 C \flat Lydian scale; mode IV

IV⁷

50 D \flat 7 D \flat Mixolydian scale; mode V

V⁷


51 E \flat m⁷ E \flat Aeolian scale; mode vi ("Natural minor")

vi⁷

52 F \emptyset 7 F Locrian scale; mode vii

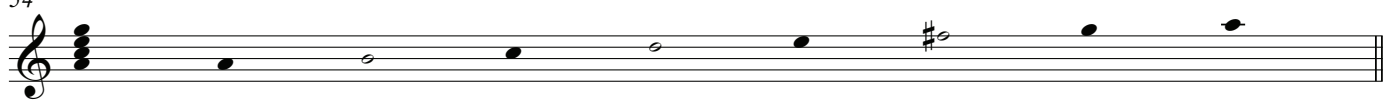
vii^{o7}

53 G^{Δ7} G Ionian scale; mode I



I⁷

54 Am⁷ A Dorian scale; mode ii



ii⁷

55 Bm⁷ B Phrygian scale; mode iii



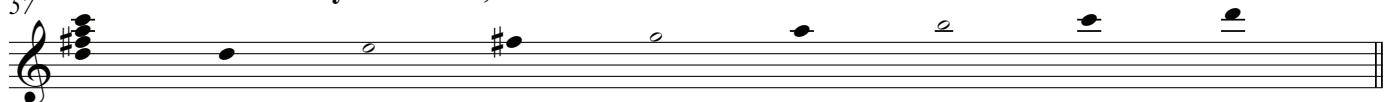
iii⁷

56 C^{Δ7} C Lydian scale; mode IV



IV⁷

57 D⁷ D Mixolydian scale; mode V



V⁷

58 Em⁷ E Aeolian scale; mode vi ("Natural minor")



vi⁷

59 F#^{ø7} F# Locrian scale; mode vii



vii^{o7}

60 A \flat Δ 7 A \flat Ionian scale; mode I



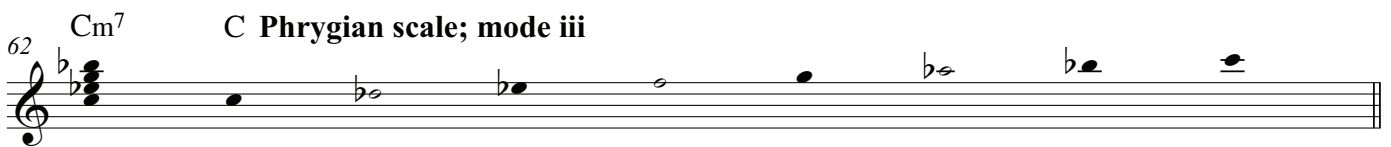
I⁷

61 B \flat m7 B \flat Dorian scale; mode ii



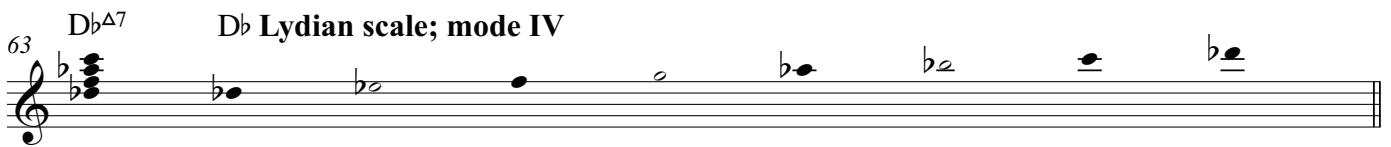
ii⁷

62 Cm7 C Phrygian scale; mode iii



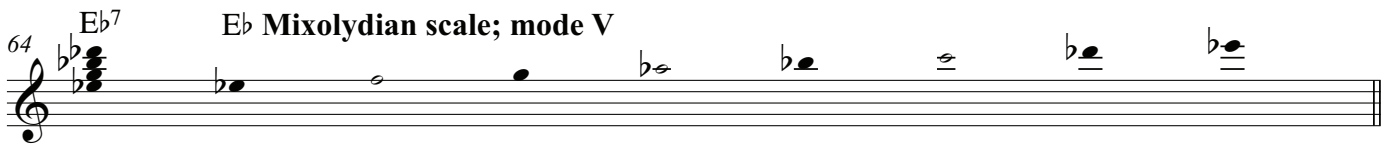
iii⁷

63 D \flat Δ 7 D \flat Lydian scale; mode IV



IV⁷

64 E \flat 7 E \flat Mixolydian scale; mode V



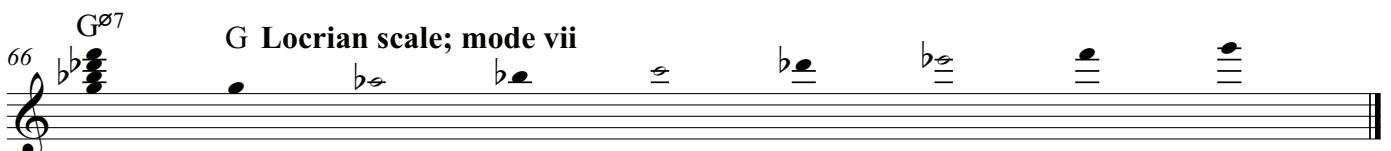
V⁷

65 Fm7 F Aeolian scale; mode vi ("Natural minor")



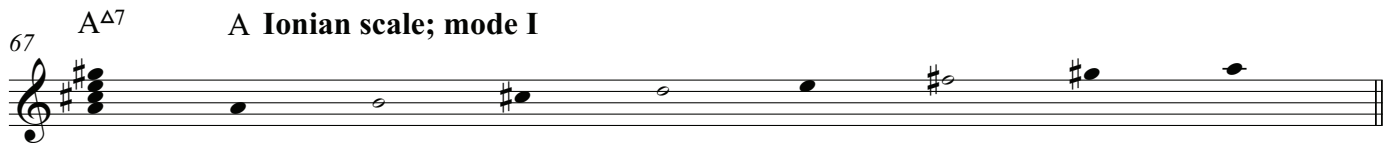
vi⁷

66 G \emptyset 7 G Locrian scale; mode vii

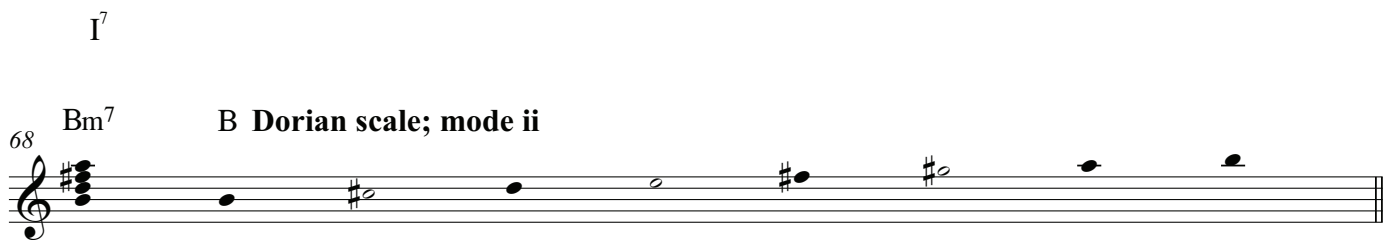


vii^{o7}

67 $A^{\Delta 7}$ A Ionian scale; mode I



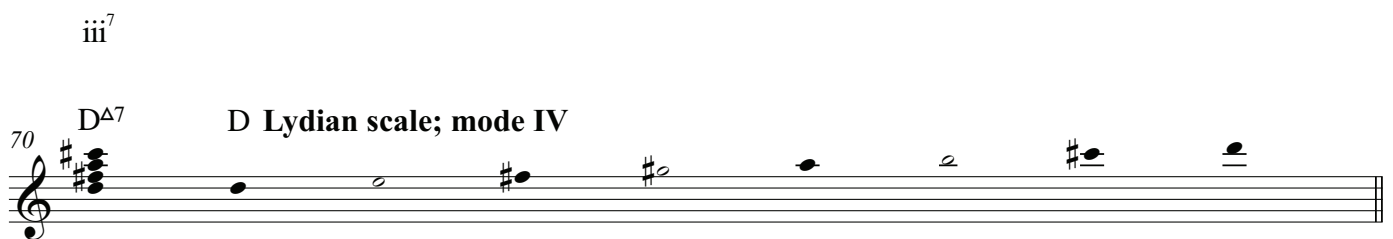
68 Bm^7 B Dorian scale; mode ii



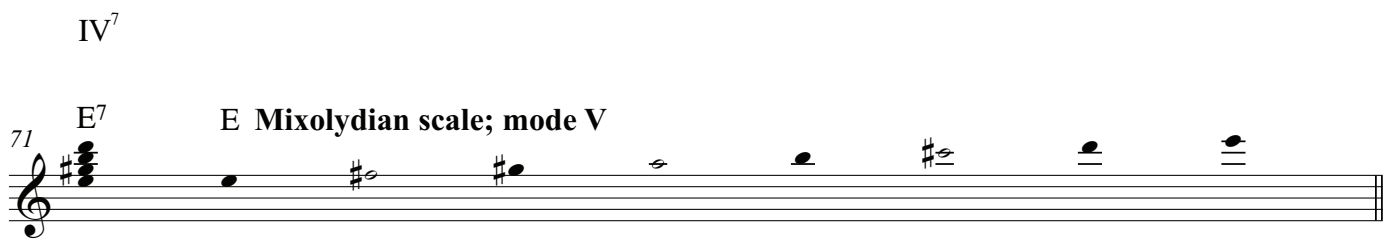
69 $C\#m^7$ C# Phrygian scale; mode iii



70 $D^{\Delta 7}$ D Lydian scale; mode IV



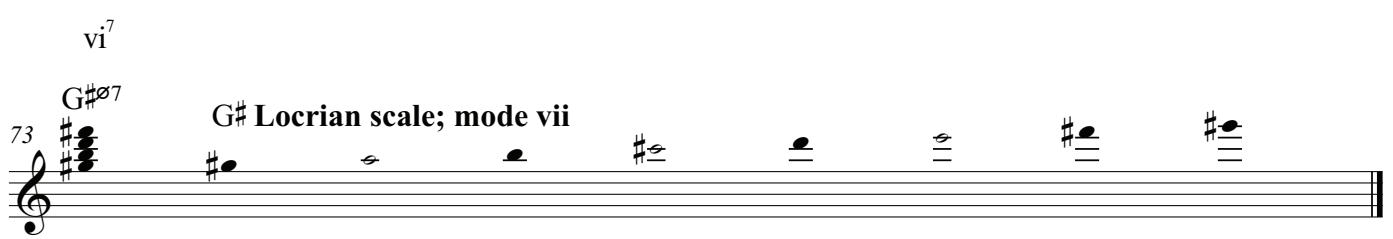
71 E^7 E Mixolydian scale; mode V



72 $F\#m^7$ F# Aeolian scale; mode vi ("Natural minor")



73 $G\#^{\circ 7}$ G# Locrian scale; mode vii



$vii^{\circ 7}$

74 B \flat Δ 7 B \flat Ionian scale; mode I

I⁷

75 Cm⁷ C Dorian scale; mode ii

ii⁷

76 Dm⁷ D Phrygian scale; mode iii

iii⁷

77 E \flat Δ 7 E \flat Lydian scale; mode IV

IV⁷

78 F⁷ F Mixolydian scale; mode V

V⁷

79 Gm⁷ G Aeolian scale; mode vi ("Natural minor")

vi⁷

80 A \emptyset 7 A Locrian scale; mode vii

vii^{o7}

34 **B major**

81 **B^{Δ7} B Ionian scale; mode I**

Musical notation for the B Ionian scale, mode I. The staff shows a treble clef with a key signature of two sharps (F# and C#). The scale is written as a sequence of notes: B, C#, D, E, F#, G#, A, B. The notes are grouped into a chord (B major triad with a seventh) and then written as a sequence of eighth notes. The chord symbol **I⁷** is written below the staff.

82 **C#m⁷ C# Dorian scale; mode ii**

Musical notation for the C# Dorian scale, mode ii. The staff shows a treble clef with a key signature of three sharps (F#, C#, G#). The scale is written as a sequence of notes: C#, D, E, F#, G#, A, B, C#. The notes are grouped into a chord (C# minor triad with a seventh) and then written as a sequence of eighth notes. The chord symbol **ii⁷** is written below the staff.

83 **D#m⁷ D# Phrygian scale; mode iii**

Musical notation for the D# Phrygian scale, mode iii. The staff shows a treble clef with a key signature of three sharps (F#, C#, G#). The scale is written as a sequence of notes: D#, E, F#, G#, A, B, C#, D#. The notes are grouped into a chord (D# minor triad with a seventh) and then written as a sequence of eighth notes. The chord symbol **iii⁷** is written below the staff.

84 **E^{Δ7} E Lydian scale; mode IV**

Musical notation for the E Lydian scale, mode IV. The staff shows a treble clef with a key signature of three sharps (F#, C#, G#). The scale is written as a sequence of notes: E, F#, G#, A, B, C#, D, E. The notes are grouped into a chord (E major triad with a seventh) and then written as a sequence of eighth notes. The chord symbol **IV⁷** is written below the staff.

85 **F#m⁷ F# Mixolydian scale; mode V**

Musical notation for the F# Mixolydian scale, mode V. The staff shows a treble clef with a key signature of three sharps (F#, C#, G#). The scale is written as a sequence of notes: F#, G#, A, B, C#, D, E, F#. The notes are grouped into a chord (F# minor triad with a seventh) and then written as a sequence of eighth notes. The chord symbol **V⁷** is written below the staff.

86 **G#m⁷ G# Aeolian scale; mode vi ("Natural minor")**

Musical notation for the G# Aeolian scale, mode vi. The staff shows a treble clef with a key signature of three sharps (F#, C#, G#). The scale is written as a sequence of notes: G#, A, B, C#, D, E, F#, G#. The notes are grouped into a chord (G# minor triad with a seventh) and then written as a sequence of eighth notes. The chord symbol **vi⁷** is written below the staff.

87 **A#m^{ø7} A# Locrian scale; mode vii**

Musical notation for the A# Locrian scale, mode vii. The staff shows a treble clef with a key signature of three sharps (F#, C#, G#). The scale is written as a sequence of notes: A#, B, C#, D, E, F#, G#, A#. The notes are grouped into a chord (A# minor triad with a seventh) and then written as a sequence of eighth notes. The chord symbol **vii^{ø7}** is written below the staff.

Chapter 4- Major Scale Modes

(II. Parallel)


Per Chapter 3: 2. Major scale modes can be grouped together in two separate, but equally important ways:

1. **Relative modes**- the group of modes derived from a single scale in a single key.
2. **Parallel modes**- the group of modes derived from different scales in different keys, but sharing a common **root**.

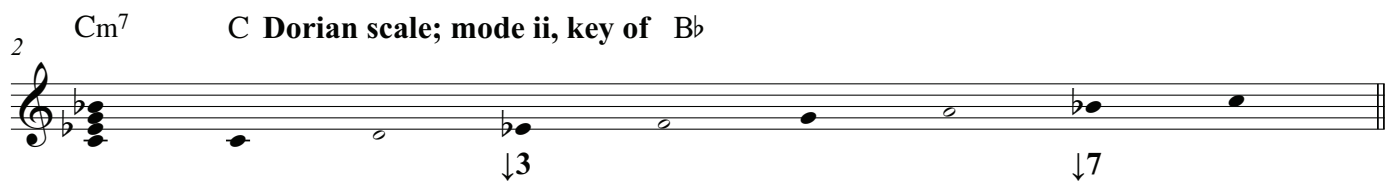
In this chapter, we will be looking at **parallel modes**.

a. Consider the scales **C Ionian** and **C Dorian**:

C^{Δ7} C Ionian scale; mode I



2 Cm⁷ C Dorian scale; mode ii, key of B^b



The image shows two musical staves. The first staff is for the C Ionian scale, labeled 'C Ionian scale; mode I' with a C^{Δ7} chord symbol. It shows a treble clef, a C major triad, and a scale of whole notes: C, D, E, F, G, A, B, C. The second staff is for the C Dorian scale, labeled 'C Dorian scale; mode ii, key of B^b' with a Cm⁷ chord symbol. It shows a treble clef, a C minor triad, and a scale of whole notes: C, D, E^b, F, G, A, B^b, C. Below the notes, there are downward arrows with '3' and '7' indicating lowered notes.

