

Tools For Improvisation

Part II

Minor scale modes and harmony

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TOOLS FOR IMPROVISATION: Part II

PREFACE

The following textbook is a continuation of instructional material on the subject of improvisation, drawn and heavily revised from class notes written for a workshop given from Fall of 2012 to Spring 2013 at **Music Center of the Northwest** in Seattle, WA.

This textbook and the previous 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.

Tools For Improvisation addresses major scale modes and harmony from a jazz perspective.

Tools For Improvisation: Part II addresses minor scale modes and harmony.

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

October 29, 2017

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Chapter 1- The Natural Minor Scale

Historically, there are three basic types of minor scales found in traditional Western music theory:

1. **Natural minor scale (Aeolian scale; mode vi)**
2. **Harmonic minor scale**
3. **Melodic minor scale**

The first of these scales, the **Natural minor**, is the 6th mode of the major scale. All of the information that applies to **major scale modes** continues to apply to this scale.

The **Natural minor scale** may also be viewed as an independent scale with independent **harmonic** and **modal** implications. The **Natural minor scale** may be studied theoretically in at least two **contexts**:

1. As a **mode** of the **major scale** ("Tools For Improvisation," book I, Ch. 1-4).
2. As an **independent scale** with its own **harmony** and **modes**.

Cm^7 **C Natural minor scale (Aeolian scale; mode vi), key of $E\flat$**

R 2 $b3$ 4 5 $b6$ $b7$ R
 C D $E\flat$ F G $A\flat$ $B\flat$ C

2 $E\flat\Delta^7$ **$E\flat$ Major scale (Ionian scale; mode I)**

$E\flat$ F G $A\flat$ $B\flat$ C D $E\flat$

The **C Natural minor scale** is made up of the following notes: [CDE \flat FGA \flat B \flat C]

Natural minor scale degrees are numbered [R2 $b3$ 45 $b6$ $b7$].

The **Natural minor scale** and its corresponding **Major scale**

(i.e. the **Major scale** which produces the **Natural minor scale** as **Aeolian mode**)

are known as **relative Major and minor**.

Example: $E\flat$ major and C Natural minor are **relative Major and minor** scales.

1. The third (3rd) note of the **Natural minor scale** is the first (1st) note of the **relative Major scale**.
2. The sixth (6th) note of the **Major scale** is the first (1st) note of the **relative Natural minor scale**.

The **Melodic minor** and **Harmonic minor scales** are not modes of the major scale.

They are independent scales with unique **interval structures**, based on alterations of the **Natural minor scale**.

We will study the **Melodic minor and Harmonic minor scales** in later chapters.

1. **E \flat Major** and **C Natural minor** can be said to be **relative Major and Natural minor scales**.
2. **C Major (Ionian)** and **C Natural minor** can be said to be **parallel Major and Natural minor scales**.

3.1 When a **natural** note is made **flat (b)**, it is said to be **lowered (↓)**.

3.2 When a **sharp** note is made **natural (♮)**, it is said to be **lowered (↓)**.

3.3 When a **natural** note is made **sharp (#)**, it is said to be **raised (↑)**

3.4 When a **flat** note is made **natural (♮)**, it is said to be **raised (↑)**.

4. Using **Ionian mode (the Major scale)** as our "default" scale, we can draw a qualitative comparison between **Ionian** and **Aeolian mode**.

3 $C^{\Delta 7}$ **C Major scale (Ionian scale; mode I)**

4 Cm^7 **C Natural minor scale (Aeolian scale; mode vi), key of E \flat**

C Major scale (Ionian mode) and **C Natural minor scale (Aeolian mode)** are known as **parallel Major and minor scales**.

1.1 **C Major (Ionian)** contains the notes **[E],[A]** and **[B]**.

1.2 **C Natural minor (Aeolian)** contains the notes **[E \flat],[A \flat]** and **[B \flat]**.

2. **C Natural minor** is equivalent to **C Major** with a

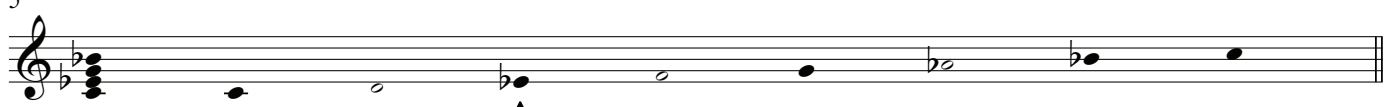
lowered (b)3,

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

3. The scale formula for **Natural minor (Aeolian)** is **[↓3,↓6,↓7]**.

4 Natural minor scales in all keys

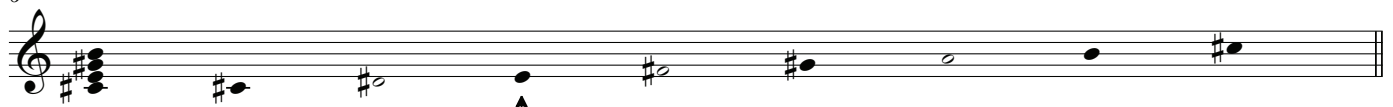
5 Cm⁷ C Natural minor scale (Aeolian scale; mode vi), key of E \flat



Relative major: E \flat

The musical notation shows the C natural minor scale in treble clef. The key signature has two flats (B \flat and E \flat). The scale notes are C, D, E \flat , F, G, A \flat , B \flat , and C. An upward-pointing arrow is positioned below the E \flat note, with the text "Relative major: E \flat " centered below the arrow.

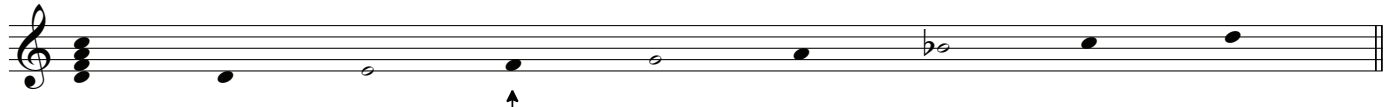
6 C \sharp m⁷ C \sharp Natural minor scale (Aeolian scale; mode vi), key of E



Relative major: E

The musical notation shows the C \sharp natural minor scale in treble clef. The key signature has two sharps (F \sharp and C \sharp). The scale notes are C \sharp , D \sharp , E, F \sharp , G \sharp , A, B, and C \sharp . An upward-pointing arrow is positioned below the E note, with the text "Relative major: E" centered below the arrow.


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



Relative major: F

The musical notation shows the D natural minor scale in treble clef. The key signature has one flat (B \flat). The scale notes are D, E, F, G, A, B \flat , C, and D. An upward-pointing arrow is positioned below the F note, with the text "Relative major: F" centered below the arrow.

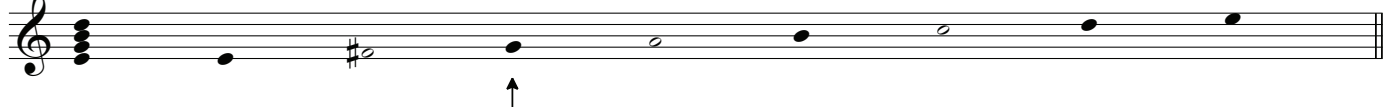
8 E \flat m⁷ E \flat Natural minor scale (Aeolian scale; mode vi), key of G \flat



Relative major: G \flat

The musical notation shows the E \flat natural minor scale in treble clef. The key signature has three flats (B \flat , E \flat , and A \flat). The scale notes are E \flat , F, G \flat , A \flat , B \flat , C, D, and E \flat . An upward-pointing arrow is positioned below the G \flat note, with the text "Relative major: G \flat " centered below the arrow.