1. Both **modes** shown in the diagram above are derived from different **major scales**, but share a common **root**, in this case the root **C**.

2. **C Ionian mode** and **C Dorian mode** can be said to be **parallel scales**.

3. The note **C** is known as the **pitch axis** for any mode or scale with the **root C**.

3.1 **Pitch axis theory** is a comparative theory of parallel scales, modes, and arpeggios based on the **major scale** as a "default" scale.

4. For the purposes of comparison, the following notation will be used regarding accidentals:

4.1 When a **natural** note is made **flat** (b), it is said to be **lowered** (\downarrow).

4.2 When a **sharp** note is made **natural** (\natural), it is said to be **lowered** (\downarrow).

4.3 When a **natural** note is made **sharp** (\sharp), it is said to be **raised** (\uparrow).

4.4 When a **flat** note is made **natural** (\natural), it is said to be **raised** (\uparrow).

5. Using **Ionian mode (the major scale)** as our "default" scale, we can draw a qualitative comparison between **Ionian** and **Dorian mode**.

5.1 **C Ionian** contains the notes [E] and [B].

5.2 **C Dorian** contains the notes [E b] and [B b].

5.3 **C Dorian mode** is equivalent to **C Ionian mode** with a

lowered (b)3, and **lowered** (b)7.

6. This qualitative comparison is known as **analysis**, and can be used to derive **scale formulas**.

6.1 A **scale formula** is a description of a **mode** comparative to its **parallel major scale**.

6.2 The **scale formula** for **Dorian mode** is [\downarrow 3, \downarrow 7].

36 $C^{\Delta 7}$ C Ionian scale; mode I

4 Cm^7 C Phrygian scale; mode iii, key of A^b

b. C Ionian mode and C Phrygian mode are parallel scales.

1.1 C Ionian contains the notes [D],[E],[A] and [B].

1.2 C Phrygian contains the notes [Db],[Eb],[Ab] and [Bb].

2. C Phrygian mode is equivalent to C Ionian mode with a

lowered (b)2, lowered (b)3,

lowered (b)6, and lowered (b)7.

3 The scale formula for Phrygian mode is [$\downarrow 2, \downarrow 3, \downarrow 6, \downarrow 7$].

5 $C^{\Delta 7}$ C Ionian scale; mode I

6 $C^{\Delta 7}$ C Lydian scale; mode IV, key of G

c. C Ionian mode and C Lydian mode are parallel scales.

1.1 C Ionian contains the note [F].

1.2 C Lydian contains the note [F#].

2. C Lydian mode is equivalent to C Ionian mode with a

raised (#)4.

3. The scale formula for Lydian mode is [$\uparrow 4$].

7 $C^{\Delta 7}$ C Ionian scale; mode I

8 C^7 C Mixolydian scale; mode V, key of F

d. C Ionian mode and C Mixolydian mode are parallel scales.

1.1 C Ionian contains the note [B].

1.2 C Mixolydian contains the note [Bb].

2. C Mixolydian mode is equivalent to C Ionian mode with a lowered (b)7.

3. The scale formula for Mixolydian mode is [$\downarrow 7$].

9 $C^{\Delta 7}$ C Ionian scale; mode I

10 Cm^7 C Aeolian scale; mode vi ("Natural minor"), key of Eb

e. C Ionian mode and C Aeolian mode are parallel scales.

1.1 C Ionian contains the notes [E],[A] and [B].

1.2 C Aeolian contains the notes [Eb],[Ab] and [Bb].

2. C Aeolian mode is equivalent to C Ionian mode with a lowered (b)3, lowered (b)6, and lowered (b)7.

3. The scale formula for Aeolian mode is [$\downarrow 3, \downarrow 6, \downarrow 7$].

38

11 C^{Δ7} C Ionian scale; mode I

12 C^{∅7} C Locrian scale; mode vii, key of D^b

f. C Ionian mode and C Locrian mode are parallel scales.

1.1 C Ionian contains the notes [D],[E],[G],[A] and [B].

1.2 C Locrian contains the notes [D^b],[E^b],[G^b],[A^b] and [B^b].

2. C Locrian mode is equivalent to C Ionian mode with a

lowered (b)2, lowered (b)3,
lowered (b)5, lowered (b)6, and lowered (b)7.

3. The scale formula for Locrian mode is [↓2,↓3,↓5,↓6,↓7].

g. SUMMARY of parallel mode formulas:

1.1 Ionian = [R234567]

1.2 Dorian = [↓3,↓7]

1.3 Phrygian = [↓2,↓3,↓6,↓7]

1.4 Lydian = [↑4]

1.5 Mixolydian = [↓7]

1.6 Aeolian = [↓3,↓6,↓7]

1.7 Locrian = [↓2,↓3,↓5,↓6,↓7]

2. Each parallel mode corresponds to a specific 7th chord, derived from the chord tones contained within the mode.

2.1 The corresponding chord and mode are based on the same root.

Per Chapter 3:

Notes from the mode may be used to improvise melodies over the corresponding chord.

Viewing chords and modes as corresponding pairs is known as the chord-scale approach.

3.1 Accidentals are also known as enharmonic equivalents.

Example: [C[#]] and [D^b] are enharmonic equivalents.

3.2 When studying parallel modes, we often use modes based on enharmonic equivalent roots, depending on what key the mode is derived from.

Examples: [D^b Dorian = C[#] Dorian]; [G^b Aeolian = F[#] Aeolian]

3.3 Enharmonic equivalents are used to reduce the number of accidentals that occur in a scale.

13 C^{Δ7} C Ionian scale; mode I

Musical notation for the C Ionian scale (mode I) in treble clef. The scale is C-D-E-F-G-A-B-C. The starting chord is C^{Δ7}. The notes are quarter notes.

14 Cm⁷ C Dorian scale; mode ii, key of B^b

Musical notation for the C Dorian scale (mode ii) in treble clef. The scale is C-D-E-F-G-A-B^b-C. The starting chord is Cm⁷. The notes are quarter notes. Fingering: 3 on F, 7 on B^b.

15 Cm⁷ C Phrygian scale; mode iii, key of A^b

Musical notation for the C Phrygian scale (mode iii) in treble clef. The scale is C-D^b-E-F-G-A-B-C. The starting chord is Cm⁷. The notes are quarter notes. Fingering: 2 on D^b, 3 on E, 6 on A, 7 on B.

16 C^{Δ7} C Lydian scale; mode IV, key of G

Musical notation for the C Lydian scale (mode IV) in treble clef. The scale is C-D-E-F[#]-G-A-B-C. The starting chord is C^{Δ7}. The notes are quarter notes. Fingering: 4 on F[#].

17 C⁷ C Mixolydian scale; mode V, key of F

Musical notation for the C Mixolydian scale (mode V) in treble clef. The scale is C-D-E-F-G-A-B^b-C. The starting chord is C⁷. The notes are quarter notes. Fingering: 7 on B^b.

18 Cm⁷ C Aeolian scale; mode vi ("Natural minor"), key of E^b

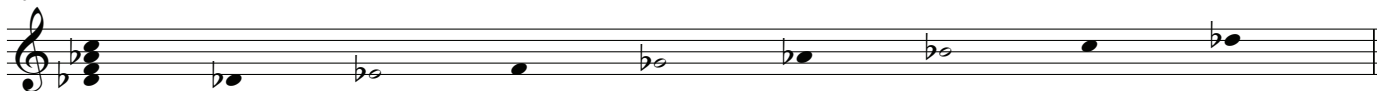
Musical notation for the C Aeolian scale (mode vi) in treble clef. The scale is C-D-E-F-G-A-B-C. The starting chord is Cm⁷. The notes are quarter notes. Fingering: 3 on F, 6 on A, 7 on B.

19 C^{∅7} C Locrian scale; mode vii, key of D^b

Musical notation for the C Locrian scale (mode vii) in treble clef. The scale is C-D^b-E^b-F-G-A-B-C. The starting chord is C^{∅7}. The notes are quarter notes. Fingering: 2 on D^b, 3 on E^b, 5 on G, 6 on A, 7 on B.

40 **D^b root**

20 **D^bΔ⁷ D^b Ionian scale; mode I**



21 **C[#]m⁷ C[#] Dorian scale; mode ii, key of B**



enharmonic equivalent of D^b Dorian

22 **C[#]m⁷ C[#] Phrygian scale; mode iii, key of A**



enharmonic equivalent of D^b Phrygian

23 **D^bΔ⁷ D^b Lydian scale; mode IV, key of A^b**



24 **D^b7 D^b Mixolydian scale; mode V, key of G^b**



25 **C[#]m⁷ C[#] Aeolian scale; mode vi ("Natural minor"), key of E**



enharmonic equivalent of D^b Aeolian

26 **C[#]ø⁷ C[#] Locrian scale; mode vii, key of D**



enharmonic equivalent of D^b Locrian

27 D^{Δ7} D Ionian scale; mode I

28 Dm⁷ D Dorian scale; mode ii, key of C

29 Dm⁷ D Phrygian scale; mode iii, key of Bb

30 D^{Δ7} D Lydian scale; mode IV, key of A

31 D⁷ D Mixolydian scale; mode V, key of G

32 Dm⁷ D Aeolian scale; mode vi ("Natural minor"), key of F

33 D^{ø7} D Locrian scale; mode vii, key of Eb

34 E \flat Δ 7 E \flat Ionian scale; mode I

35 E \flat m7 E \flat Dorian scale; mode ii, key of D \flat

36 D \sharp m7 D \sharp Phrygian scale; mode iii, key of B

enharmonic equivalent of E \flat Phrygian

37 E \flat Δ 7 E \flat Lydian scale; mode IV, key of B \flat


38 E \flat 7 E \flat Mixolydian scale; mode V, key of A \flat

39 E \flat m7 E \flat Aeolian scale; mode vi ("Natural minor"), key of G \flat

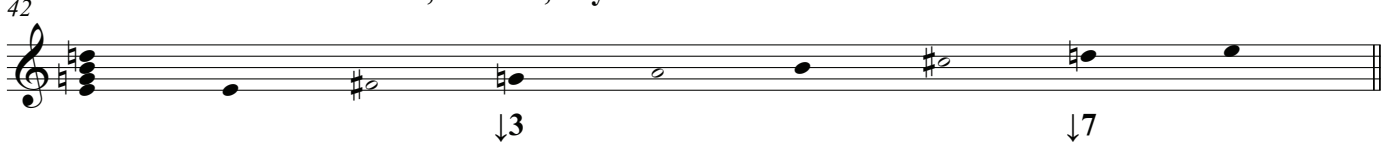
40 D \sharp ø7 D \sharp Locrian scale; mode vii, key of E

enharmonic equivalent of E \flat Locrian

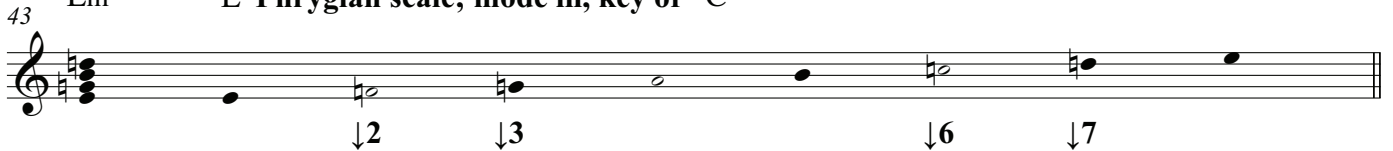
41 E^{Δ7} E Ionian scale; mode I



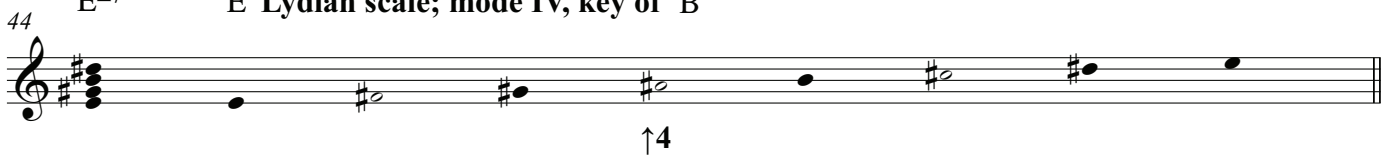
42 Em⁷ E Dorian scale; mode ii, key of D



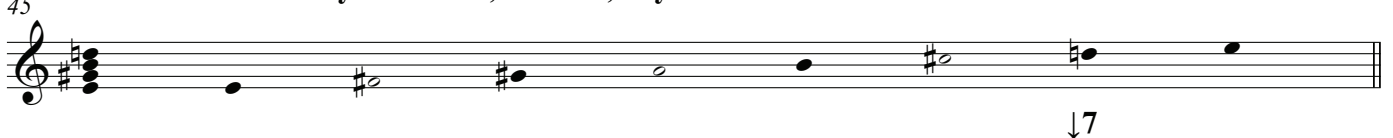
43 Em⁷ E Phrygian scale; mode iii, key of C



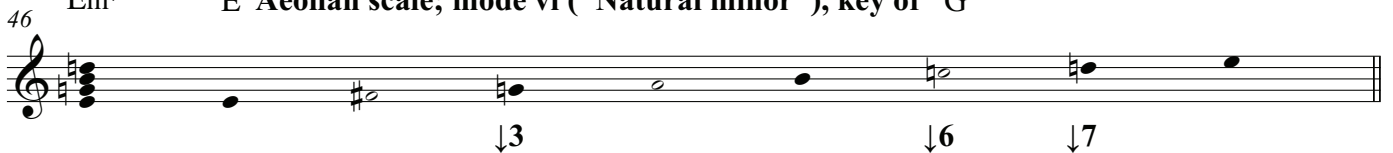
44 E^{Δ7} E Lydian scale; mode IV, key of B



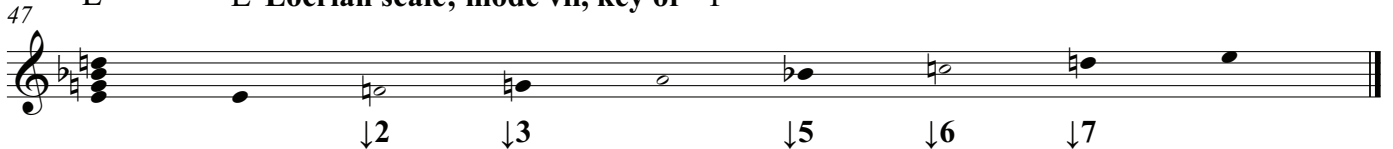
45 E⁷ E Mixolydian scale; mode V, key of A



46 Em⁷ E Aeolian scale; mode vi ("Natural minor"), key of G



47 E^{∅7} E Locrian scale; mode vii, key of F

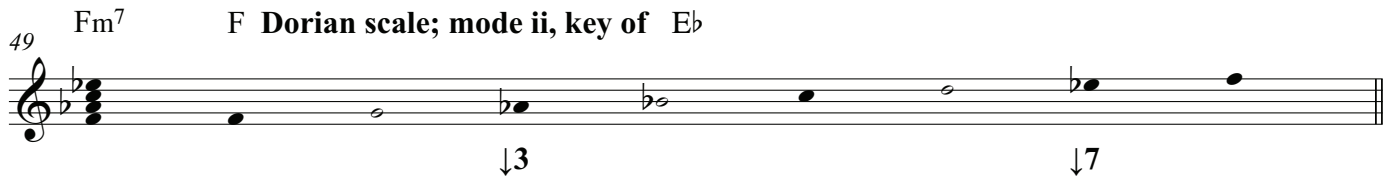


44 F root

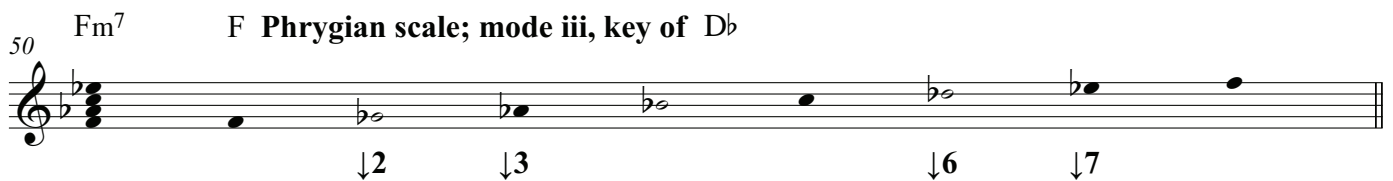
48 F Δ 7 F Ionian scale; mode I



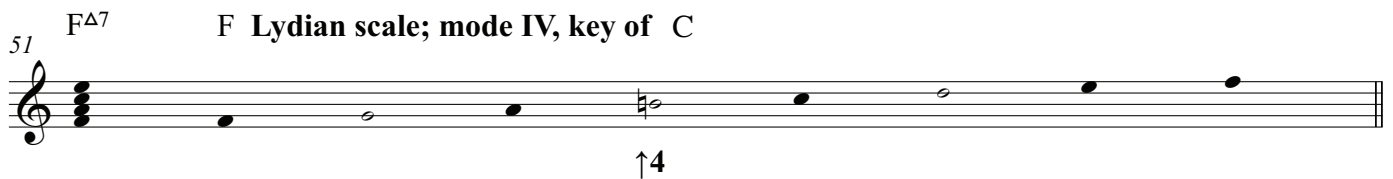
49 Fm7 F Dorian scale; mode ii, key of E \flat