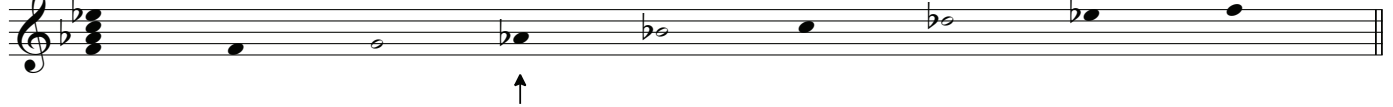
9 Em⁷ E Natural minor scale (Aeolian scale; mode vi), key of G



Relative major: G

The musical notation shows the E natural minor scale in treble clef. The key signature has one sharp (F \sharp). The scale notes are E, F, G, A, B, C, D, and E. An upward-pointing arrow is positioned below the G note, with the text "Relative major: G" centered below the arrow.

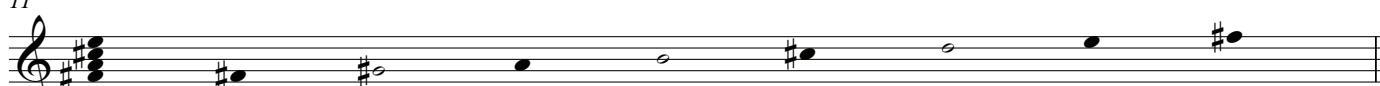
10 Fm⁷ F Natural minor scale (Aeolian scale; mode vi), key of A \flat



Relative major: A \flat

The musical notation shows the F natural minor scale in treble clef. The key signature has three flats (B \flat , E \flat , and A \flat). The scale notes are F, G, A \flat , B \flat , C, D, E \flat , and F. An upward-pointing arrow is positioned below the A \flat note, with the text "Relative major: A \flat " centered below the arrow.

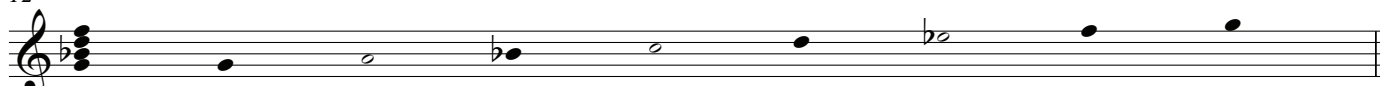
11 $F\#m^7$ **F# Natural minor scale (Aeolian scale; mode vi), key of A**



↑
Relative major: A

Detailed description: This block shows the F# Natural minor scale in treble clef. The key signature has two sharps (F# and C#). The scale notes are F#, G, A, B, C, D, E, F#. An upward-pointing arrow is positioned below the A note, with the text 'Relative major: A' below it.

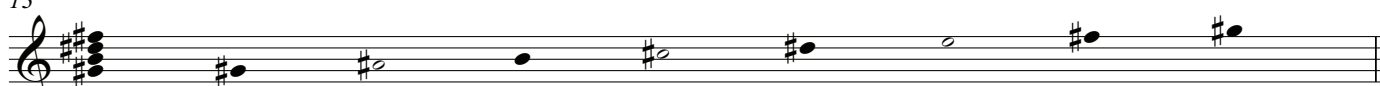
12 Gm^7 **G Natural minor scale (Aeolian scale; mode vi), key of Bb**



↑
Relative major: Bb

Detailed description: This block shows the G Natural minor scale in treble clef. The key signature has two flats (Bb and Eb). The scale notes are G, Ab, Bb, C, D, Eb, F, G. An upward-pointing arrow is positioned below the Bb note, with the text 'Relative major: Bb' below it.

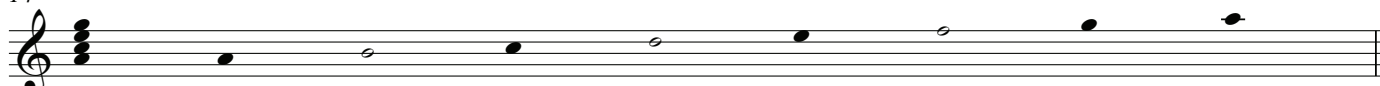
13 $G\#m^7$ **G# Natural minor scale (Aeolian scale; mode vi), key of B**



↑
Relative major: B

Detailed description: This block shows the G# Natural minor scale in treble clef. The key signature has three sharps (F#, C#, G#). The scale notes are G#, A, B, C, D, E, F#, G#. An upward-pointing arrow is positioned below the B note, with the text 'Relative major: B' below it.

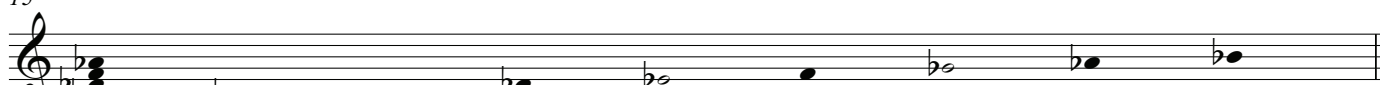
14 Am^7 **A Natural minor scale (Aeolian scale; mode vi), key of C**



↑
Relative major: C

Detailed description: This block shows the A Natural minor scale in treble clef. The key signature has no sharps or flats. The scale notes are A, B, C, D, E, F, G, A. An upward-pointing arrow is positioned below the C note, with the text 'Relative major: C' below it.

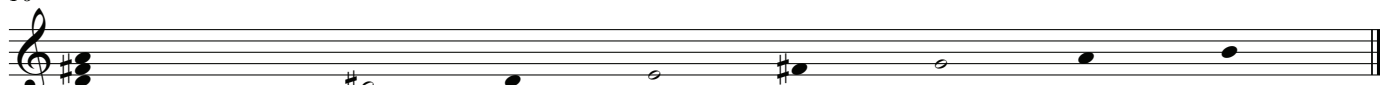
15 Bbm^7 **Bb Natural minor scale (Aeolian scale; mode vi), key of Db**



↑
Relative major: Db

Detailed description: This block shows the Bb Natural minor scale in treble clef. The key signature has three flats (Bb, Eb, Ab). The scale notes are Bb, C, Db, Eb, F, G, Ab, Bb. An upward-pointing arrow is positioned below the Db note, with the text 'Relative major: Db' below it.

16 Bm^7 **B Natural minor scale (Aeolian scale; mode vi), key of D**



↑
Relative major: D

Detailed description: This block shows the B Natural minor scale in treble clef. The key signature has two sharps (F# and C#). The scale notes are B, C, D, E, F#, G, A, B. An upward-pointing arrow is positioned below the D note, with the text 'Relative major: D' below it.

Chapter 2- Natural Minor Scale Harmony

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C Natural minor scale

Musical staff showing the C natural minor scale. The notes are: C (R), D (2), E \flat (\uparrow b3), F (4), G (5), A \flat (b6), B \flat (b7), C (R). Below the staff, the relative major is identified as E \flat .

C Natural minor scale

Melodic 2nds

Musical staff showing the C natural minor scale with melodic intervals of 2nds. The intervals are: M2, m2, M2, M2, m2, M2, M2.

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

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

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

1.1 **Major 3rd (M3)**- contains 4 half-steps from one letter to the next. **Example:** [E \flat -G] = [E \flat -E-F-F \sharp -G]

1.2 **minor 3rd (m3)**- contains 3 half-steps from one letter to the next. **Example:** [C-E \flat] = [C-C \sharp -D-E \flat]

c. When we harmonize the **Natural minor scale**, we get a different succession of **3rds** than when we harmonize the **Major scale**.

The order and quality of **3rds** in the **Natural minor scale** is in fact the same as in the **Major**, but starting on the **6th note** of the **relative major scale**.

C Natural minor scale

Melodic 3rds

Musical staff showing the C natural minor scale with melodic intervals of 3rds. The intervals are: m3, m3, M3, m3, m3, M3, M3, m3. Below the staff, the relative major is identified as E \flat .


Harmonic 3rds

Musical staff showing the C natural minor scale with harmonic intervals of 3rds. The intervals are: m3, m3, M3, m3, m3, M3, M3, m3. Below the staff, the relative major is identified as E \flat .