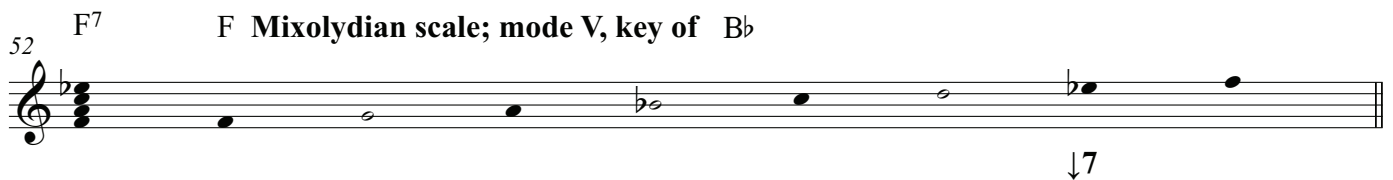
50 Fm7 F Phrygian scale; mode iii, key of D \flat



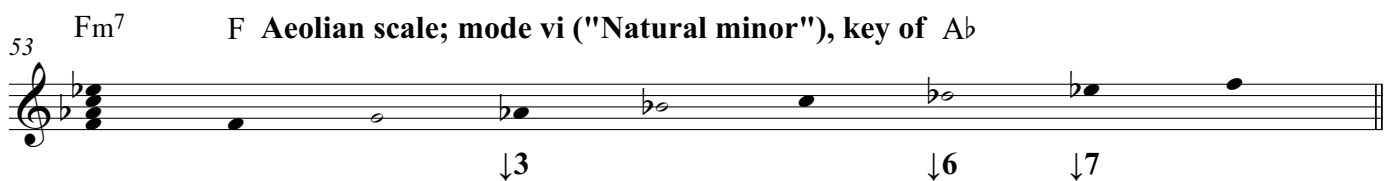
51 F Δ 7 F Lydian scale; mode IV, key of C



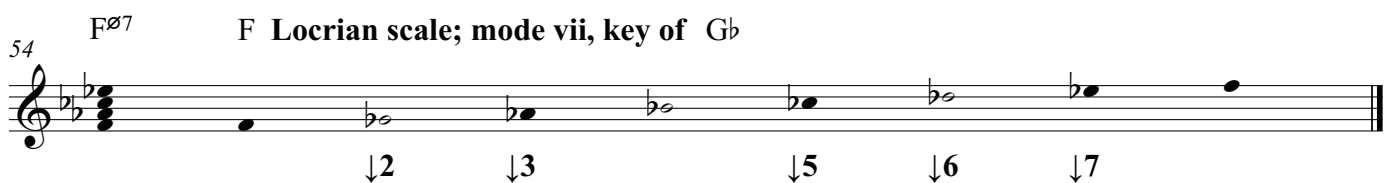
52 F7 F Mixolydian scale; mode V, key of B \flat



53 Fm7 F Aeolian scale; mode vi ("Natural minor"), key of A \flat



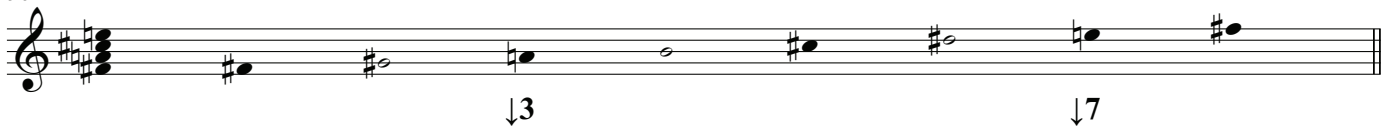
54 F \emptyset 7 F Locrian scale; mode vii, key of G \flat



55 G \flat Δ 7 G \flat Ionian scale; mode I

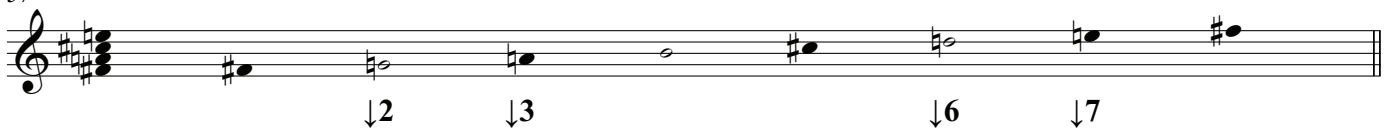


56 F \sharp m7 F \sharp Dorian scale; mode ii, key of E



enharmonic equivalent of G \flat Dorian

57 F \sharp m7 F \sharp Phrygian scale; mode iii, key of D

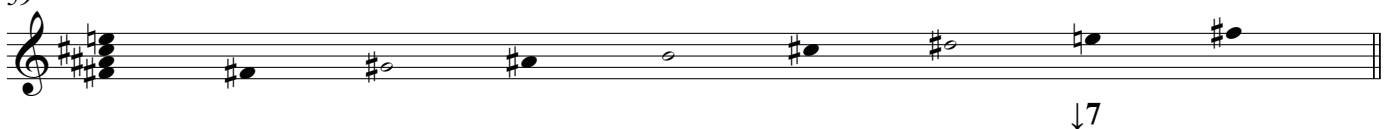


enharmonic equivalent of G \flat Phrygian

58 G \flat Δ 7 G \flat Lydian scale; mode IV, key of D \flat

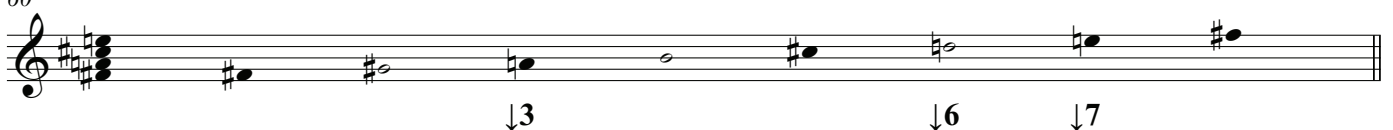


59 F \sharp 7 F \sharp Mixolydian scale; mode V, key of B



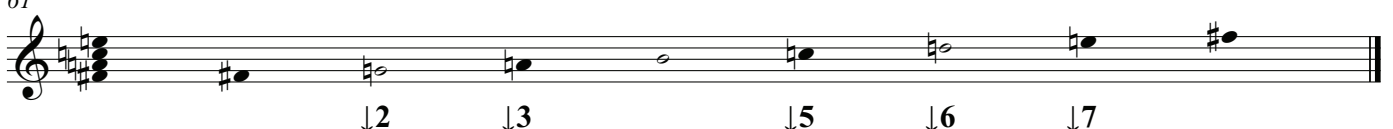
enharmonic equivalent of G \flat Mixolydian

60 F \sharp m7 F \sharp Aeolian scale; mode vi ("Natural minor"), key of A



enharmonic equivalent of G \flat Aeolian

61 F \sharp \emptyset 7 F \sharp Locrian scale; mode vii, key of G



enharmonic equivalent of G \flat Locrian

62 $G^{\Delta 7}$ G Ionian scale; mode I

63 Gm^7 G Dorian scale; mode ii, key of F

64 Gm^7 G Phrygian scale; mode iii, key of Eb

65 $G^{\Delta 7}$ G Lydian scale; mode IV, key of D

66 G^7 G Mixolydian scale; mode V, key of C

67 Gm^7 G Aeolian scale; mode vi ("Natural minor"), key of Bb

68 $G^{\emptyset 7}$ G Locrian scale; mode vii, key of Ab

69 Ab^{Δ7} Ab Ionian scale; mode I

70 Abm⁷ Ab Dorian scale; mode ii, key of Gb

71 G#m⁷ G# Phrygian scale; mode iii, key of E

enharmonic equivalent of Ab Phrygian

72 Ab^{Δ7} Ab Lydian scale; mode IV, key of Eb

73 Ab⁷ Ab Mixolydian scale; mode V, key of Db

74 G#m⁷ G# Aeolian scale; mode vi ("Natural minor"), key of B

enharmonic equivalent of Ab Aeolian

75 G#^{ø7} G# Locrian scale; mode vii, key of A

enharmonic equivalent of Ab Locrian

76 A^{Δ7} A Ionian scale; mode I

↓3 ↓7

77 Am⁷ A Dorian scale; mode ii, key of G

↓3 ↓7

78 Am⁷ A Phrygian scale; mode iii, key of F

↓2 ↓3 ↓6 ↓7

79 A^{Δ7} A Lydian scale; mode IV, key of E

↑4

80 A⁷ A Mixolydian scale; mode V, key of D

↓7

81 Am⁷ A Aeolian scale; mode vi ("Natural minor"), key of C

↓3 ↓6 ↓7

82 A^{ø7} A Locrian scale; mode vii, key of Bb

↓2 ↓3 ↓5 ↓6 ↓7

B \flat root

83 B \flat Δ 7 B \flat Ionian scale; mode I

84 B \flat m7 B \flat Dorian scale; mode ii, key of A \flat

85 B \flat m7 B \flat Phrygian scale; mode iii, key of G \flat

86 B \flat Δ 7 B \flat Lydian scale; mode IV, key of F

87 B \flat 7 B \flat Mixolydian scale; mode V, key of E \flat

88 B \flat m7 B \flat Aeolian scale; mode vi ("Natural minor"), key of D \flat

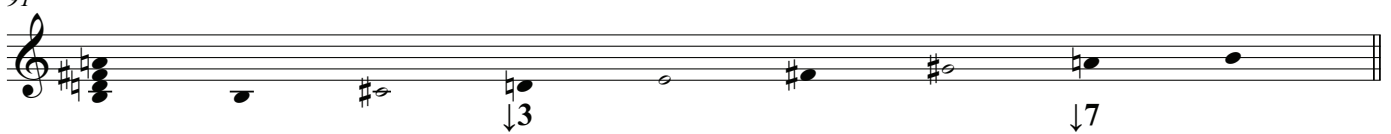
89 A \sharp \emptyset 7 A \sharp Locrian scale; mode vii, key of B

enharmonic equivalent of B \flat Locrian

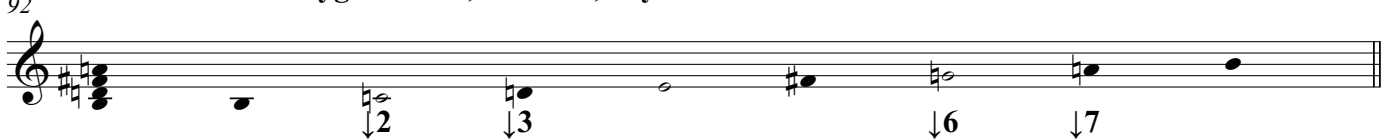
90 B Δ 7 B Ionian scale; mode I




91 Bm⁷ B Dorian scale; mode ii, key of A



92 Bm⁷ B Phrygian scale; mode iii, key of G

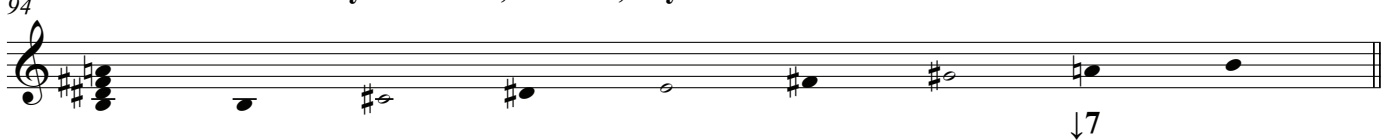


93 Cb Δ 7 Cb Lydian scale; mode IV, key of Gb

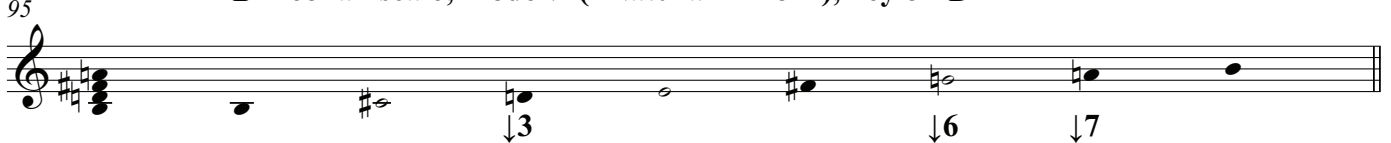


enharmonic equivalent of B Lydian

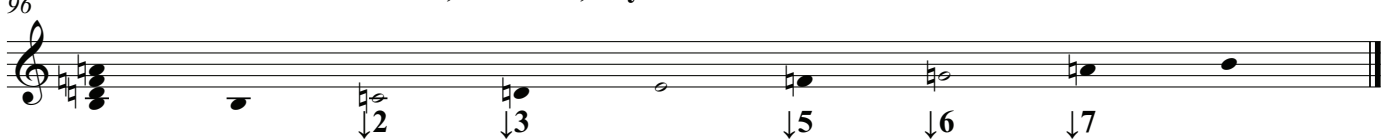
94 B⁷ B Mixolydian scale; mode V, key of E



95 Bm⁷ B Aeolian scale; mode vi ("Natural minor"), key of D



96 B \emptyset 7 B Locrian scale; mode vii, key of C



Chapter 5- Harmonic analysis part I: Common Major Scale Chord Progressions

Per Chapter 3: c.1. A **parent scale** is the scale from which a set of modes is derived.

a. A **parent scale** is also the scale from which a set of **chords** is derived.

C major is an example of a parent scale:

C major



Per Chapter 2: b.2.1 A **chord** is a harmony containing three (3) or more notes.

b. The **major scale** can be harmonized to produce **chords**.

Per Chapter 2: d. A **7th (seventh) chord** is a harmony containing four (4) notes.

c. **7th chords** are the most common type of chord used in jazz.

d. **Chords** may be organized into **chord progressions**.

1. A **chord progression** is a series or sequence of **chords**, defined in order of appearance from first to last.

1.2 **Chord progressions** are also referred to as **chord changes**.

1.3 **Chord progressions** produce the harmonic background which is used to accompany **melodies**.

1.4 **Chord progressions** are also the harmonic background against which soloists **improvise**.

2. A **naturally occurring progression** is the default progression of chords generated by **harmonizing** the notes of a scale in order from first to last, and lowest to highest.

The following example shows the **naturally occurring progression** of **7th chords** produced by **harmonizing** the **major scale**:

7th chords

2	C ^{Δ7}	Dm ⁷	Em ⁷	F ^{Δ7}	G ⁷	Am ⁷	B ^{ø7}	C ^{Δ7}
	I ⁷	ii ⁷	iii ⁷	IV ⁷	V ⁷	vi ⁷	vii ^{ø7}	I ⁷
	Major7th	minor7th	minor7th	Major7th	Dominant7th	minor7th	half diminished7th	Major7th

e. **Chords** may also be organized into **progressions** in any order that appeals to the composer of a piece of music.

Examples: [I-V-vi-IV]; [IV-vi-iii-V]

In this chapter, we will be looking at **common chord progressions** derived from the **major scale**.

f. **Common chord progressions** are sequences of chords that are predictably found time and again in written music works (such as jazz lead sheets).

1. When and if **chords** in a sequence follow **common chord progressions**, we can determine that all the chords in the sequence are derived from the same **parent scale**.

1.1 **Common chord progressions** may be determined by a process of elimination:

If two or more adjacent **chords** can be traced to a single **parent scale**, then those chords can be said to be **related**, and improvised against using the same **parent scale** and **relative modes**. Only the **chord tones** vary from one chord to the next.

2. Composers often make use of **common chord progressions**.

3. **Common chord progressions** tend to accompany **melodies** which are traditional (and evolutionary) in nature.

4. Composers working in improvisational styles make use of **common chord progressions** in order to allow soloists to apply a **common vocabulary of traditional melodic ideas** when improvising over chord changes.

g. **Analysis** is the study of musical form and structure.

1. **Analysis** includes the study of **chords** and their **parent scales**. This is called **harmonic analysis**.

1.1 One of the most important functions of **analysis** is determining the **Roman numeral** identity of a chord based on its place in the **naturally occurring progression** of its **parent scale**.

1.2 **Chords** in written music works are often used in contexts in which their **parent scales** are not readily obvious. The challenge of analysis is tracing isolated chords back to their parent scales.

1.3 **Chords** can often be traced back to more than one potential **parent scale**, as many scales share certain types of chords.

2. Analysis of the **naturally occurring progression** of a major scale can be represented by the **Roman numeral** values corresponding to each chord's place in the scale:

[I-ii-iii-IV-V-vi-vii]

3. Any **chord progression** can be represented by a series of **Roman numerals**.

3.1 **Roman numeral analysis** reduces a chord progression to a series of **Roman numerals** corresponding to each chord's place in the scale from which it is derived.

Examples: [I-ii-vi-IV-ii-V]; [iii-vi-IV-V-I]; [I-V-vi-IV]; [IV-vi-iii-V]

4. Studying **common chord progressions** is a useful tool for determining which scales, modes, and chord tones to use when soloing over a given chart, lead sheet, or other written music work.

4.1 **Common chord progressions** and their accompanying scales should be committed to memory in order to achieve the best results when improvising.

4.2 When **common chord progressions** are committed to memory, it becomes easier to identify the appropriate scale choices for soloing over a given chart, lead sheet, or other written music work.

2. [IV-V-I] progression

6

F^{Δ7} G⁷ C^{Δ7}

IV⁷ V⁷ I⁷

Major7th Dominant7th Major7th

Corresponding **modes** and **chord tones**

7

F^{Δ7} F Lydian scale; mode IV G⁷ G Mixolydian scale; mode V C^{Δ7} C Ionian scale; mode I

IV⁷ V⁷ I⁷

Major7th Dominant7th Major7th

2.1 The previous example is a **[IV-V-I] chord progression**, pronounced "four-five-one." This progression is known as a **[IV-V-I] turnaround**.

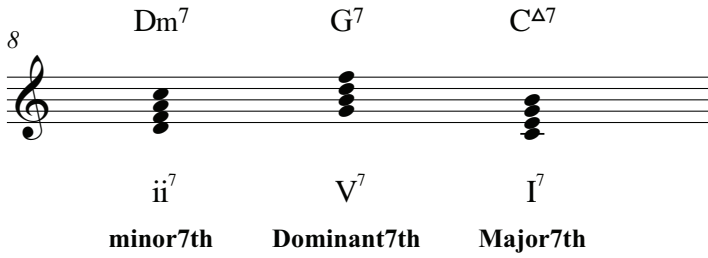
2.2 The **[IV] chord**, **[V] chord**, and **[I] chord** are all derived from the same **parent scale**.

2.3 **Melodies** may be improvised over each **chord** using the same **parent scale**.

2.4 **Melodies** may also be improvised over each **chord** using the specific **modes** and **chord tones** corresponding to each **chord**.

3. [ii-V-I] progression

8



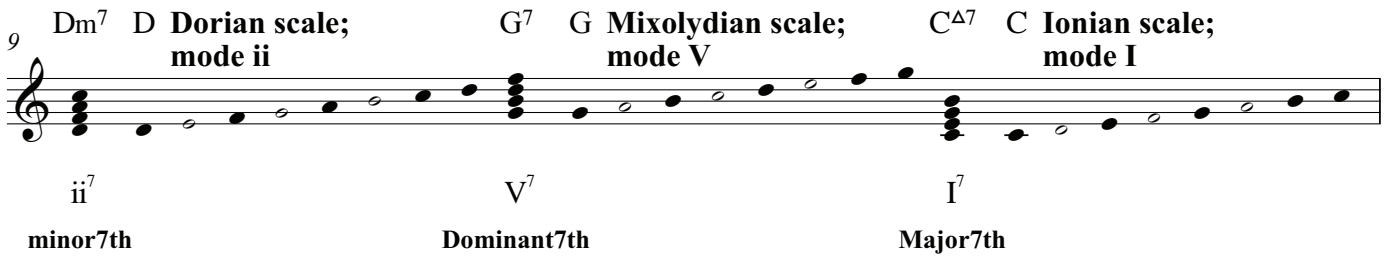
Dm⁷ G⁷ C^{Δ7}

ii⁷ V⁷ I⁷

minor7th Dominant7th Major7th

Corresponding modes and chord tones

9



Dm⁷ D Dorian scale; mode ii G⁷ G Mixolydian scale; mode V C^{Δ7} C Ionian scale; mode I

ii⁷ V⁷ I⁷

minor7th Dominant7th Major7th

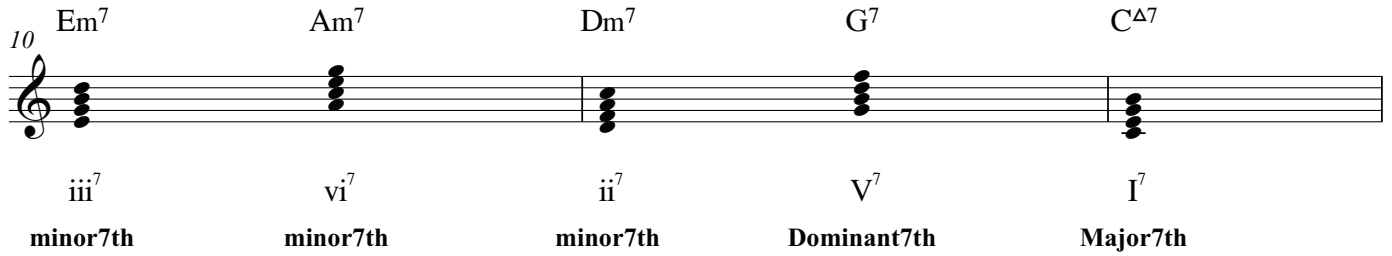
3.1 The previous example is a **[ii-V-I] chord progression**, pronounced "two-five-one." This progression is known as a **[ii-V-I] turnaround**.

3.2 The **[ii] chord**, **[V] chord**, and **[I] chord** are all derived from the same **parent scale**.

3.3 Prior statements 2.3 and 2.4 apply.

4. [iii-vi-ii-V-I] progression

10



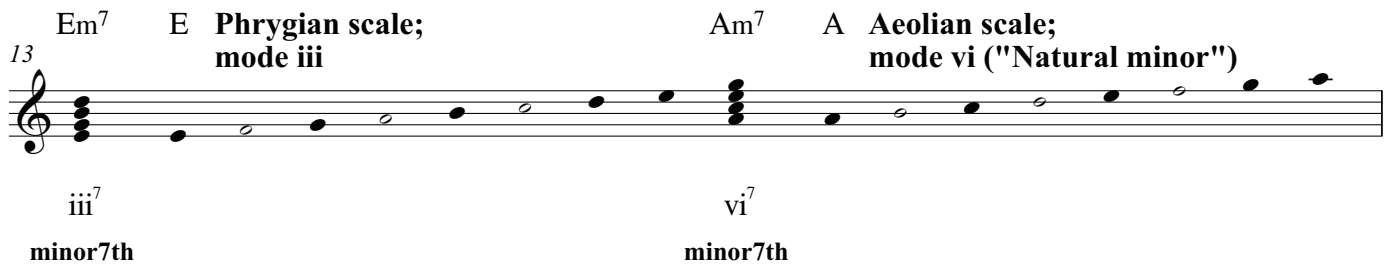
Em⁷ Am⁷ Dm⁷ G⁷ C^{Δ7}

iii⁷ vi⁷ ii⁷ V⁷ I⁷

minor7th minor7th minor7th Dominant7th Major7th

Corresponding **modes** and **chord tones**

13



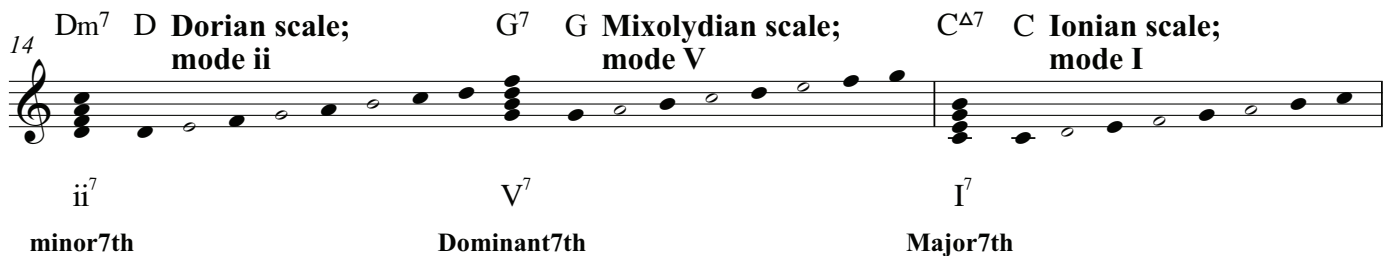
Em⁷ E Phrygian scale; mode iii

Am⁷ A Aeolian scale; mode vi ("Natural minor")

iii⁷ vi⁷

minor7th minor7th

14



Dm⁷ D Dorian scale; mode ii

G⁷ G Mixolydian scale; mode V

C^{Δ7} C Ionian scale; mode I

ii⁷ V⁷ I⁷

minor7th Dominant7th Major7th

4.1 The previous example is a **[iii-vi-ii-V-I] chord progression**, pronounced "three-six-two-five-one." This progression is known as a **[iii-vi-ii-V-I] turnaround**.

4.2 This progression is also known as a **falling 5ths progression**, as the root notes of each chord [E-A-D-G-C] are 5 letters apart descending through the musical alphabet:

[E-D-C-B-A-G-F-E-D-C-B-A-G-F-E-D-C]

4.3 Prior statements 2.3 and 2.4 apply.

5. [IV-vii-iii-vi-ii-V-I] progression

16

$F^{\Delta 7}$ $B^{\circ 7}$ $E m^7$ $A m^7$ $D m^7$ G^7 $C^{\Delta 7}$

IV^7 $vii^{\circ 7}$ iii^7 vi^7 ii^7 V^7 I^7

Major7th half diminished7th minor7th minor7th minor7th Dominant7th Major7th

Corresponding modes and chord tones

20

$F^{\Delta 7}$ F Lydian scale; mode IV $B^{\circ 7}$ B Locrian scale; mode vii

IV^7 $vii^{\circ 7}$

Major7th half diminished7th

21

$E m^7$ E Phrygian scale; mode iii $A m^7$ A Aeolian scale; mode vi ("Natural minor")

iii^7 vi^7

minor7th minor7th

22

$D m^7$ D Dorian scale; mode ii G^7 G Mixolydian scale; mode V $C^{\Delta 7}$ C Ionian scale; mode I

ii^7 V^7 I^7

minor7th Dominant7th Major7th

5.1 The previous example is a [IV-vii-iii-vi-ii-V-I] chord progression, pronounced "four-seven-three-six-two-five-one."

5.2 This progression is also a **falling 5ths progression**; the root notes of each chord [F-B-E-A-D-G-C] are 5 letters apart descending through the musical alphabet:

[F-E-D-C-B-A-G-F-E-D-C-B-A-G-F-E-D-C-B-A-G-F-E-D-C]

5.3 Prior statements 2.3 and 2.4 apply.

7. [I-iii-vi-IV-ii-V-vii-I] progression

32 C^{Δ7} Em⁷ Am⁷ F^{Δ7} Dm⁷ G⁷ B^{ø7} C^{Δ7}

I⁷ iii⁷ vi⁷ IV⁷ ii⁷ V⁷ vii^{ø7} I⁷

Major7th minor7th minor7th Major7th minor7th Dominant7th half diminished7th Major7th

Corresponding modes and chord tones

36 C^{Δ7} C Ionian scale; mode I Em⁷ E Phrygian scale; mode iii

I⁷ iii⁷

Major7th minor7th

37 Am⁷ A Aeolian scale; mode vi ("Natural minor") F^{Δ7} F Lydian scale; mode IV

vi⁷ IV⁷

minor7th Major7th

38 Dm⁷ D Dorian scale; mode ii G⁷ G Mixolydian scale; mode V

ii⁷ V⁷

minor7th Dominant7th

39 B^{ø7} B Locrian scale; mode vii C^{Δ7} C Ionian scale; mode I

vii^{ø7} I⁷

half diminished7th Major7th

7.1 The previous example is a [I-iii-vi-IV-ii-V-vii-I] chord progression, pronounced "one-three-six-four-two-five-seven-one." Variations of this progression are frequently found in classically influenced music; the progression evolved out of the rules of four-part choral writing.

7.2 Prior statements 2.3 and 2.4 apply.

j. **Parent scales and common chord progressions** in all keys
(corresponding **modes** and **chord tones** omitted):