C Natural minor scale

Melodic triads (arpeggios)

5 Cm D^o E^b Fm Gm A^b B^b Cm




Key: Cm i ii^o ^bIII iv v ^bVI ^bVII i

Key: E^b vi vii^o I ii iii IV V vi

Harmonic triads (chords)

6 Cm D^o E^b Fm Gm A^b B^b Cm



Key: Cm i ii^o ^bIII iv v ^bVI ^bVII i

Key: E^b vi vii^o I ii iii IV V vi

minor diminished Major minor minor Major Major minor

a. **Roman numerals** are used to indicate the **quality** of a **triad**, and the **scale degree** on which the **triad** is based (i.e. **Upper-case = Major, lower-case = minor**).

b. The **Natural minor scale** generates a different series of **Roman numerals** than the **Major scale**.

Harmonizing the **Natural minor scale** assigns new **Roman numerals** to the harmonies of the major scale.

c. Each **Roman numeral** in the harmony of the **Natural minor scale** corresponds to an equivalent but differing **Roman numeral** in the harmony of the **Major scale**.

Each chord has at least two **functions**: a **Major scale** function, and a **Natural minor scale** function.

d. **Corresponding Roman numerals in relative Major and minor scales:**

Natural minor scale

i = minor; 1st degree
 ii^o = diminished; 2nd degree
^bIII = Major; 3rd degree
 iv = minor; 4th degree
 v = minor; 5th degree
^bVI = Major; 6th degree
^bVII = Major; 7th degree

-EQUALS-

Major scale

vi = minor; 6th degree
 vii^o = diminished; 7th degree
 I = Major; 1st degree
 ii = minor; 2nd degree
 iii = minor; 3rd degree
 IV = Major; 4th degree
 V = Major; 5th degree

e. In the **Natural minor scale**, the **III**, **VI**, and **VII** chords have the following properties:

1. The **III**, **VI**, and **VII** chords are all **major triads**.
2. Each chord is preceded by a [^b] symbol [^bIII, ^bVI, ^bVII] to reflect the **lowered 3rd, 6th, and 7th** scale degrees of the **Natural minor scale** in comparison to the **parallel Major scale** (in this case, **C Major**; book II, Chapter 1 (pg. 3)).

8 C Natural minor scale

7th arpeggios

Key: Cm i⁷ ii^{ø7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
 Key: Eb vi⁷ vii^{ø7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

7th chords

Key: Cm i⁷ ii^{ø7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
 Key: Eb vi⁷ vii^{ø7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

minor7th half diminished7th* Major7th minor7th minor7th Major7th Dominant7th minor7th

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

*In jazz, **half-diminished 7th chords** are also known as **minor 7th (b5) chords**.

Corresponding Roman numerals in relative Major and minor scales:

Natural minor scale

Major scale

i7 = minor 7th; 1st degree
 iiø7 = half-diminished 7th; 2nd degree
 bIII7 = Major 7th; 3rd degree
 iv7 = minor 7th; 4th degree
 v7 = minor 7th; 5th degree
 bVI7 = Major 7th; 6th degree
 bVII7 = Dominant 7th; 7th degree

-EQUALS-

vi7 = minor 7th; 6th degree
 viiø7 = half-diminished 7th; 7th degree
 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

C Natural minor scale

9 Melodic 3rds

m3 m3 ↑ M3 m3 m3 M3 M3 m3
 Harmonic 3rds Relative major: Eb

10

m3 m3 ↑ M3 m3 m3 M3 M3 m3
 Relative major: Eb

Melodic triads (arpeggios)

11 Cm D^o Eb Fm Gm Ab Bb Cm

Key:Cm i ii^o bIII iv v bVI bVII i
 Key:Eb vi vii^o I ii iii IV V vi

Harmonic triads (chords)

12 Cm D^o Eb Fm Gm Ab Bb Cm

Key:Cm i ii^o bIII iv v bVI bVII i
 Key:Eb vi vii^o I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

7th arpeggios

13 Cm⁷ D^{o7} Eb^{Δ7} Fm⁷ Gm⁷ Ab^{Δ7} Bb⁷ Cm⁷

Key:Cm i⁷ ii^{o7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
 Key:Eb vi⁷ vii^{o7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

7th chords

14 Cm⁷ D^{o7} Eb^{Δ7} Fm⁷ Gm⁷ Ab^{Δ7} Bb⁷ Cm⁷

Key:Cm i⁷ ii^{o7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
 Key:Eb vi⁷ vii^{o7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷
 minor7th half diminished7th Major7th minor7th minor7th Major7th Dominant7th minor7th

C# Natural minor scale

15 **Melodic 3rds**

m3 m3 M3 m3 m3 M3 M3 m3

Harmonic 3rds

Relative major: E

m3 m3 M3 m3 m3 M3 M3 m3

Relative major: E

Melodic triads (arpeggios)

C#m D#° E F#m G#m A B C#m

Key: C#m i ii° bIII iv v bVI bVII i

Key: E vi vii° I ii iii IV V vi

Harmonic triads (chords)

C#m D#° E F#m G#m A B C#m

Key: C#m i ii° bIII iv v bVI bVII i

Key: E vi vii° I ii iii IV V vi

minor diminished Major minor minor Major Major minor

7th arpeggios

C#m7 D#°7 EΔ7 F#m7 G#m7 AΔ7 B7 C#m7

Key: C#m i⁷ ii^{°7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷

Key: E vi⁷ vii^{°7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

7th chords

C#m7 D#°7 EΔ7 F#m7 G#m7 AΔ7 B7 C#m7

Key: C#m i⁷ ii^{°7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷

Key: E vi⁷ vii^{°7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

minor7th half diminished7th Major7th minor7th minor7th Major7th Dominant7th minor7th

D Natural minor scale

21 **Melodic 3rds**



m3 m3 ↑ M3 m3 m3 M3 M3 m3
Harmonic 3rds **Relative major: F**

22



m3 m3 ↑ M3 m3 m3 M3 M3 m3
Relative major: F

Melodic triads (arpeggios)



Dm E° F Gm Am Bb C Dm
Key: Dm i ii° bIII iv v bVI bVII i
Key: F vi vii° I ii iii IV V vi

Harmonic triads (chords)



Dm E° F Gm Am Bb C Dm
Key: Dm i ii° bIII iv v bVI bVII i
Key: F vi vii° I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

7th arpeggios



Dm⁷ E°⁷ F^{Δ7} Gm⁷ Am⁷ Bb^{Δ7} C⁷ Dm⁷
Key: Dm i⁷ ii^{°7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
Key: F vi⁷ vii^{°7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

7th chords



Dm⁷ E°⁷ F^{Δ7} Gm⁷ Am⁷ Bb^{Δ7} C⁷ Dm⁷
Key: Dm i⁷ ii^{°7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
Key: F vi⁷ vii^{°7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷
 minor7th half diminished7th Major7th minor7th minor7th Major7th Dominant7th minor7th

E_b Natural minor scale

27 **Melodic 3rds**

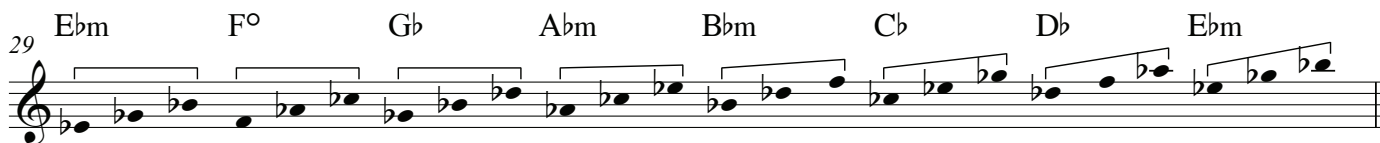


m3 m3 ↑ M3 m3 m3 M3 M3 m3
Harmonic 3rds **Relative major: G_b**



m3 m3 ↑ M3 m3 m3 M3 M3 m3
Relative major: G_b

Melodic triads (arpeggios)