C Major

1. [V-I] progression

2. [IV-V-I] progression

40

G⁷ C^{Δ7} F^{Δ7} G⁷ C^{Δ7}

V⁷ I⁷ IV⁷ V⁷ I⁷

3. [ii-V-I] progression

4. [iii-vi-ii-V-I] progression

42

Dm⁷ G⁷ C^{Δ7} Em⁷ Am⁷ Dm⁷ G⁷ C^{Δ7}

ii⁷ V⁷ I⁷ iii⁷ vi⁷ ii⁷ V⁷ I⁷

5. [IV-vii-iii-vi-ii-V-I] progression

46

F^{Δ7} B^{ø7} Em⁷ Am⁷ Dm⁷ G⁷ C^{Δ7}

IV⁷ vii^{ø7} iii⁷ vi⁷ ii⁷ V⁷ I⁷

6. [ii-V-I-IV-vii-iii-vi] progression

50

Dm⁷ G⁷ C^{Δ7} F^{Δ7} B^{ø7} Em⁷ Am⁷

ii⁷ V⁷ I⁷ IV⁷ vii^{ø7} iii⁷ vi⁷

7. [I-iii-vi-IV-ii-V-vii-I] progression

54

C^{Δ7} Em⁷ Am⁷ F^{Δ7} Dm⁷ G⁷ B^{ø7} C^{Δ7}

I⁷ iii⁷ vi⁷ IV⁷ ii⁷ V⁷ vii^{ø7} I⁷

Db Major

1. [V-I] progression

58

Ab⁷ Db^{Δ7}

V⁷ I⁷

2. [IV-V-I] progression

Gb^{Δ7} Ab⁷ Db^{Δ7}

IV⁷ V⁷ I⁷

3. [ii-V-I] progression

60

Ebm⁷ Ab⁷ Db^{Δ7}

ii⁷ V⁷ I⁷

4. [iii-vi-ii-V-I] progression

Fm⁷ Bbm⁷ Ebm⁷ Ab⁷ Db^{Δ7}

iii⁷ vi⁷ ii⁷ V⁷ I⁷

5. [IV-vii-iii-vi-ii-V-I] progression

64

Gb^{Δ7} C^{ø7} Fm⁷ Bbm⁷ Ebm⁷ Ab⁷ Db^{Δ7}

IV⁷ vii^{ø7} iii⁷ vi⁷ ii⁷ V⁷ I⁷

6. [ii-V-I-IV-vii-iii-vi] progression

68

Ebm⁷ Ab⁷ Db^{Δ7} Gb^{Δ7} C^{ø7} Fm⁷ Bbm⁷

ii⁷ V⁷ I⁷ IV⁷ vii^{ø7} iii⁷ vi⁷

7. [I-iii-vi-IV-ii-V-vii-I] progression

72

Db^{Δ7} Fm⁷ Bbm⁷ Gb^{Δ7} Ebm⁷ Ab⁷ C^{ø7} Db^{Δ7}

I⁷ iii⁷ vi⁷ IV⁷ ii⁷ V⁷ vii^{ø7} I⁷

D Major

1. [V-I] progression

76 A⁷ D^{Δ7} G^{Δ7} A⁷ D^{Δ7}

V⁷ I⁷ IV⁷ V⁷ I⁷

2. [IV-V-I] progression

3. [ii-V-I] progression

78 Em⁷ A⁷ D^{Δ7} F^{Δm7} Bm⁷ Em⁷ A⁷ D^{Δ7}

ii⁷ V⁷ I⁷ iii⁷ vi⁷ ii⁷ V⁷ I⁷

4. [iii-vi-ii-V-I] progression

5. [IV-vii-iii-vi-ii-V-I] progression

82 G^{Δ7} C^{Δø7} F^{Δm7} Bm⁷ Em⁷ A⁷ D^{Δ7}

IV⁷ vii^{ø7} iii⁷ vi⁷ ii⁷ V⁷ I⁷

6. [ii-V-I-IV-vii-iii-vi] progression

86 Em⁷ A⁷ D^{Δ7} G^{Δ7} C^{Δø7} F^{Δm7} Bm⁷

ii⁷ V⁷ I⁷ IV⁷ vii^{ø7} iii⁷ vi⁷

7. [I-iii-vi-IV-ii-V-vii-I] progression

90 D^{Δ7} F^{Δm7} Bm⁷ G^{Δ7} Em⁷ A⁷ C^{Δø7} D^{Δ7}

I⁷ iii⁷ vi⁷ IV⁷ ii⁷ V⁷ vii^{ø7} I⁷

E \flat Major

1. [V-I] progression

94

B \flat ⁷ E \flat Δ ⁷

V⁷ I⁷

2. [IV-V-I] progression

A \flat Δ ⁷ B \flat ⁷ E \flat Δ ⁷

IV⁷ V⁷ I⁷

3. [ii-V-I] progression

96

Fm⁷ B \flat ⁷ E \flat Δ ⁷

ii⁷ V⁷ I⁷

4. [iii-vi-ii-V-I] progression

Gm⁷ Cm⁷ Fm⁷ B \flat ⁷ E \flat Δ ⁷

iii⁷ vi⁷ ii⁷ V⁷ I⁷

5. [IV-vii-iii-vi-ii-V-I] progression

100

A \flat Δ ⁷ D \emptyset ⁷ Gm⁷ Cm⁷ Fm⁷ B \flat ⁷ E \flat Δ ⁷

IV⁷ vii^{°7} iii⁷ vi⁷ ii⁷ V⁷ I⁷

6. [ii-V-I-IV-vii-iii-vi] progression

104

Fm⁷ B \flat ⁷ E \flat Δ ⁷ A \flat Δ ⁷ D \emptyset ⁷ Gm⁷ Cm⁷

ii⁷ V⁷ I⁷ IV⁷ vii^{°7} iii⁷ vi⁷

7. [I-iii-vi-IV-ii-V-vii-I] progression

108

E \flat Δ ⁷ Gm⁷ Cm⁷ A \flat Δ ⁷ Fm⁷ B \flat ⁷ D \emptyset ⁷ E \flat Δ ⁷

I⁷ iii⁷ vi⁷ IV⁷ ii⁷ V⁷ vii^{°7} I⁷

E Major

1. [V-I] progression

112

B⁷ E^{Δ7}

V⁷ I⁷

2. [IV-V-I] progression

A^{Δ7} B⁷ E^{Δ7}

IV⁷ V⁷ I⁷

3. [ii-V-I] progression

114

F^{#m7} B⁷ E^{Δ7}

ii⁷ V⁷ I⁷

4. [iii-vi-ii-V-I] progression

G^{#m7} C^{#m7} F^{#m7} B⁷ E^{Δ7}

iii⁷ vi⁷ ii⁷ V⁷ I⁷

5. [IV-vii-iii-vi-ii-V-I] progression

118

A^{Δ7} D^{#ø7} G^{#m7} C^{#m7} F^{#m7} B⁷ E^{Δ7}

IV⁷ vii^{ø7} iii⁷ vi⁷ ii⁷ V⁷ I⁷

6. [ii-V-I-IV-vii-iii-vi] progression

122

F^{#m7} B⁷ E^{Δ7} A^{Δ7} D^{#ø7} G^{#m7} C^{#m7}

ii⁷ V⁷ I⁷ IV⁷ vii^{ø7} iii⁷ vi⁷

7. [I-iii-vi-IV-ii-V-vii-I] progression

126

E^{Δ7} G^{#m7} C^{#m7} A^{Δ7} F^{#m7} B⁷ D^{#ø7} E^{Δ7}

I⁷ iii⁷ vi⁷ IV⁷ ii⁷ V⁷ vii^{ø7} I⁷

F Major

1. [V-I] progression

130

C⁷ F^{Δ7}

V⁷ I⁷

2. [IV-V-I] progression

130

B^bΔ⁷ C⁷ F^{Δ7}

IV⁷ V⁷ I⁷

3. [ii-V-I] progression

132

Gm⁷ C⁷ F^{Δ7}

ii⁷ V⁷ I⁷

4. [iii-vi-ii-V-I] progression

132

Am⁷ Dm⁷ Gm⁷ C⁷ F^{Δ7}

iii⁷ vi⁷ ii⁷ V⁷ I⁷

5. [IV-vii-iii-vi-ii-V-I] progression

136

B^bΔ⁷ E^{ø7} Am⁷ Dm⁷ Gm⁷ C⁷ F^{Δ7}

IV⁷ vii^{ø7} iii⁷ vi⁷ ii⁷ V⁷ I⁷

6. [ii-V-I-IV-vii-iii-vi] progression

140

Gm⁷ C⁷ F^{Δ7} B^bΔ⁷ E^{ø7} Am⁷ Dm⁷

ii⁷ V⁷ I⁷ IV⁷ vii^{ø7} iii⁷ vi⁷

7. [I-iii-vi-IV-ii-V-vii-I] progression

144

F^{Δ7} Am⁷ Dm⁷ B^bΔ⁷ Gm⁷ C⁷ E^{ø7} F^{Δ7}

I⁷ iii⁷ vi⁷ IV⁷ ii⁷ V⁷ vii^{ø7} I⁷

Gb Major

1. [V-I] progression

148

Db⁷ Gb^{A7}

V⁷ I⁷

2. [IV-V-I] progression

148

Cb^{A7} Db⁷ Gb^{A7}

IV⁷ V⁷ I⁷

3. [ii-V-I] progression

150

Abm⁷ Db⁷ Gb^{A7}

ii⁷ V⁷ I⁷

4. [iii-vi-ii-V-I] progression

150

Bbm⁷ Ebm⁷ Abm⁷ Db⁷ Gb^{A7}

iii⁷ vi⁷ ii⁷ V⁷ I⁷

5. [IV-vii-iii-vi-ii-V-I] progression

154

Cb^{A7} F^{ø7} Bbm⁷ Ebm⁷ Abm⁷ Db⁷ Gb^{A7}

IV⁷ vii⁷ iii⁷ vi⁷ ii⁷ V⁷ I⁷

6. [ii-V-I-IV-vii-iii-vi] progression

158

Abm⁷ Db⁷ Gb^{A7} Cb^{A7} F^{ø7} Bbm⁷ Ebm⁷

ii⁷ V⁷ I⁷ IV⁷ vii⁷ iii⁷ vi⁷

7. [I-iii-vi-IV-ii-V-vii-I] progression

162

Gb^{A7} Bbm⁷ Ebm⁷ Cb^{A7} Abm⁷ Db⁷ F^{ø7} Gb^{A7}

I⁷ iii⁷ vi⁷ IV⁷ ii⁷ V⁷ vii⁷ I⁷

G Major

1. [V-I] progression

166

D⁷ G^{Δ7}

V⁷ I⁷

2. [IV-V-I] progression

C^{Δ7} D⁷ G^{Δ7}

IV⁷ V⁷ I⁷

3. [ii-V-I] progression

168

Am⁷ D⁷ G^{Δ7}

ii⁷ V⁷ I⁷

4. [iii-vi-ii-V-I] progression

Bm⁷ Em⁷ Am⁷ D⁷ G^{Δ7}

iii⁷ vi⁷ ii⁷ V⁷ I⁷

5. [IV-vii-iii-vi-ii-V-I] progression

172

C^{Δ7} F^{#ø7} Bm⁷ Em⁷ Am⁷ D⁷ G^{Δ7}

IV⁷ vii^{ø7} iii⁷ vi⁷ ii⁷ V⁷ I⁷

6. [ii-V-I-IV-vii-iii-vi] progression

176

Am⁷ D⁷ G^{Δ7} C^{Δ7} F^{#ø7} Bm⁷ Em⁷

ii⁷ V⁷ I⁷ IV⁷ vii^{ø7} iii⁷ vi⁷

7. [I-iii-vi-IV-ii-V-vii-I] progression

180

G^{Δ7} Bm⁷ Em⁷ C^{Δ7} Am⁷ D⁷ F^{#ø7} G^{Δ7}

I⁷ iii⁷ vi⁷ IV⁷ ii⁷ V⁷ vii^{ø7} I⁷

Ab Major

1. [V-I] progression

184

V⁷ I⁷

2. [IV-V-I] progression

184

IV⁷ V⁷ I⁷

3. [ii-V-I] progression

186

ii⁷ V⁷ I⁷

4. [iii-vi-ii-V-I] progression

186

iii⁷ vi⁷ ii⁷ V⁷ I⁷

5. [IV-vii-iii-vi-ii-V-I] progression

190

IV⁷ vii^{°7} iii⁷ vi⁷ ii⁷ V⁷ I⁷

6. [ii-V-I-IV-vii-iii-vi] progression

194

ii⁷ V⁷ I⁷ IV⁷ vii^{°7} iii⁷ vi⁷

7. [I-iii-vi-IV-ii-V-vii-I] progression

198

I⁷ iii⁷ vi⁷ IV⁷ ii⁷ V⁷ vii^{°7} I⁷

A Major

1. [V-I] progression

202

V⁷ I⁷

2. [IV-V-I] progression

203

IV⁷ V⁷ I⁷

3. [ii-V-I] progression

204

ii⁷ V⁷ I⁷

4. [iii-vi-ii-V-I] progression

205

iii⁷ vi⁷ ii⁷ V⁷ I⁷

5. [IV-vii-iii-vi-ii-V-I] progression

208

IV⁷ vii^{ø7} iii⁷ vi⁷ ii⁷ V⁷ I⁷

6. [ii-V-I-IV-vii-iii-vi] progression

212

ii⁷ V⁷ I⁷ IV⁷ vii^{ø7} iii⁷ vi⁷

7. [I-iii-vi-IV-ii-V-vii-I] progression

216

I⁷ iii⁷ vi⁷ IV⁷ ii⁷ V⁷ vii^{ø7} I⁷

B \flat Major

1. [V-I] progression

220 F⁷ B \flat Δ ⁷

V⁷ I⁷

2. [IV-V-I] progression

E \flat Δ ⁷ F⁷ B \flat Δ ⁷

IV⁷ V⁷ I⁷

3. [ii-V-I] progression

222 Cm⁷ F⁷ B \flat Δ ⁷

ii⁷ V⁷ I⁷

4. [iii-vi-ii-V-I] progression

Dm⁷ Gm⁷ Cm⁷ F⁷ B \flat Δ ⁷

iii⁷ vi⁷ ii⁷ V⁷ I⁷

5. [IV-vii-iii-vi-ii-V-I] progression

226 E \flat Δ ⁷ A \emptyset ⁷ Dm⁷ Gm⁷ Cm⁷ F⁷ B \flat Δ ⁷

IV⁷ vii^{ø7} iii⁷ vi⁷ ii⁷ V⁷ I⁷

6. [ii-V-I-IV-vii-iii-vi] progression

230 Cm⁷ F⁷ B \flat Δ ⁷ E \flat Δ ⁷ A \emptyset ⁷ Dm⁷ Gm⁷

ii⁷ V⁷ I⁷ IV⁷ vii^{ø7} iii⁷ vi⁷

7. [I-iii-vi-IV-ii-V-vii-I] progression

234 B \flat Δ ⁷ Dm⁷ Gm⁷ E \flat Δ ⁷ Cm⁷ F⁷ A \emptyset ⁷ B \flat Δ ⁷

I⁷ iii⁷ vi⁷ IV⁷ ii⁷ V⁷ vii^{ø7} I⁷

B Major

1. [V-I] progression

238

F#⁷ B^{Δ7}

V⁷ I⁷

2. [IV-V-I] progression

E^{Δ7} F#⁷ B^{Δ7}

IV⁷ V⁷ I⁷

3. [ii-V-I] progression

240

C#m⁷ F#⁷ B^{Δ7}

ii⁷ V⁷ I⁷

4. [iii-vi-ii-V-I] progression

D#m⁷ G#m⁷ C#m⁷ F#⁷ B^{Δ7}

iii⁷ vi⁷ ii⁷ V⁷ I⁷

5. [IV-vii-iii-vi-ii-V-I] progression

244

E^{Δ7} A#^{ø7} D#m⁷ G#m⁷ C#m⁷ F#⁷ B^{Δ7}

IV⁷ vii^{ø7} iii⁷ vi⁷ ii⁷ V⁷ I⁷

6. [ii-V-I-IV-vii-iii-vi] progression

248

C#m⁷ F#⁷ B^{Δ7} E^{Δ7} A#^{ø7} D#m⁷ G#m⁷

ii⁷ V⁷ I⁷ IV⁷ vii^{ø7} iii⁷ vi⁷

7. [I-iii-vi-IV-ii-V-vii-I] progression

252

B^{Δ7} D#m⁷ G#m⁷ E^{Δ7} C#m⁷ F#⁷ A#^{ø7} B^{Δ7}

I⁷ iii⁷ vi⁷ IV⁷ ii⁷ V⁷ vii^{ø7} I⁷

Chapter 6- Harmonic analysis part II: Unrelated Chords

David M. Shere

a. **Harmonic analysis** is the process of examining **chord progressions** in music, and determining the **parent scale** of each chord in order to better interpret and/or improvise melodies.

1. It is important to regularly study **jazz charts**, and determine what **scales** may be used to **improvise** over the individual **chords** of each tune.

2. **Harmonic analysis** typically begins with the assumption that individual **chords** and/or **chord progressions** can be traced back to a specific **scale** or **key**. This is generally true.

2.1 **HOWEVER**, chord progressions in most jazz standards cannot be analyzed as being in a single **major** or **minor key**. In point of fact, the following is true:

Most jazz charts change keys and scales often, without any indication as to scale or key other than the chord symbols.

2.2 You cannot rely on key signatures in jazz charts to tell you what key you are in, or what scales you need to use to improvise.

2.3 You need to rely on the chord symbols and the melody of the tune to determine what scales are best used for improvising.

MOST IMPORTANT:

3. Often, each chord in a progression is derived from a different parent scale than the adjacent chords.

3.1 **If each chord** in a progression is derived from a different **parent scale** than the adjacent chords, **then each chord** in the progression can be said to be **unrelated** to the adjacent chords.

3.2 **If each chord** in a progression can be said to be **unrelated** to the adjacent chords, **then each chord** requires a different **mode** and set of **chord tones** than the adjacent chords.

EXAMPLES:

Example 1: [G7-C7-D7-Eb7]

2 G⁷ C⁷ D⁷ Eb⁷

This **chord progression** is made up entirely of **dominant 7th chords**. As each major scale contains only one **dominant 7th chord** when harmonized, logic dictates that each **chord** is derived from a different **parent scale**, and therefore each chord requires a different **mode** to solo against the chord.

The most common choice for soloing against **dominant 7th chords** is the **Mixolydian mode**.

3 G^7 **G Mixolydian scale; mode V, key of C**

4 C^7 **C Mixolydian scale; mode V, key of F**

5 D^7 **D Mixolydian scale; mode V, key of G**

6 E^b7 **E^b Mixolydian scale; mode V, key of A^b**

Each chord in this progression uses a **Mixolydian mode** that is derived from a different **parent scale** ($G^7 = C$ major; $C^7 = F$ Major; $D^7 = G$ major; $E^b7 = A^b$ major). Therefore, soloing over each **chord** requires moving to a different **key** for each chord.

Example 2

7 F⁷ G^{b7} G⁷ A^{b7} A⁷ B^{b7}

8 B⁷ B^{b7} A⁷ A^{b7} G⁷ C⁷

Like example 1, this **chord progression** is made up entirely of **dominant 7th chords**.

The most common choice for soloing against **dominant 7th chords** is the **Mixolydian mode**.

9 F⁷ F Mixolydian scale; mode V, key of B^b

10 F^{#7} F[#] Mixolydian scale; mode V, key of B

enharmonic equivalent of G^b Mixolydian

ETC.

While our modal choices may seem obvious when dealing with **dominant 7th chords**, there is often a certain amount of ambiguity in determining which modes may be used to solo over certain chords, as we will see in **example 3**.

Mode choices for **major scale chords** may be summarized by the following list:

1. **Major 7th chords** = Ionian [I]; Lydian [IV]
2. **Minor 7th chords** = Dorian [ii]; Phrygian [iii]; Aeolian [vi]
3. **Dominant 7th chords** = Mixolydian [V]
4. **Half-diminished 7th chords** = Locrian [vii]

Some of these chords will have additional mode choices when we study **minor scale modes**.

Example 3: [Dm7-Ebm7]

11 Dm⁷ Eb^{m7}

This **chord progression** is made up entirely of **minor 7th chords**.

As each major scale contains three **minor 7th chords** when harmonized, there are three possible **modes** that can be used to solo against any **minor 7th chord**. These are:

1. **Dorian** mode;
2. **Phrygian** mode;
3. **Aeolian** mode.

12 Dm⁷ **D Dorian scale; mode ii, key of C**

13 Eb^{m7} **Eb Dorian scale; mode ii, key of Db**

14 Dm⁷ **D Phrygian scale; mode iii, key of Bb**

15 D#m⁷ **D# Phrygian scale; mode iii, key of B**

enharmonic equivalent of Eb Phrygian

16 Dm⁷ **D Aeolian scale; mode vi ("Natural minor"), key of F**

17 Eb^{m7} **Eb Aeolian scale; mode vi ("Natural minor"), key of Gb**

Example 4: [D7sus-F7sus-E \flat 7sus-D \flat 7sus]

18 D⁷SUS F⁷SUS E \flat ⁷SUS D \flat ⁷SUS

This **chord progression** is made up entirely of **7th sus (suspended) chords**.

7th sus chords are a type of chord in which the **major 3rd** or **minor 3rd** has been replaced by the **2nd** (in this case) or **4th** note of the scale, and are therefore neither **major** nor **minor** in quality.

(**Additional chord tones** are explained more thoroughly in Chapter 7).

D7sus is harmonically equivalent to both **D7** and **Dm7**, due to the absence of a **M3** or **m3**.

As a result, there is more than one appropriate **mode** choice for each chord.

Two possible choices for soloing against **7th sus chords** are:

1. the **Mixolydian mode**;
2. the **Dorian mode**.

19 **D⁷ D Mixolydian scale; mode V, key of G**

20 **F⁷ F Mixolydian scale; mode V, key of B \flat**

21 **E \flat ⁷ E \flat Mixolydian scale; mode V, key of A \flat**

22 **D \flat ⁷ D \flat Mixolydian scale; mode V, key of G \flat**

23 **Dm⁷ D Dorian scale; mode ii, key of C**

24 **Fm⁷ F Dorian scale; mode ii, key of E \flat**

25 **E \flat m⁷ E \flat Dorian scale; mode ii, key of D \flat**

26 **C \sharp m⁷ C \sharp Dorian scale; mode ii, key of B**

enharmonic equivalent of D \flat Dorian

Chapter 7- Additional Chord Tones

David M. Shere

C major scale- parent scale; mode I
 (Also known as "C Ionian mode;" mother of all Western scales)



- a. In order to further our understanding of **harmonic analysis**, we must better develop our understanding of
1. **Chord construction;**
 2. Deriving scales from individual **chord tones**.

b. All **harmonic analysis** assumes the function of every note in the **chromatic scale** in relation to the **Major scale**.

1. The following diagram shows how all 12 notes in the **chromatic scale** function against the key of **C major**, showing:

- 1.1 **Natural** scale tones (scale tones that are unchanged from the parent scale);
- 1.2 **flat** scale tones (scale tones that are lowered from the parent scale);
- 1.3 **sharp** scale tones (scale tones that are raised from the parent scale).

2 Key of C

2. **Flat** and **sharp** scale tones in the above diagram refer to specific **chord tones** that may be **added to** or **changed** within a chord. These notes must also be **added to** or **changed** within a corresponding mode, in order to adapt the mode for soloing against more complex chords.

2.1 The notes labelled (2,4) are known as **suspensions**. ((9,11) are also sometimes referred to as suspensions.)

2.1.1 The abbreviation **sus** means to use one of these notes in place of the **3rd** of a chord.

2.1.2 The abbreviation **add** means to add these notes to a chord, keeping the **3rd**.

2.2 The notes labelled (9,11,#11,13,b13) are known as **extensions**.

2.3 The notes labelled (b9,#9,b5,#5) are known as **alterations**.

2.4 The notes labelled (6,b6) are typically used in place of the **7th** of a chord.

The following pages carry the previous diagram through the remaining 11 keys.

Flat and **sharp** notes may also be spelled as **natural** (\natural).

Key of D \flat

4

MAJOR

R 2 3 4 5 6 7
9 11 13

Flat

MINOR

\flat 9 \flat 3 \flat 5 \flat 6 \flat 7
 \flat 13

Sharp

\sharp 9 \sharp 11 \sharp 5 \sharp 6
 \sharp 13

Key of D

5

MAJOR

R 2 3 4 5 6 7
9 11 13

Flat

MINOR

\flat 9 \flat 3 \flat 5 \flat 6 \flat 7
 \flat 13

Sharp

\sharp 9 \sharp 11 \sharp 5 \sharp 6
 \sharp 13

Key of E \flat

6

MAJOR

R 2 3 4 5 6 7
9 11 13

Flat

MINOR

\flat 9 \flat 3 \flat 5 \flat 6 \flat 7
 \flat 13

Sharp

\sharp 9 \sharp 11 \sharp 5 \sharp 6
 \sharp 13

Key of E

7

R 2 3 4 5 6 7

Flat 9 11 13

Sharp 9 11 13

Key of F

8

R 2 3 4 5 6 7

Flat 9 11 13

Sharp 9 11 13

Key of F#

9

R 2 3 4 5 6 7

Flat 9 11 13

Sharp 9 11 13

Key of G

10

R 2 3 4 5 6 7
9 11 13

Flat b9 b3 b5 b6 b7
b13

Sharp #9 #11 #5 #6 #13

Key of Ab

11

R 2 3 4 5 6 7
9 11 13

Flat b9 b3 b5 b6 b7
b13

Sharp #9 #11 #5 #6 #13

Key of A

12

R 2 3 4 5 6 7
9 11 13

Flat b9 b3 b5 b6 b7
b13

Sharp #9 #11 #5 #6 #13

Key of B \flat

13

MAJOR

R 2 3 4 5 6 7

9 11 13

Flat

MINOR

b9 b3 b5 b6 b7

b13

Sharp

#9 #11 #5 #6 #13

Key of B

14

MAJOR

R 2 3 4 5 6 7

9 11 13

Flat

MINOR

b9 b3 b5 b6 b7

b13

Sharp

#9 #11 #5 #6 #13

Chapter 8- Basic Chord Construction

a. In the same manner that modes can be studied in both their **relative** and **parallel** contexts, chords may also be studied in both **relative** and **parallel** contexts.

1. We have seen that every **major scale** produces the following **naturally occurring progression**, **relative** to each major key:

[I-ii-iii-IV-V-vi-vii]

2. In this chapter, we are studying every **triad** and **7th chord** in their **parallel** contexts, as they are constructed against a single root.

Key of C

TRIADS

	C	Cm	C ^o	C ⁺	C(sus4)	C(sus2)
	M	m	d	A		

	Major	minor	diminished	Augmented	Suspended4th	Suspended2nd
	5	5	b5	#5	5	5
	3	b3	b3	3	4	2
	R	R	R	R	R	R

7th CHORDS

2	C ^Δ 7	C ⁷	Cm ⁷	C ^o 7	C ^o 7
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	Major7th	Dominant7th	Minor7th	Half-diminished7th	Diminished7th
	7	b7	b7	b7	b7
	5	5	5	b5	b5
	3	3	b3	b3	b3
	R	R	R	R	R

ALTERED 7th CHORDS

3	Cm(maj7)	Cmaj7(#5)	Cmaj7(b5)	C ^o maj7	C7(#5)	C7(b5)
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	Minor-major7th	Major7th(#5)	Major7th(b5)	Diminished-Maj7th	Dominant7th(#5)	Dominant7th(b5)
	7	7	7	7	b7	b7
	5	#5	b5	b5	#5	b5
	b3	3	3	b3	3	3
	R	R	R	R	R	R

Per Chapter 3:

5.3 **Chord tones** and **passing tones** within a scale are often referred to as **inside notes**.

Per Chapter 3:

6. An **outside note** is any note that is not a part of the **chord** or its corresponding **mode**.

b. An **inside note** is a melody note that corresponds directly to any one of the notes in an underlying chord.

1. In order to play the **inside notes** of any given chord, we must know what notes any given chord symbol on a chart indicates.

1.1 **7** = the **7th** of a chord. A 7th may be **natural, flat, or double-flat**.

1.2 **5** = the **5th** of a chord. A 5th may be **natural, altered sharp, or altered flat**.

1.3 **3** = the **3rd** of a chord. A 3rd may be **Major** or **minor**.

1.4 **R** = the **root** of a chord. The root of a chord indicates the **scale** or **mode** the chord is based on.

1.5 **4** = the **4th** of a chord. A 4th may be **added** or **suspended**.

Suspended means "in place of the 3rd of a chord."

1.5 **2** = the **2nd** of a chord. A 2nd may be **added** or **suspended**.

Per Chapter 7:

b. All **harmonic analysis** assumes the function of every note in the **chromatic scale** in relation to the **Major scale**.

2. **Chord tones** are analyzed respective to their position within the **major scale** of the **root** of the **chord**.

2.1 The **major scale** is the assumed underlying structure of all **harmonic analysis**.

2.2 The name of each chord type is partly evolutionary, and partly based on logic.

2.2.1 The terms "**Major**" and "**minor**," for instance, mean "**large**" and "**small**", and are used to distinguish between the **3rd** note of a **major scale** (four half-steps from the root), and the **lowered** or **flatted 3rd** of a **minor scale** (three half-steps from the root).

2.2.2 There are etymological, mathematical, and scientific reasons behind all musical terms, not all of which are readily apparent on the surface, and some of which require a study of acoustic physics to determine their origins.

2.2.3 The best strategy for understanding the differences between chords types is not to over-analyze the specific terminology, but rather to simply commit each chord type and its corresponding note values to memory, as you would a vocabulary list. The terminology merely serves to mark the difference between one chord type and the next.

The following pages show all **triads, 7th chords, and altered 7th chords** in the remaining 11 keys.

Key of D \flat

TRIADS

5 D \flat D \flat m D \flat $^{\circ}$ D \flat $^{+}$ D \flat (sus4) D \flat (sus2)

 M m d A

7th CHORDS

6 D \flat $^{\Delta}7$ D \flat 7 C \sharp m7 C \sharp $^{\circ}7$ C \sharp $^{\circ}7$

ALTERED 7th CHORDS

7 C \sharp m(maj7) D \flat maj7(\sharp 5) D \flat maj7(b5) C \sharp omaj7 D \flat 7(\sharp 5) D \flat 7(b5)

Key of D

TRIADS

8 D Dm D $^{\circ}$ D $^{+}$ D(sus4) D(sus2)

 M m d A

7th CHORDS

9 D $^{\Delta}7$ D7 Dm7 D $^{\circ}7$ D $^{\circ}7$

ALTERED 7th CHORDS

10 Dm(maj7) Dmaj7(\sharp 5) Dmaj7(b5) D $^{\circ}$ maj7 D7(\sharp 5) D7(b5)

Key of E \flat

TRIADS

11 E \flat E \flat m E \flat \circ E \flat ⁺ E \flat (sus4) E \flat (sus2)
 M m d A

7th CHORDS

12 E \flat Δ 7 E \flat 7 E \flat m7 E \flat \emptyset 7 E \flat \circ 7

ALTERED 7th CHORDS

13 E \flat m(maj7) E \flat maj7(#5) E \flat maj7(b5) E \flat \circ maj7 E \flat 7(#5) E \flat 7(b5)

Key of E

TRIADS

14 E E \flat m E \circ E \flat ⁺ E(sus4) E(sus2)
 M m d A

7th CHORDS

15 E Δ 7 E7 E \flat m7 E \emptyset 7 E \circ 7

ALTERED 7th CHORDS

16 E \flat m(maj7) E \flat maj7(#5) E \flat maj7(b5) E \circ maj7 E7(#5) E7(b5)

Key of F

TRIADS

17 F Fm F° F+ F(sus4) F(sus2)
 M m d A

7th CHORDS

18 FΔ7 F7 Fm7 Fø7 F°7

ALTERED 7th CHORDS

19 Fm(maj7) Fmaj7(#5) Fmaj7(b5) Fømaj7 F7(#5) F7(b5)

Key of Gb

TRIADS

20 Gb F#m F#° Gb+ Gb(sus4) Gb(sus2)
 M m d A

7th CHORDS

21 GbΔ7 Gb7 F#m7 F#ø7 F#°7

ALTERED 7th CHORDS

22 F#m(maj7) Gbmaj7(#5) Gbmaj7(b5) F#ømaj7 Gb7(#5) Gb7(b5)

Key of G

TRIADS

23 G Gm G^o G⁺ G(sus4) G(sus2)

 M m d A

7th CHORDS

24 G^Δ7 G7 Gm7 G^ø7 G^o7

ALTERED 7th CHORDS

25 Gm(maj7) Gmaj7(#5) Gmaj7(b5) G^omaj7 G7(#5) G7(b5)

Key of A^b

TRIADS

26 A^b A^bm A^b^o A^b⁺ A^b(sus4) A^b(sus2)

 M m d A

7th CHORDS

27 A^bΔ7 A^b7 G[#]m7 G[#]ø7 G[#]o7

ALTERED 7th CHORDS

28 A^bm(maj7) A^bmaj7(#5) A^bmaj7(b5) G[#]o:maj7 A^b7(#5) A^b7(b5)

Key of A

TRIADS

29

A M Am m A^o d A⁺ A A(sus4) A(sus2)

7th CHORDS

30

A^Δ7 A⁷ Am⁷ A^ø7 A^o7

ALTERED 7th CHORDS

31

Am(maj7) Amaj7(#5) Amaj7(b5) A^omaj7 A7(#5) A7(b5)

Key of B^b

TRIADS

32

B^b M B^bm m B^b^o d B^b⁺ A B^b(sus4) B^b(sus2)

7th CHORDS

33

B^bΔ⁷ B^b7 B^bm⁷ B^bø⁷ B^b^o7

ALTERED 7th CHORDS

34

B^bm(maj7) B^bmaj7(#5) B^bmaj7(b5) B^b^omaj7 B^b7(#5) B^b7(b5)

Key of B

TRIADS

35

B	Bm	B ^o	B ⁺	B(sus4)	B(sus2)
M	m	d	A		

7th CHORDS

36

B ^Δ 7	B ⁷	Bm ⁷	B ^ø 7	B ^o 7
------------------	----------------	-----------------	------------------	------------------

ALTERED 7th CHORDS

37

Bm(maj7)	Bmaj7(#5)	Bmaj7(b5)	B ^o maj7	B7(#5)	B7(b5)
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Quarter

2 Eighth

3 Eighth triplet

4 Quarter + Eighth triplet

5 "Swing" Eighth

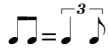
a. In jazz, the most basic unit of rhythm is the **swing 8th note**.

1. **Swing eighth note**- an eighth note written as a standard "straight" eighth note, but with an implied **triplet feel**.