Key: E_bm i ii^o bIII iv v bVI bVII i

Key: G_b vi vii^o I ii iii IV V vi

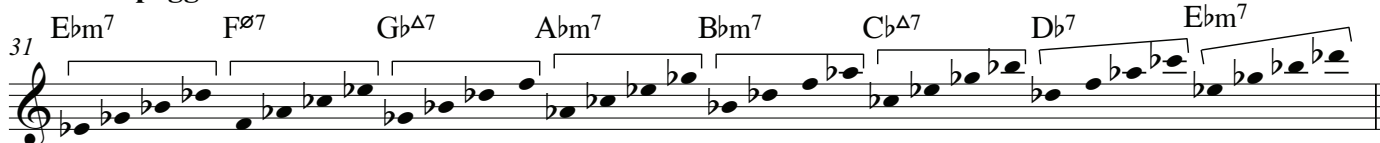
Harmonic triads (chords)



Key: E_bm i ii^o bIII iv v bVI bVII i

Key: G_b vi vii^o I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

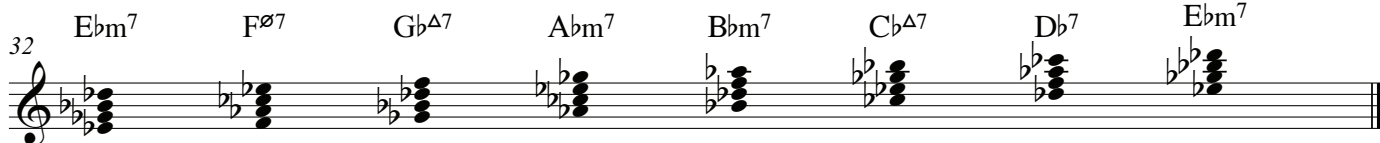
7th arpeggios



Key: E_bm i⁷ ii^{o7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷

Key: G_b vi⁷ vii^{o7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

7th chords



Key: E_bm i⁷ ii^{o7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷

Key: G_b vi⁷ vii^{o7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷
 minor 7th half diminished 7th Major 7th minor 7th minor 7th Major 7th Dominant 7th minor 7th

E Natural minor scale

33 **Melodic 3rds**

m3 m3 ↑ M3 m3 m3 M3 M3 m3
Harmonic 3rds **Relative major: G**

34

m3 m3 ↑ M3 m3 m3 M3 M3 m3
Relative major: G

Melodic triads (arpeggios)

35 Em F#° G Am Bm C D Em

Key: Em i ii° bIII iv v bVI bVII i
Key: G vi vii° I ii iii IV V vi

Harmonic triads (chords)

36 Em F#° G Am Bm C D Em

Key: Em i ii° bIII iv v bVI bVII i
Key: G vi vii° I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

7th arpeggios

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

Key: Em i⁷ ii^{ø7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
Key: G vi⁷ vii^{ø7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

7th chords

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

Key: Em i⁷ ii^{ø7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
Key: G vi⁷ vii^{ø7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷
 minor^{7th} half
diminished^{7th} Major^{7th} minor^{7th} minor^{7th} Major^{7th} Dominant^{7th} minor^{7th}

F Natural minor scale

39 **Melodic 3rds**

m3 m3 ↑ M3 m3 m3 M3 M3 m3
Harmonic 3rds **Relative major: Ab**

m3 m3 ↑ M3 m3 m3 M3 M3 m3
Relative major: Ab

Melodic triads (arpeggios)

41 Fm G^o Ab Bbm Cm Db Eb Fm

Key:Fm i ii^o bIII iv v bVI bVII i
Key:Ab vi vii^o I ii iii IV V vi

Harmonic triads (chords)

42 Fm G^o Ab Bbm Cm Db Eb Fm

Key:Fm i ii^o bIII iv v bVI bVII i
Key:Ab vi vii^o I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

7th arpeggios

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

Key:Fm i⁷ ii^{ø7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
Key:Ab vi⁷ vii^{ø7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

7th chords

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

Key:Fm i⁷ ii^{ø7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
Key:Ab vi⁷ vii^{ø7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷
 minor7th half diminished7th Major7th minor7th minor7th Major7th Dominant7th minor7th

F# Natural minor scale

45 **Melodic 3rds**

m3 m3 ↑ M3 m3 m3 M3 M3 m3
Harmonic 3rds **Relative major: A**

46

m3 m3 ↑ M3 m3 m3 M3 M3 m3
Relative major: A

Melodic triads (arpeggios)

47 F#m G#° A Bm C#m D E F#m

Key: F#m i ii° bIII iv v bVI bVII i
Key: A vi vii° I ii iii IV V vi

Harmonic triads (chords)

48 F#m G#° A Bm C#m D E F#m

Key: F#m i ii° bIII iv v bVI bVII i
Key: A vi vii° I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

7th arpeggios

49 F#m7 G#°7 AΔ7 Bm7 C#m7 DΔ7 E7 F#m7

Key: F#m i⁷ ii^{°7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
Key: A vi⁷ vii^{°7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

7th chords

50 F#m7 G#°7 AΔ7 Bm7 C#m7 DΔ7 E7 F#m7

Key: F#m i⁷ ii^{°7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
Key: A vi⁷ vii^{°7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷
 minor7th half diminished7th Major7th minor7th minor7th Major7th Dominant7th minor7th

G Natural minor scale

51 **Melodic 3rds**

m3 m3 ↑ M3 m3 m3 M3 M3 m3
Harmonic 3rds **Relative major: B \flat**

m3 m3 ↑ M3 m3 m3 M3 M3 m3
Relative major: B \flat

Melodic triads (arpeggios)

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

Key: Gm i ii $^{\circ}$ bIII iv v bVI bVII i
Key: B \flat vi vii $^{\circ}$ I ii iii IV V vi

Harmonic triads (chords)

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

Key: Gm i ii $^{\circ}$ bIII iv v bVI bVII i
Key: B \flat vi vii $^{\circ}$ I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

7th arpeggios

55 Gm 7 A $^{\circ 7}$ B $\flat^{\Delta 7}$ Cm 7 Dm 7 E $\flat^{\Delta 7}$ F 7 Gm 7

Key: Gm i 7 ii $^{\circ 7}$ bIII 7 iv 7 v 7 bVI 7 bVII 7 i 7
Key: B \flat vi 7 vii $^{\circ 7}$ I 7 ii 7 iii 7 IV 7 V 7 vi 7

7th chords

56 Gm 7 A $^{\circ 7}$ B $\flat^{\Delta 7}$ Cm 7 Dm 7 E $\flat^{\Delta 7}$ F 7 Gm 7

Key: Gm i 7 ii $^{\circ 7}$ bIII 7 iv 7 v 7 bVI 7 bVII 7 i 7
Key: B \flat vi 7 vii $^{\circ 7}$ I 7 ii 7 iii 7 IV 7 V 7 vi 7
 minor7th half diminished7th Major7th minor7th minor7th Major7th Dominant7th minor7th

G# Natural minor scale

57 **Melodic 3rds**

m3 m3 ↑ M3 m3 m3 M3 M3 m3
Harmonic 3rds **Relative major: B**

58

m3 m3 ↑ M3 m3 m3 M3 M3 m3
Relative major: B

Melodic triads (arpeggios)

59 G#m A#° B C#m D#m E F# G#m

Key: G#m i ii° bIII iv v bVI bVII i
Key: B vi vii° I ii iii IV V vi

Harmonic triads (chords)

60 G#m A#° B C#m D#m E F# G#m

Key: G#m i ii° bIII iv v bVI bVII i
Key: B vi vii° I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

7th arpeggios

61 G#m7 A#°7 BΔ7 C#m7 D#m7 EΔ7 F#7 G#m7

Key: G#m i⁷ ii^{°7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
Key: B vi⁷ vii^{°7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

7th chords

62 G#m7 A#°7 BΔ7 C#m7 D#m7 EΔ7 F#7 G#m7

Key: G#m i⁷ ii^{°7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
Key: B vi⁷ vii^{°7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷
 minor7th half Major7th minor7th minor7th Major7th Dominant7th minor7th
 diminished7th