1.1 **Swing eighth notes** are typically written as **straight 8th notes** in order to simplify the written notation of a jazz chart.

1.2 Play measure 5 above as if it were written like measure 4 and you will have achieved **swing eighth notes**.

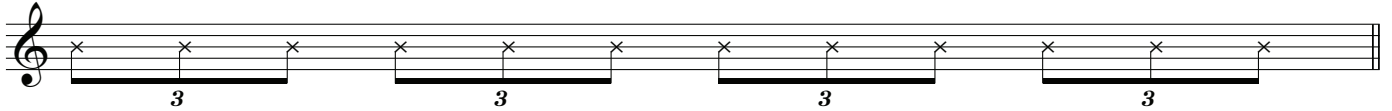
2. "True" swing eighths are not quite implied triplets, and not quite straight eighth notes either. "True" swing eighths reside rhythmically somewhere in between a triplet and a straight eighth. The closer to a triplet you are, the "harder" you are swinging; the closer to a straight eighth you are, the "smoother" or "cooler" your swing becomes.



"Swing" Eighth



7 Eighth triplet



b. In jazz rhythm, "swing" eighth notes and eighth triplets both share an implied triplet pulse (although "swing" eighths may be played "smoother" than a literal triplet).

When we subdivide the beat into smaller denominations such as sixteenth notes, we typically revert to an implied straight eighth note pulse.

c. The easiest way to gain an understanding of the relationship between

1. "straight" eighth notes,
2. "swing" eighth notes,
3. eighth note triplets, and
4. sixteenth notes

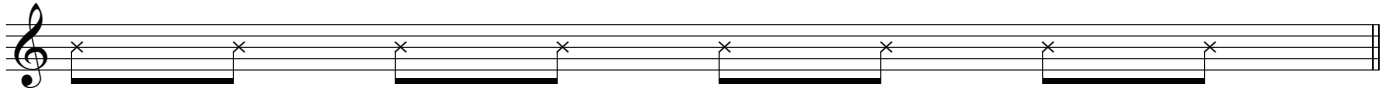
is to listen to as many professional jazz performances as possible.

d. Jazz musicians such as

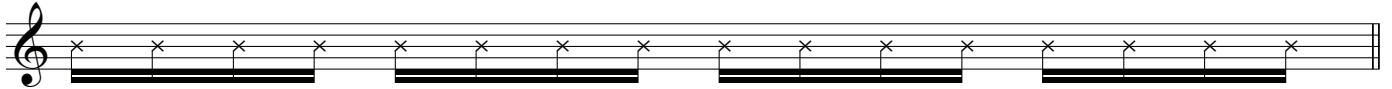
1. John Coltrane,
2. "Cannonball" Adderly,
3. Joe Pass,
4. Bill Evans,
5. Miles Davis,
6. Pat Metheny,
7. Charlie Parker,

and many others are masters of transitioning between different rhythmic groups, and playing against multiple implied rhythmic pulses.

8 "Straight" Eighth (no implied triplet)

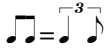


9 "Straight" Sixteenth (no implied triplet)



e. Sixteenth notes are typically brought into use for slower-tempo and mid-tempo jazz standards, in order to lend greater rhythmic interest and variety to melodic lines, and allow for greater melodic variety within a smaller rhythmic space. Using sixteenth notes takes a great deal of practice work and applied technical skill.

The best way to practice transitioning between eighths, triplets, and sixteenths is to devise scale exercises that make use of these groups.



10 **"Swing" Eighth**



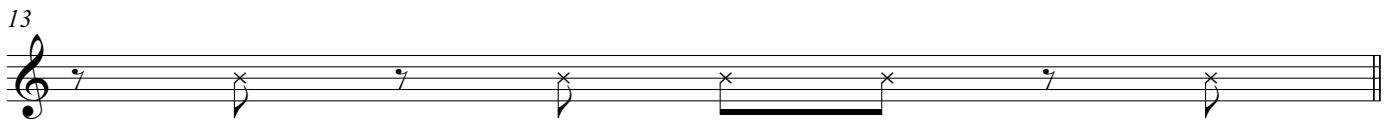
11 **"Straight" Eighth (no implied triplet)**



f. **Syncoption** is a type of rhythmic phrasing in which the accents of a melody are placed on the **weak beats** of rhythmic groups. This is typically accomplished through the use of **rests**.

1. A **weak beat** is any secondary or even beat: 2, 4, "&," etc.
2. A **strong beat** is a primary or odd beat: 1, 3, 5, etc.

For the purposes of this chapter we are looking only at **eighth note** syncopations, but syncopation can take place within any rhythmic denomination (half, quarter, eighth, sixteenth, or 32nd notes; or any other type of grouping).

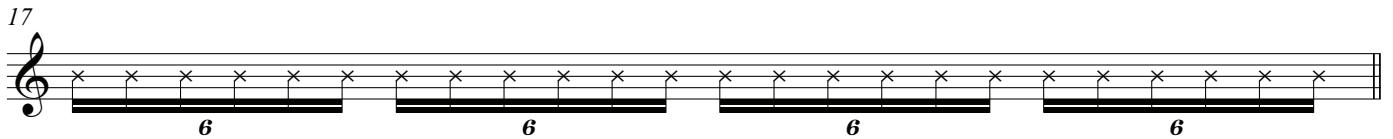


TUPLETS

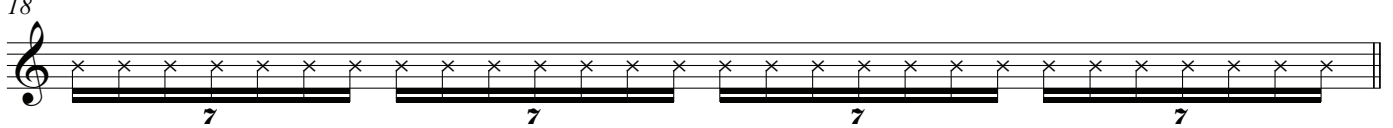
16 Quintuplet



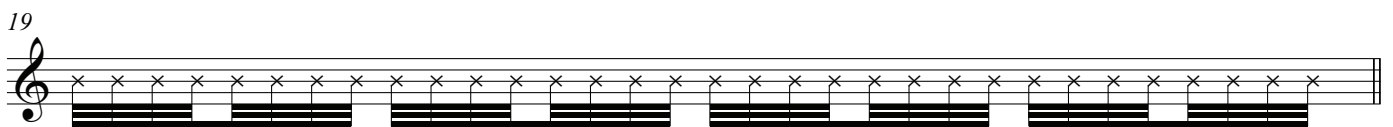
17 Sextuplet



18 Septuplet



19 32nd note



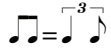
g. Slower or mid-tempo **rhythmic pulses** can be further subdivided into increments smaller than **16th notes**. This page shows four examples of ways a rhythmic pulse can be further subdivided.

1. Groupings which are not exponents of "2" (2, 4, 8, 16, 32, etc.) are called **tuplets**. This page contains three examples of **tuplet** groupings.

2. **Tuplets** can be used to create even greater rhythmic interest and melodic variety, and are often used to obscure the rhythmic pulse or play "outside" of the rhythm.

h. This page shows several exercises which are designed to help you practice varying rhythmic patterns.

"Straight" Eighth (no implied triplet)



23 **"Swing" Eighth**



Eighth triplet



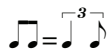
"Straight" Sixteenth (no implied triplet)



"Swing" Eighth + Eighth triplet



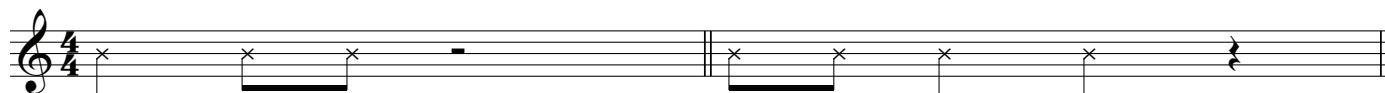
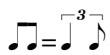
35 **"Swing" Eighths + Sixteenths**



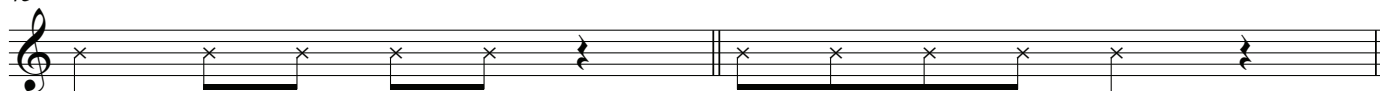
38 **"Swing" Eighths + Triplets + Sixteenths**



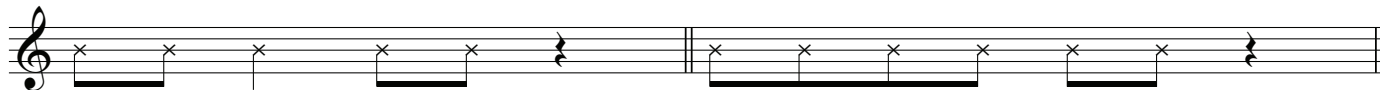
j. This section consists of a number of short phrase studies to once again focus on "swing" rhythm.



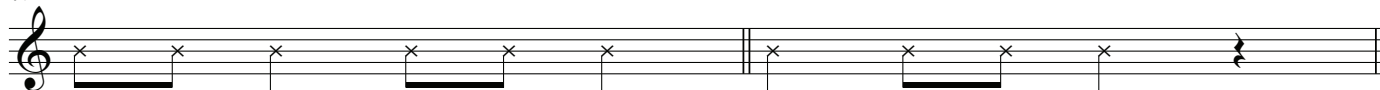
43



45



47



49



51



53

Musical staff 53: Treble clef, two measures. Measure 1: quarter notes G4, A4, B4, C5, quarter rest, eighth note D5, quarter rest. Measure 2: quarter notes G4, A4, B4, C5, quarter rest, eighth note D5, quarter rest.

55

Musical staff 55: Treble clef, two measures. Measure 1: quarter notes G4, A4, B4, C5, quarter rest, eighth note D5, quarter rest. Measure 2: quarter notes G4, A4, B4, C5, quarter rest, eighth note D5, quarter rest.

57

Musical staff 57: Treble clef, two measures. Measure 1: quarter notes G4, A4, B4, C5, quarter rest, eighth note D5, quarter rest. Measure 2: quarter notes G4, A4, B4, C5, quarter rest, eighth note D5, quarter rest.

59

Musical staff 59: Treble clef, two measures. Measure 1: quarter notes G4, A4, B4, C5, quarter rest, eighth note D5, quarter rest. Measure 2: quarter notes G4, A4, B4, C5, quarter rest, eighth note D5, quarter rest.

61

Musical staff 61: Treble clef, two measures. Measure 1: quarter notes G4, A4, B4, C5, quarter rest, eighth note D5, quarter rest. Measure 2: quarter notes G4, A4, B4, C5, quarter rest, eighth note D5, quarter rest.

63

Musical staff 63: Treble clef, two measures. Measure 1: quarter notes G4, A4, B4, C5, quarter rest, eighth note D5, quarter rest. Measure 2: quarter notes G4, A4, B4, C5, quarter rest, eighth note D5, quarter rest.

Chapter 10- Practice Strategies

PRACTICE TIPS

I. Keep a detailed practice journal.

- a. Write down everything that you practice each day.
- b. At the end of each practice session, make note of the following details:
 1. Which items are progressing well;
 2. Which items need extra work and focus;
 3. Which exercises or music pieces you didn't get to in this session. Schedule these items for a specific future session, preferably the next one.
- c. Sample journal entry:

“Practiced 2-octave C major scale 4x

Practiced all modes in C major 2x each

Practiced all 7th arpeggios in C major 2x each

Practiced “Maiden Voyage” and “Summertime” with backing tracks

Next session: Practice 2-octave Db-major scale

Practice all modes and 7th arpeggios in Db major

Practice “Solar” by Miles Davis”

II. Build a core warm-up routine that takes 5-10 minutes.

- a. Pick 2-3 specific, effective exercises that you know can be relied upon to prepare you for a performance, and make these part of your daily routine.
- b. For example: As a guitarist, my core warm-up consists of the chromatic scale, A Ionian and B Dorian, and 3-5 minutes of free-associating random exercises from my journals. My regular practice routine is much more elaborate than this of course, but in a pinch at a gig, or before a performance, this is often all I have time for.

- III. **Rotate through your exercises on a long-term schedule.**
 - a. As you accumulate more and more melodic ideas and exercises, you will find that it's not possible to practice every single idea and exercise every day. Build a schedule that allows you to rotate through your practice materials on a weekly, monthly or other basis.
 - b. Prioritize your exercises according to order of importance.
 - c. Always include your core warm-up in every practice session.
- IV. **Record yourself:**
 - a. Practicing exercises;
 - b. Playing over changes;
 - c. Free-associating melodies and patterns;
 - d. Playing at rehearsals and gigs.
- V. **Keep manuscript paper handy and write down all your exercises and melodic ideas.**
 - a. Write down any new exercises, melodies, or patterns that you come up with during a practice or "jam" session. The more you get into a habit of doing this, the faster you will come up with new ideas and the easier it will be to commit previous ideas to memory.
 - b. Keep records of all exercises you have borrowed from other sources (published, transcribed) that you use routinely.
 - c. Using shorthand is fine; the goal is to put your ideas on paper so that you can clear your short-term memory bank.
 - d. Refer to your recordings and transcribe any ideas you may have played that sound "fresh" and interesting, even if you are convinced that you'll remember them easily. You will find that writing these ideas down allows you to develop them later, sometimes in directions you can't anticipate.
 - e. Try composing melodic ideas, patterns, and exercises on paper before playing them. You will find that this helps you guide your improvisational thought process into more disciplined channels where you have much greater control during actual performances.
- VI. **Listen to recordings of the songs you are working on.**
 - a. Make a repertoire list.
 - b. Steal licks from your favorite artists and transcribe them.

Chapter 11- Exercises

All major diatonic modes

David M. Shere

C major



Practice each set of modes both forward and backward.



9 D \flat major



17 D major



25 E \flat major



33 **E major**41 **F major**49 **Gb major**57 **G major**

104 All diatonic triads

C major



101



105 D \flat major



109



113 D major



117



121 E \flat major



125



129 E major



133



137 F major



141



145 Gb major



149



153 G major



157



All diatonic seventh arpeggios

C major

Musical notation for C major arpeggio, measures 157-196. The notation is in treble clef, 4/4 time, and consists of four measures of eighth-note arpeggios. The notes are C4, E4, G4, B4, A4, F4, E4, D4 in the first measure; C4, E4, G4, B4, A4, F4, E4, D4 in the second measure; C4, E4, G4, B4, A4, F4, E4, D4 in the third measure; and C4, E4, G4, B4, A4, F4, E4, D4 in the fourth measure.

197

Musical notation for C major arpeggio, measures 197-200. The notation is in treble clef, 4/4 time, and consists of four measures of eighth-note arpeggios. The notes are C4, E4, G4, B4, A4, F4, E4, D4 in the first measure; C4, E4, G4, B4, A4, F4, E4, D4 in the second measure; C4, E4, G4, B4, A4, F4, E4, D4 in the third measure; and C4, E4, G4, B4, A4, F4, E4, D4 in the fourth measure. The key signature changes to B-flat major at the end of the fourth measure.

201 D \flat major

Musical notation for D \flat major arpeggio, measures 201-204. The notation is in treble clef, 4/4 time, and consists of four measures of eighth-note arpeggios. The notes are D \flat 4, F \flat 4, A \flat 4, B \flat 4, A \flat 4, F \flat 4, E \flat 4, D \flat 4 in the first measure; D \flat 4, F \flat 4, A \flat 4, B \flat 4, A \flat 4, F \flat 4, E \flat 4, D \flat 4 in the second measure; D \flat 4, F \flat 4, A \flat 4, B \flat 4, A \flat 4, F \flat 4, E \flat 4, D \flat 4 in the third measure; and D \flat 4, F \flat 4, A \flat 4, B \flat 4, A \flat 4, F \flat 4, E \flat 4, D \flat 4 in the fourth measure.