A Natural minor scale

63 **Melodic 3rds**

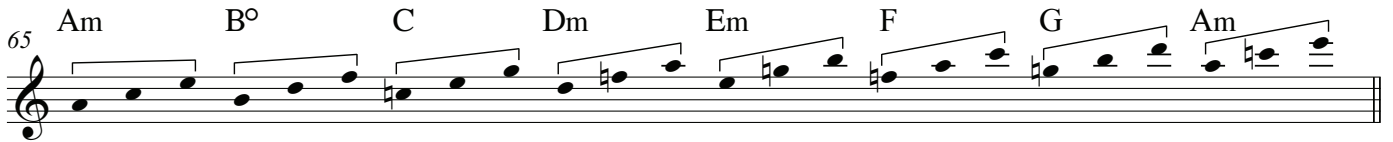


m3 m3 ↑ M3 m3 m3 M3 M3 m3
Harmonic 3rds **Relative major: C**



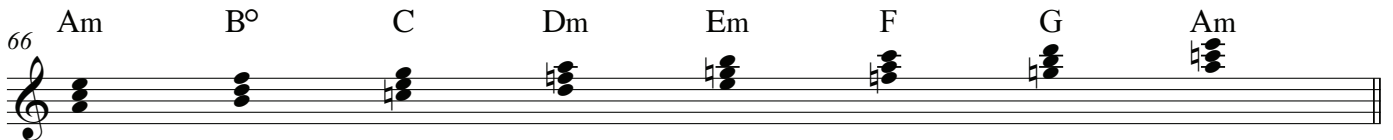
m3 m3 ↑ M3 m3 m3 M3 M3 m3
Relative major: C

Melodic triads (arpeggios)



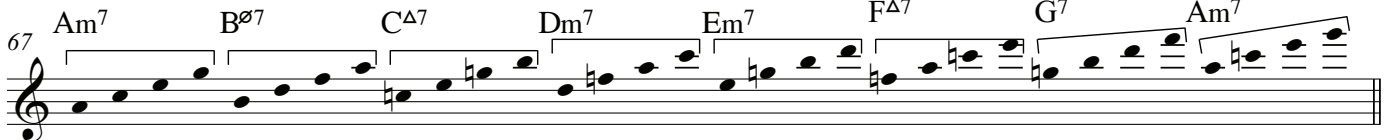
Key: Am i ii° bIII iv v bVI bVII i
Key: C vi vii° I ii iii IV V vi

Harmonic triads (chords)



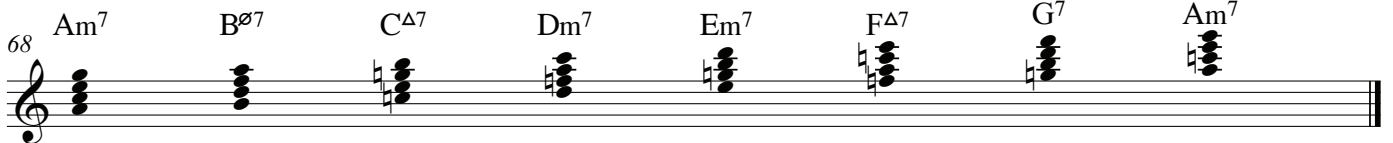
Key: Am i ii° bIII iv v bVI bVII i
Key: C vi vii° I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

7th arpeggios



Key: Am i⁷ ii^{°7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
Key: C vi⁷ vii^{°7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

7th chords



Key: Am i⁷ ii^{°7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
Key: C vi⁷ vii^{°7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷
 minor7th half diminished7th Major7th minor7th minor7th Major7th Dominant7th minor7th

Bb Natural minor scale

69 **Melodic 3rds**

m3 m3 \uparrow M3 m3 m3 M3 M3 m3

Harmonic 3rds

Relative major: Db

70

m3 m3 \uparrow M3 m3 m3 M3 M3 m3

Relative major: Db

Melodic triads (arpeggios)

71

Bbm C° Db Ebm Fm Gb Ab Bbm

Key: Bbm i ii° bIII iv v bVI bVII i
 Key: Db vi vii° I ii iii IV V vi

Harmonic triads (chords)

72

Bbm C° Db Ebm Fm Gb Ab Bbm

Key: Bbm i ii° bIII iv v bVI bVII i
 Key: Db vi vii° I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

7th arpeggios

73

Bbm7 Cø7 DbΔ7 Ebm7 Fm7 GbΔ7 Ab7 Bbm7

Key: Bbm i⁷ ii^{ø7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
 Key: Db vi⁷ vii^{ø7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

7th chords

74

Bbm7 Cø7 DbΔ7 Ebm7 Fm7 GbΔ7 Ab7 Bbm7

Key: Bbm i⁷ ii^{ø7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
 Key: Db vi⁷ vii^{ø7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷
 minor7th half Major7th minor7th minor7th Major7th Dominant7th minor7th
 diminished7th

B Natural minor scale

75 **Melodic 3rds**

m3 m3 M3 m3 m3 M3 M3 m3

Harmonic 3rds

Relative major: D

m3 m3 M3 m3 m3 M3 M3 m3

Relative major: D

Melodic triads (arpeggios)

Bm C#° D Em F#m G A Bm

Key: Bm i ii° bIII iv v bVI bVII i
 Key: D vi vii° I ii iii IV V vi

Harmonic triads (chords)

Bm C#° D Em F#m G A Bm

Key: Bm i ii° bIII iv v bVI bVII i
 Key: D vi vii° I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

7th arpeggios

Bm7 C#°7 DΔ7 Em7 F#m7 GΔ7 A7 Bm7

Key: Bm i⁷ ii^{°7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
 Key: D vi⁷ vii^{°7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

7th chords

Bm7 C#°7 DΔ7 Em7 F#m7 GΔ7 A7 Bm7

Key: Bm i⁷ ii^{°7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
 Key: D vi⁷ vii^{°7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷
 minor7th half Major7th minor7th minor7th Major7th Dominant7th minor7th
 diminished7th

Chapter 3- Natural Minor Scale Modes (I. Relative)

- 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. In this chapter, we are looking at the modes of the **Natural minor scale**.

1. **Natural minor scale modes** are identical to the **Major scale modes**, except that their **Roman numeral identities** have been reassigned to reflect the position of each mode in relation to the **root** and **scale degrees** of the **Natural minor scale**.

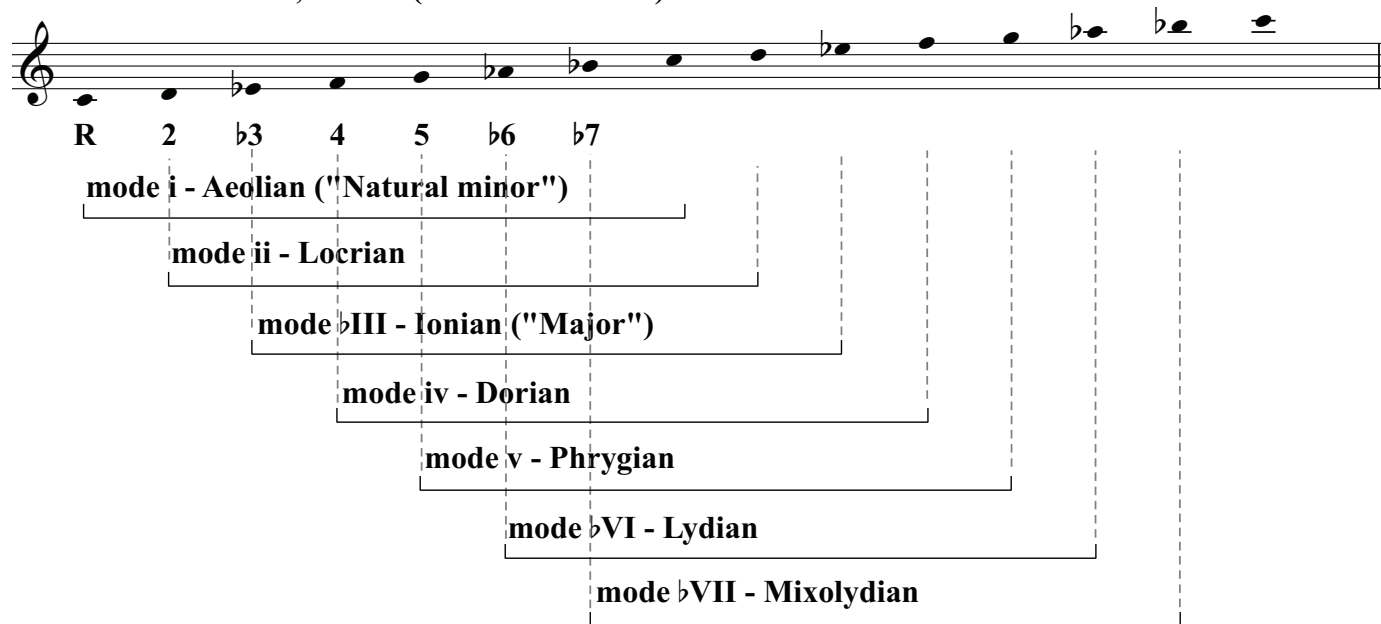
2. **Natural Minor scale modes**, like **Major scale modes**, can be grouped together in two separate, but equally important ways:

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**.

d. In this chapter, we will be looking at **Natural minor scale relative modes**.

C Aeolian scale; mode i ("Natural minor")



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

- 1.1 **Aeolian mode** is the 1st mode of any Natural minor key, starting and ending on the root of the key. **Aeolian mode** is also known as the **Natural minor scale**.
- 1.2 **Locrian mode** is the 2nd mode of any Natural minor/Aeolian scale.
- 1.3 **Ionian mode ("Major")** is the 3rd mode of any Natural minor/Aeolian scale.
- 1.4 **Dorian mode** is the 4th mode of any Natural minor/Aeolian scale.
- 1.5 **Phrygian mode** is the 5th mode of any Natural minor/Aeolian scale.
- 1.6 **Lydian mode** is the 6th mode of any Natural minor/Aeolian scale.
- 1.7 **Mixolydian mode** is the 7th mode of any Natural minor/Aeolian scale.

2. Every mode in the previous diagram can be said to be **relative** to the **C Natural minor scale**.
3. Every mode in the previous diagram has a different **root**, based on its beginning and ending notes within the **C Natural minor scale**.
4. Each **relative mode** derived from the **Natural minor scale** corresponds to a specific **7th chord** also derived from the **Natural minor 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. ("For every chord, there is a scale.")

2 Cm⁷ C Aeolian scale; mode i ("Natural minor")

i⁷

Relative major: Eb

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 Cm⁷ C Aeolian scale; mode i ("Natural minor")

i⁷

Examples of **outside notes**

C minor

4 Cm⁷ C Aeolian scale; mode i ("Natural minor")

5 D^{ø7} D Locrian scale; mode ii Eb^{Δ7} Eb Ionian scale; mode bIII ("Major")

7 Fm⁷ F Dorian scale; mode iv Gm⁷ G Phrygian scale; mode v

9 Ab^{Δ7} Ab Lydian scale; mode bVI Bb⁷ Bb Mixolydian scale; mode bVII

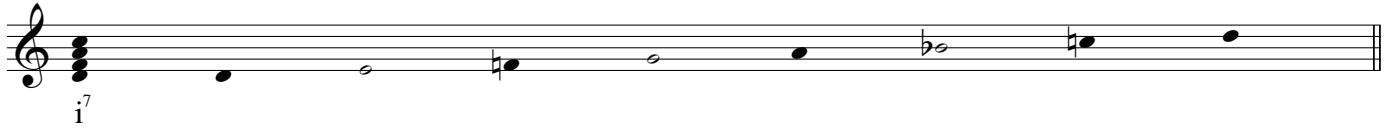
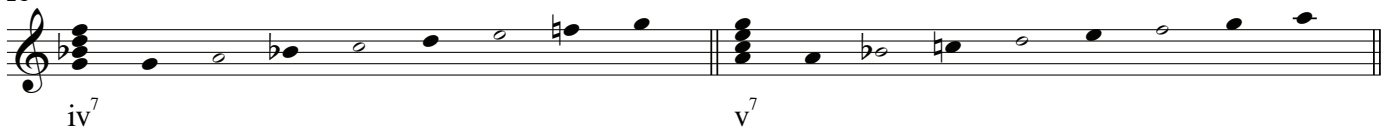
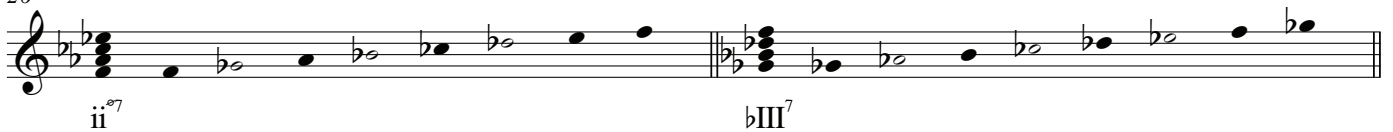
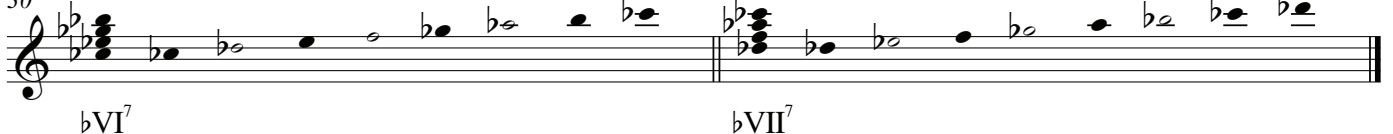
C#minor

11 C#m⁷ C# Aeolian scale; mode i ("Natural minor")

12 D#^{ø7} D# Locrian scale; mode ii E^{Δ7} E Ionian scale; mode bIII ("Major")

14 F#m⁷ F# Dorian scale; mode iv G#m⁷ G# Phrygian scale; mode v

16 A^{Δ7} A Lydian scale; mode bVI B⁷ B Mixolydian scale; mode bVII

D minor18 **Dm⁷ D Aeolian scale; mode i ("Natural minor")**19 **E^{ø7} E Locrian scale; mode ii****F^{Δ7} F Ionian scale; mode bIII ("Major")**21 **Gm⁷ G Dorian scale; mode iv****Am⁷ A Phrygian scale; mode v**23 **Bb^{Δ7} Bb Lydian scale; mode bVI****C⁷ C Mixolydian scale; mode bVII****Eb minor**25 **Ebm⁷ Eb Aeolian scale; mode i ("Natural minor")**26 **F^{ø7} F Locrian scale; mode ii****Gb^{Δ7} Gb Ionian scale; mode bIII ("Major")**28 **Abm⁷ Ab Dorian scale; mode iv****Bbm⁷ Bb Phrygian scale; mode v**30 **Cb^{Δ7} Cb Lydian scale; mode bVI****Db⁷ Db Mixolydian scale; mode bVII**

E minor

32 **Em⁷ E Aeolian scale; mode i ("Natural minor")**

*i*⁷

33 **F[#]7^o F[#] Locrian scale; mode ii** **G^Δ7 G Ionian scale; mode \flat III ("Major")**

*ii*⁷ *bIII*⁷

35 **Am⁷ A Dorian scale; mode iv** **Bm⁷ B Phrygian scale; mode v**

*iv*⁷ *v*⁷

37 **C^Δ7 C Lydian scale; mode \flat VI** **D⁷ D Mixolydian scale; mode \flat VII**

*bVI*⁷ *bVII*⁷

F minor

39 **Fm⁷ F Aeolian scale; mode i ("Natural minor")**

*i*⁷

40 **G^ø7 G Locrian scale; mode ii** **A \flat ^Δ7 A \flat Ionian scale; mode \flat III ("Major")**

*ii*⁷ *bIII*⁷

42 **B \flat m⁷ B \flat Dorian scale; mode iv** **Cm⁷ C Phrygian scale; mode v**

*iv*⁷ *v*⁷

44 **D \flat ^Δ7 D \flat Lydian scale; mode \flat VI** **E \flat 7 E \flat Mixolydian scale; mode \flat VII**