205

Musical notation for D \flat major arpeggio, measures 205-208. The notation is in treble clef, 4/4 time, and consists of four measures of eighth-note arpeggios. The notes are D \flat 4, F \flat 4, A \flat 4, B \flat 4, A \flat 4, F \flat 4, E \flat 4, D \flat 4 in the first measure; D \flat 4, F \flat 4, A \flat 4, B \flat 4, A \flat 4, F \flat 4, E \flat 4, D \flat 4 in the second measure; D \flat 4, F \flat 4, A \flat 4, B \flat 4, A \flat 4, F \flat 4, E \flat 4, D \flat 4 in the third measure; and D \flat 4, F \flat 4, A \flat 4, B \flat 4, A \flat 4, F \flat 4, E \flat 4, D \flat 4 in the fourth measure. The key signature changes to D major at the end of the fourth measure.

209 D major

Musical notation for D major arpeggio, measures 209-212. The notation is in treble clef, 4/4 time, and consists of four measures of eighth-note arpeggios. The notes are D4, F#4, A4, B4, A4, F#4, E4, D4 in the first measure; D4, F#4, A4, B4, A4, F#4, E4, D4 in the second measure; D4, F#4, A4, B4, A4, F#4, E4, D4 in the third measure; and D4, F#4, A4, B4, A4, F#4, E4, D4 in the fourth measure.

213

Musical notation for D major arpeggio, measures 213-216. The notation is in treble clef, 4/4 time, and consists of four measures of eighth-note arpeggios. The notes are D4, F#4, A4, B4, A4, F#4, E4, D4 in the first measure; D4, F#4, A4, B4, A4, F#4, E4, D4 in the second measure; D4, F#4, A4, B4, A4, F#4, E4, D4 in the third measure; and D4, F#4, A4, B4, A4, F#4, E4, D4 in the fourth measure. The key signature changes to E-flat major at the end of the fourth measure.

217 E \flat major

Musical notation for E \flat major arpeggio, measures 217-220. The notation is in treble clef, 4/4 time, and consists of four measures of eighth-note arpeggios. The notes are E \flat 4, G \flat 4, A \flat 4, B \flat 4, A \flat 4, G \flat 4, F \flat 4, E \flat 4 in the first measure; E \flat 4, G \flat 4, A \flat 4, B \flat 4, A \flat 4, G \flat 4, F \flat 4, E \flat 4 in the second measure; E \flat 4, G \flat 4, A \flat 4, B \flat 4, A \flat 4, G \flat 4, F \flat 4, E \flat 4 in the third measure; and E \flat 4, G \flat 4, A \flat 4, B \flat 4, A \flat 4, G \flat 4, F \flat 4, E \flat 4 in the fourth measure.

221

Musical notation for E \flat major arpeggio, measures 221-224. The notation is in treble clef, 4/4 time, and consists of four measures of eighth-note arpeggios. The notes are E \flat 4, G \flat 4, A \flat 4, B \flat 4, A \flat 4, G \flat 4, F \flat 4, E \flat 4 in the first measure; E \flat 4, G \flat 4, A \flat 4, B \flat 4, A \flat 4, G \flat 4, F \flat 4, E \flat 4 in the second measure; E \flat 4, G \flat 4, A \flat 4, B \flat 4, A \flat 4, G \flat 4, F \flat 4, E \flat 4 in the third measure; and E \flat 4, G \flat 4, A \flat 4, B \flat 4, A \flat 4, G \flat 4, F \flat 4, E \flat 4 in the fourth measure. The key signature changes to E major at the end of the fourth measure.

225 **E major**

229

233 **F major**

237

241 **Gb major**

245

249 **G major**

253



257 **A^b major**

Musical staff for A^b major, measures 257-260. The staff shows a sequence of eighth notes in a descending scale: G^b, F^b, E^b, D^b, C^b, B^b, A^b, G^b.

Musical staff for A^b major, measures 261-264. The staff shows a sequence of eighth notes in a descending scale: F^b, E^b, D^b, C^b, B^b, A^b, G^b, F^b. The piece concludes with a double bar line and a key signature change to two sharps (D major).

265 **A major**

Musical staff for A major, measures 265-268. The staff shows a sequence of eighth notes in a descending scale: G, F, E, D, C, B, A, G.

Musical staff for A major, measures 269-272. The staff shows a sequence of eighth notes in a descending scale: F, E, D, C, B, A, G, F. The piece concludes with a double bar line and a key signature change to one flat (D^b major).

273 **B^b major**

Musical staff for B^b major, measures 273-276. The staff shows a sequence of eighth notes in a descending scale: A, G, F, E, D, C, B, A.

Musical staff for B^b major, measures 277-280. The staff shows a sequence of eighth notes in a descending scale: G, F, E, D, C, B, A, G. The piece concludes with a double bar line and a key signature change to three sharps (D major).

281 **B major**

Musical staff for B major, measures 281-284. The staff shows a sequence of eighth notes in a descending scale: A, G, F, E, D, C, B, A.

Musical staff for B major, measures 285-288. The staff shows a sequence of eighth notes in a descending scale: G, F, E, D, C, B, A, G. The piece concludes with a double bar line.

110 C major scale- parent scale; mode I
 (Also known as "C Ionian mode;" mother of all Western scales)

[R 2 3 4 5 6 7]
 SCALE DEGREES

C major

2 1) 2 octave major scale, ascending/descending

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
 NUMBER VALUES (similar to scale degrees)

4

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

2) SKIPPED 3rds
 starting on 1

6

1 3 5 7 9 11 13 15 17 15 13 11 9 7 5 3

3) SKIPPED 3rds
 starting on 2

8

2 4 6 8 10 12 14 16 18 16 14 12 10 8 6 4

IN ORDER TO MAKE THE MOST EFFICIENT USE OF YOUR PRACTICE TIME,
 you should focus on a few key things that will maximize the development of your technique for the
 minimum amount of time spent.

Practicing all 12 major scales in 2 octaves, in skipped 3rds starting on the first note of the scale,
 and in skipped 3rds starting on the second note of the scale, is one possible way to
 maximize your practice time.

By doing this, you are basically practicing all your modes and all your 7th arpeggios
 in every key using the fewest possible number of notes.

D \flat major

10 1) 2 octave major scale, ascending/descending

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

2) SKIPPED 3rds starting on 1

1 3 5 7 9 11 13 15 17 15 13 11 9 7 5 3

3) SKIPPED 3rds starting on 2

2 4 6 8 10 12 14 16 18 16 14 12 10 8 6 4

D major

18 1) 2 octave major scale, ascending/descending

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

2) SKIPPED 3rds starting on 1

1 3 5 7 9 11 13 15 17 15 13 11 9 7 5 3

3) SKIPPED 3rds starting on 2

2 4 6 8 10 12 14 16 18 16 14 12 10 8 6 4

E \flat major

26 1) 2 octave major scale, ascending/descending

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

2) SKIPPED 3rds
starting on 1

1 3 5 7 9 11 13 15 17 15 13 11 9 7 5 3

3) SKIPPED 3rds
starting on 2

2 4 6 8 10 12 14 16 18 16 14 12 10 8 6 4

E major

34 1) 2 octave major scale, ascending/descending

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

2) SKIPPED 3rds
starting on 1

1 3 5 7 9 11 13 15 17 15 13 11 9 7 5 3

3) SKIPPED 3rds
starting on 2

2 4 6 8 10 12 14 16 18 16 14 12 10 8 6 4

F major

42 1) 2 octave major scale, ascending/descending

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

2) SKIPPED 3rds starting on 1

1 3 5 7 9 11 13 15 17 15 13 11 9 7 5 3

3) SKIPPED 3rds starting on 2

2 4 6 8 10 12 14 16 18 16 14 12 10 8 6 4

G \flat major

50 1) 2 octave major scale, ascending/descending

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

2) SKIPPED 3rds starting on 1

1 3 5 7 9 11 13 15 17 15 13 11 9 7 5 3

3) SKIPPED 3rds starting on 2

2 4 6 8 10 12 14 16 18 16 14 12 10 8 6 4

G major

58 1) 2 octave major scale, ascending/descending

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

62 2) SKIPPED 3rds starting on 1

1 3 5 7 9 11 13 15 17 15 13 11 9 7 5 3

64 3) SKIPPED 3rds starting on 2

2 4 6 8 10 12 14 16 18 16 14 12 10 8 6 4

A \flat major

66 1) 2 octave major scale, ascending/descending

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

70 2) SKIPPED 3rds starting on 1

1 3 5 7 9 11 13 15 17 15 13 11 9 7 5 3

72 3) SKIPPED 3rds starting on 2

2 4 6 8 10 12 14 16 18 16 14 12 10 8 6 4

A major

74 1) 2 octave major scale, ascending/descending

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

2) SKIPPED 3rds starting on 1

1 3 5 7 9 11 13 15 17 15 13 11 9 7 5 3

3) SKIPPED 3rds starting on 2

2 4 6 8 10 12 14 16 18 16 14 12 10 8 6 4

Bb major

82 1) 2 octave major scale, ascending/descending

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

2) SKIPPED 3rds starting on 1

1 3 5 7 9 11 13 15 17 15 13 11 9 7 5 3

3) SKIPPED 3rds starting on 2

2 4 6 8 10 12 14 16 18 16 14 12 10 8 6 4

B major

90 1) 2 octave major scale, ascending/descending

Musical notation for exercise 1, ascending scale. The staff shows a two-octave major scale starting on B4. The notes are: B4, C#4, D4, E4, F#4, G4, A4, B4, B5, C#5, D5, E5, F#5, G5, A5, B5. Fingering numbers 1 through 16 are written below the notes.

Musical notation for exercise 1, descending scale. The staff shows a two-octave major scale descending from B5. The notes are: B5, A5, G5, F#5, E5, D5, C#5, B5, B4, A4, G4, F#4, E4, D4, C#4, B4. Fingering numbers 17 through 2 are written below the notes.

2) SKIPPED 3rds
starting on 1

Musical notation for exercise 2, SKIPPED 3rds starting on 1. The staff shows an ascending scale starting on B4: B4, C#4, D4, E4, F#4, G4, A4, B4, B5, C#5, D5, E5, F#5, G5, A5, B5. The descending scale starts on B5: B5, C#5, D5, E5, F#5, G5, A5, B5, B4, C#4, D4, E4, F#4, G4, A4, B4. Fingering numbers 1 through 3 are written below the notes.

3) SKIPPED 3rds
starting on 2

Musical notation for exercise 3, SKIPPED 3rds starting on 2. The staff shows an ascending scale starting on C#4: C#4, D4, E4, F#4, G4, A4, B4, C#4, C#5, D5, E5, F#5, G5, A5, B5, C#5. The descending scale starts on C#5: C#5, D5, E5, F#5, G5, A5, B5, C#5, C#4, D4, E4, F#4, G4, A4, B4, C#4. Fingering numbers 2 through 4 are written below the notes.

C^{Δ7} C Ionian scale; mode I



4 Cm⁷ C Dorian scale; mode ii, key of B \flat



7 Cm⁷ C Phrygian scale; mode iii, key of A \flat



10 C^{Δ7} C Lydian scale; mode IV, key of G



13 C⁷ C Mixolydian scale; mode V, key of F



16 Cm⁷ C Aeolian scale; mode vi ("Natural minor"), key of E \flat



19 C^{∅7} C Locrian scale; mode vii, key of D \flat



22 $D\flat\Delta^7$ $D\flat$ Ionian scale; mode I

25 $C\sharp m^7$ $C\sharp$ Dorian scale; mode ii, key of B

28 $C\sharp m^7$ $C\sharp$ Phrygian scale; mode iii, key of A

31 $D\flat\Delta^7$ $D\flat$ Lydian scale; mode IV, key of A-flat

34 $D\flat^7$ $D\flat$ Mixolydian scale; mode V, key of G-flat

37 $C\sharp m^7$ $C\sharp$ Aeolian scale; mode vi ("Natural minor"), key of E

40 $C\sharp\emptyset^7$ $C\sharp$ Locrian scale; mode vii, key of D

43 D^{Δ7} D Ionian scale; mode I

46 Dm⁷ D Dorian scale; mode ii, key of C

49 Dm⁷ D Phrygian scale; mode iii, key of Bb

52 D^{Δ7} D Lydian scale; mode IV, key of A

55 D⁷ D Mixolydian scale; mode V, key of G

58 Dm⁷ D Aeolian scale; mode vi ("Natural minor"), key of F

61 D^{ø7} D Locrian scale; mode vii, key of Eb

64 Eb Δ 7 Eb Ionian scale; mode I




67 Ebm7 Eb Dorian scale; mode ii, key of Db




70 D#m7 D# Phrygian scale; mode iii, key of B



73 Eb Δ 7 Eb Lydian scale; mode IV, key of Bb



76 Eb7 Eb Mixolydian scale; mode V, key of Ab



79 Ebm7 Eb Aeolian scale; mode vi ("Natural minor"), key of Gb



82 D#o7 D# Locrian scale; mode vii, key of E



85 E^{Δ7} E Ionian scale; mode I

88 Em⁷ E Dorian scale; mode ii, key of D

91 Em⁷ E Phrygian scale; mode iii, key of C

94 E^{Δ7} E Lydian scale; mode IV, key of B

97 E⁷ E Mixolydian scale; mode V, key of A

100 Em⁷ E Aeolian scale; mode vi ("Natural minor"), key of G

103 E^{∅7} E Locrian scale; mode vii, key of F

106 F Δ 7 F Ionian scale; mode I

109 Fm7 F Dorian scale; mode ii, key of Eb

112 Fm7 F Phrygian scale; mode iii, key of Db

115 F Δ 7 F Lydian scale; mode IV, key of C

118 F7 F Mixolydian scale; mode V, key of Bb

121 Fm7 F Aeolian scale; mode vi ("Natural minor"), key of Ab

124 F \emptyset 7 F Locrian scale; mode vii, key of Gb

127 G \flat Δ 7 G \flat Ionian scale; mode I



130 F \sharp m7 F \sharp Dorian scale; mode ii, key of E




133 F \sharp m7 F \sharp Phrygian scale; mode iii, key of D



136 G \flat Δ 7 G \flat Lydian scale; mode IV, key of D \flat




139 F \sharp 7 F \sharp Mixolydian scale; mode V, key of B



142 F \sharp m7 F \sharp Aeolian scale; mode vi ("Natural minor"), key of A



145 F \sharp \emptyset 7 F \sharp Locrian scale; mode vii, key of G



148 $G^{\Delta 7}$ **G Ionian scale; mode I**

151 Gm^7 **G Dorian scale; mode ii, key of F**

154 Gm^7 **G Phrygian scale; mode iii, key of Eb**

157 $G^{\Delta 7}$ **G Lydian scale; mode IV, key of D**

160 G^7 **G Mixolydian scale; mode V, key of C**

163 Gm^7 **G Aeolian scale; mode vi ("Natural minor"), key of Bb**

166 $G^{\circ 7}$ **G Locrian scale; mode vii, key of Ab**

190 A^{Δ7} A Ionian scale; mode I

193 Am⁷ A Dorian scale; mode ii, key of G

196 Am⁷ A Phrygian scale; mode iii, key of F

199 A^{Δ7} A Lydian scale; mode IV, key of E

202 A⁷ A Mixolydian scale; mode V, key of D

205 Am⁷ A Aeolian scale; mode vi ("Natural minor"), key of C

208 A^{ø7} A Locrian scale; mode vii, key of Bb

211 B \flat Δ 7 B \flat Ionian scale; mode I

214 Bbm7 B \flat Dorian scale; mode ii, key of A \flat

217 Bbm7 B \flat Phrygian scale; mode iii, key of G \flat

220 B \flat Δ 7 B \flat Lydian scale; mode IV, key of F

223 B \flat 7 B \flat Mixolydian scale; mode V, key of E \flat

226 Bbm7 B \flat Aeolian scale; mode vi ("Natural minor"), key of D \flat

229 A \sharp \emptyset 7 A \sharp Locrian scale; mode vii, key of B

232 **B^{Δ7} B Ionian scale; mode I**



235 **Bm⁷ B Dorian scale; mode ii, key of A**



238 **Bm⁷ B Phrygian scale; mode iii, key of G**



241 **Cb^{Δ7} Cb Lydian scale; mode IV, key of Gb**




244 **B⁷ B Mixolydian scale; mode V, key of E**



247 **Bm⁷ B Aeolian scale; mode vi ("Natural minor"), key of D**



250 **B^{ø7} B Locrian scale; mode vii, key of C**



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