*bVI*⁷ *bVII*⁷

F#minor

46 **F#m⁷ F# Aeolian scale; mode i ("Natural minor")**

*i*⁷

47 **G#^{ø7} G# Locrian scale; mode ii** **A^{Δ7} A Ionian scale; mode bIII ("Major")**

ii^{ø7} *bIII*⁷

49 **Bm⁷ B Dorian scale; mode iv** **C#m⁷ C# Phrygian scale; mode v**

*iv*⁷ *v*⁷

51 **D^{Δ7} D Lydian scale; mode bVI** **E⁷ E Mixolydian scale; mode bVII**

*bVI*⁷ *bVII*⁷

G minor

53 **Gm⁷ G Aeolian scale; mode i ("Natural minor")**

*i*⁷

54 **A^{ø7} A Locrian scale; mode ii** **Bb^{Δ7} Bb Ionian scale; mode bIII ("Major")**

ii^{ø7} *bIII*⁷

56 **Cm⁷ C Dorian scale; mode iv** **Dm⁷ D Phrygian scale; mode v**

*iv*⁷ *v*⁷

58 **Eb^{Δ7} Eb Lydian scale; mode bVI** **F⁷ F Mixolydian scale; mode bVII**

*bVI*⁷ *bVII*⁷

G#minor

60 G#m⁷ G# Aeolian scale; mode i ("Natural minor")

i^7

61 A#^{ø7} A# Locrian scale; mode iiB^{Δ7} B Ionian scale; mode \flat III ("Major")

$ii^{\circ 7}$ $\flat III^7$

63 C#m⁷ C# Dorian scale; mode ivD#m⁷ D# Phrygian scale; mode v

iv^7 v^7

65 E^{Δ7} E Lydian scale; mode \flat VIF#⁷ F# Mixolydian scale; mode \flat VII

$\flat VI^7$ $\flat VII^7$

A minor

67 Am⁷ A Aeolian scale; mode i ("Natural minor")

i^7

68 B^{ø7} B Locrian scale; mode iiC^{Δ7} C Ionian scale; mode \flat III ("Major")

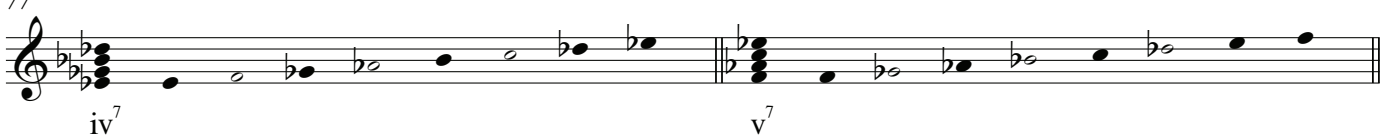
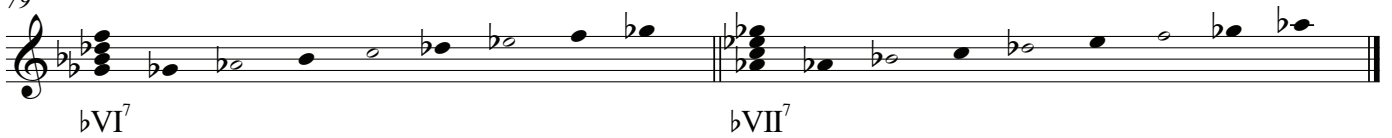
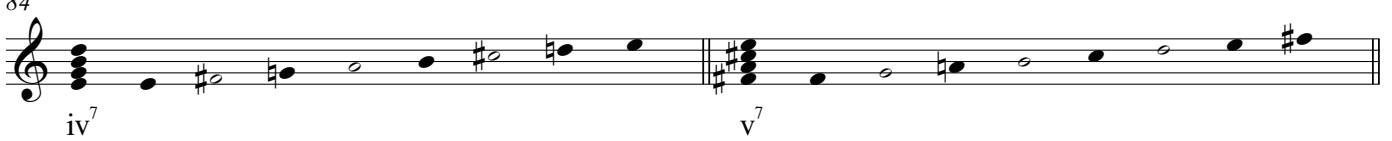
$ii^{\circ 7}$ $\flat III^7$

70 Dm⁷ D Dorian scale; mode ivEm⁷ E Phrygian scale; mode v

iv^7 v^7

72 F^{Δ7} F Lydian scale; mode \flat VIG⁷ G Mixolydian scale; mode \flat VII

$\flat VI^7$ $\flat VII^7$

B \flat minor74 **B \flat m 7 B \flat Aeolian scale; mode i ("Natural minor")**75 **C \emptyset 7 C Locrian scale; mode ii****D \flat Δ 7 D \flat Ionian scale; mode \flat III ("Major")**77 **E \flat m 7 E \flat Dorian scale; mode iv****Fm 7 F Phrygian scale; mode v**79 **G \flat Δ 7 G \flat Lydian scale; mode \flat VI****A \flat 7 A \flat Mixolydian scale; mode \flat VII****B minor**81 **Bm 7 B Aeolian scale; mode i ("Natural minor")**82 **C $\#$ \emptyset 7 C $\#$ Locrian scale; mode ii****D Δ 7 D Ionian scale; mode \flat III ("Major")**84 **E \flat m 7 E Dorian scale; mode iv****F $\#$ m 7 F $\#$ Phrygian scale; mode v**86 **G Δ 7 G Lydian scale; mode \flat VI****A 7 A Mixolydian scale; mode \flat VII**

Chapter 4- Natural Minor Scale Modes (II. Parallel)

Per Chapter 3: 2. Natural minor 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 the **parallel modes** of the **natural minor scale**.

Analyzing **parallel natural minor modes** may appear to be somewhat redundant, as they are the same as **Major scale modes**, presented in a different order of appearance.

However, it is necessary to understand the ordering of **parallel natural minor modes** in order to understand the modes of the **Melodic minor** and **Harmonic minor scales**.

Consider the scales **C Ionian** and **C Aeolian**:

C^{Δ7} C **Ionian scale; mode \flat III ("Major")**

2 C^{m7} C **Aeolian scale; mode i ("Natural minor")**

a. **C Ionian mode** and **C Aeolian mode** are **parallel scales**, sharing the **root note C**.

1. The note **C** is the **pitch axis** for any mode or scale with the **root C**.
2. **Pitch axis theory** compares parallel scales to the **major scale (Ionian)** as a "default" scale.

- 3.1 When a **natural** note is made **flat (b)**, it is said to be **lowered (↓)**.
- 3.2 When a **sharp** note is made **natural (♮)**, it is said to be **lowered (↓)**.
- 3.3 When a **natural** note is made **sharp (#)**, it is said to be **raised (↑)**.
- 3.4 When a **flat** note is made **natural (♮)**, it is said to be **raised (↑)**.

4. We can draw a qualitative comparison between **Ionian** and **Aeolian mode**.

- 5.1 **C Ionian** contains the notes **[E], [A]** and **[B]**.
- 5.2 **C Aeolian** contains the notes **[Eb], [Ab]** and **[Bb]**.

5.3 **C Aeolian mode** is equivalent to **C Ionian mode** with a **lowered (b)3, lowered (b)6, 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 **Aeolian mode** is **[↓3,↓6,↓7]**.

30

3 C^{Δ7} C **Ionian scale; mode \flat III ("Major")**

\flat III⁷

4 C^{∅7} C **Locrian scale; mode ii**

ii^{∅7} ↓2 ↓3 ↓5 ↓6 ↓7

b. **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 \flat],[E \flat],[G \flat],[A \flat] and [B \flat].

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].**

5 C^{Δ7} C **Ionian scale; mode \flat III ("Major")**

\flat III⁷

6 Cm⁷ C **Dorian scale; mode iv**

iv⁷ ↓3 ↓7

c. **C Ionian mode and C Dorian mode are parallel scales.**

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

1.2 **C Dorian** contains the notes [E \flat] and [B \flat].

2. **C Dorian mode** is equivalent to **C Ionian mode** with a

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

3. **The scale formula for Dorian mode is [↓3,↓7].**

7 C^{Δ7} C **Ionian scale; mode \flat III ("Major")**

\flat III⁷

8 Cm⁷ C **Phrygian scale; mode v**

v⁷ ↓2 ↓3 ↓6 ↓7

d. 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 [D \flat],[E \flat],[A \flat] and [B \flat].

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

lowered (\flat)2, lowered (\flat)3,

lowered (\flat)6, and lowered (\flat)7.

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

9 C^{Δ7} C **Ionian scale; mode \flat III ("Major")**

\flat III⁷

10 C^{Δ7} C **Lydian scale; mode \flat VI**

\flat VI⁷ ↑4

e. 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].

32

11 C^{Δ7} C **Ionian scale; mode \flat III ("Major")**

12 C⁷ C **Mixolydian scale; mode \flat VII**

f. **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 [**B \flat**].

2. **C Mixolydian mode** is equivalent to **C Ionian mode** with a **lowered (\flat)7**.

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

g. **SUMMARY of parallel natural minor mode formulas:**

1.1 **Aeolian** = [\downarrow 3, \downarrow 6, \downarrow 7]

1.2 **Locrian** = [\downarrow 2, \downarrow 3, \downarrow 5, \downarrow 6, \downarrow 7]

1.3 **Ionian** = [**R234567**]

1.4 **Dorian** = [\downarrow 3, \downarrow 7]

1.5 **Phrygian** = [\downarrow 2, \downarrow 3, \downarrow 6, \downarrow 7]

1.6 **Lydian** = [\uparrow 4]

1.7 **Mixolydian** = [\downarrow 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. ("For every chord, there is a scale.")

3.1 **Accidentals** are also known as **enharmonic equivalents**.

Example: [**C \sharp**] and [**D \flat**] 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 \flat Dorian** = **C \sharp Dorian**]; [**G \flat Aeolian** = **F \sharp Aeolian**]

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

Parallel Natural Minor Scale Modes in all keys

C root

Cm⁷ C Aeolian scale; mode i ("Natural minor")

14 C^{ø7} C Locrian scale; mode ii

C^{Δ7} C Ionian scale; mode \flat III ("Major")

16 Cm⁷ C Dorian scale; mode iv

Cm⁷ C Phrygian scale; mode v

18 C^{Δ7} C Lydian scale; mode \flat VI

C⁷ C Mixolydian scale; mode \flat VII

C#root

20 C#m⁷ C# Aeolian scale; mode i ("Natural minor")

21 C#^{ø7} C# Locrian scale; mode ii

D \flat ^{Δ7} D \flat Ionian scale; mode \flat III ("Major")

23 C#m⁷ C# Dorian scale; mode iv

C#m⁷ C# Phrygian scale; mode v

25 D \flat ^{Δ7} D \flat Lydian scale; mode \flat VI

C#⁷ C# Mixolydian scale; mode \flat VII

D root

27 Dm⁷ D Aeolian scale; mode i ("Natural minor")

27 Dm⁷ D Aeolian scale; mode i ("Natural minor")

28 D^{ø7} D Locrian scale; mode iiD^{Δ7} D Ionian scale; mode \flat III ("Major")

28 D^{ø7} D Locrian scale; mode ii D^{Δ7} D Ionian scale; mode \flat III ("Major")

30 Dm⁷ D Dorian scale; mode ivDm⁷ D Phrygian scale; mode v

30 Dm⁷ D Dorian scale; mode iv Dm⁷ D Phrygian scale; mode v

32 D^{Δ7} D Lydian scale; mode \flat VID⁷ D Mixolydian scale; mode \flat VII

32 D^{Δ7} D Lydian scale; mode \flat VI D⁷ D Mixolydian scale; mode \flat VII

Eb root

34 Ebm⁷ Eb Aeolian scale; mode i ("Natural minor")

34 Ebm⁷ Eb Aeolian scale; mode i ("Natural minor")

35 D^{Δø7} D# Locrian scale; mode iiEb^{Δ7} Eb Ionian scale; mode \flat III ("Major")

35 D^{Δø7} D# Locrian scale; mode ii Eb^{Δ7} Eb Ionian scale; mode \flat III ("Major")

37 Ebm⁷ Eb Dorian scale; mode ivD^{Δm7} D# Phrygian scale; mode v

37 Ebm⁷ Eb Dorian scale; mode iv D^{Δm7} D# Phrygian scale; mode v

39 Eb^{Δ7} Eb Lydian scale; mode \flat VIEb⁷ Eb Mixolydian scale; mode \flat VII

39 Eb^{Δ7} Eb Lydian scale; mode \flat VI Eb⁷ Eb Mixolydian scale; mode \flat VII

E root

41 Em⁷ E Aeolian scale; mode i ("Natural minor")

Musical notation for E Aeolian scale; mode i ("Natural minor"). The staff shows a treble clef with a key signature of one flat (Bb). The scale notes are G, A, Bb, C, D, E, F, G. Chord symbols below the staff are i⁷, ↓3, ↓6, and ↓7.

42 E^{ø7} E Locrian scale; mode ii

E^{Δ7} E Ionian scale; mode bIII ("Major")

Musical notation for E Locrian scale; mode ii and E Ionian scale; mode bIII ("Major"). The first staff shows E Locrian (Bb, C, D, Eb, F, G, A) with chord symbols ii^{ø7}, ↓2, ↓3, ↓5, ↓6, ↓7. The second staff shows E Ionian mode bIII (F#) with chord symbol bIII⁷.

44 Em⁷ E Dorian scale; mode iv

Em⁷ E Phrygian scale; mode v

Musical notation for E Dorian scale; mode iv and E Phrygian scale; mode v. The first staff shows E Dorian mode iv (Bb, C, D, E, F, G, A) with chord symbols iv⁷, ↓3, ↓7. The second staff shows E Phrygian mode v (Bb, C, D, E, F, G, Ab) with chord symbols v⁷, ↓2, ↓3, ↓6, ↓7.

46 E^{Δ7} E Lydian scale; mode bVI

E⁷ E Mixolydian scale; mode bVII

Musical notation for E Lydian scale; mode bVI and E Mixolydian scale; mode bVII. The first staff shows E Lydian mode bVI (F#, G, A, B, C, D, E) with chord symbols bVI⁷, ↑4. The second staff shows E Mixolydian mode bVII (F#, G, A, B, C, D, Eb) with chord symbols bVII⁷, ↓7.

F root

48 Fm⁷ F Aeolian scale; mode i ("Natural minor")

Musical notation for F Aeolian scale; mode i ("Natural minor"). The staff shows a treble clef with a key signature of two flats (Bb, Eb). The scale notes are G, Ab, Bb, C, D, Eb, F, G. Chord symbols below the staff are i⁷, ↓3, ↓6, and ↓7.

49 F^{ø7} F Locrian scale; mode ii

F^{Δ7} F Ionian scale; mode bIII ("Major")

Musical notation for F Locrian scale; mode ii and F Ionian scale; mode bIII ("Major"). The first staff shows F Locrian (Eb, F, G, Ab, Bb, C, D) with chord symbols ii^{ø7}, ↓2, ↓3, ↓5, ↓6, ↓7. The second staff shows F Ionian mode bIII (Gb) with chord symbol bIII⁷.

51 Fm⁷ F Dorian scale; mode iv

Fm⁷ F Phrygian scale; mode v

Musical notation for F Dorian scale; mode iv and F Phrygian scale; mode v. The first staff shows F Dorian mode iv (Eb, F, G, Ab, Bb, C, D) with chord symbols iv⁷, ↓3, ↓7. The second staff shows F Phrygian mode v (Eb, F, G, Ab, Bb, C, Db) with chord symbols v⁷, ↓2, ↓3, ↓6, ↓7.

53 F^{Δ7} F Lydian scale; mode bVI

F⁷ F Mixolydian scale; mode bVII

Musical notation for F Lydian scale; mode bVI and F Mixolydian scale; mode bVII. The first staff shows F Lydian mode bVI (Gb, Ab, Bb, C, D, Eb, F) with chord symbols bVI⁷, ↑4. The second staff shows F Mixolydian mode bVII (Gb, Ab, Bb, C, D, Eb, Fb) with chord symbols bVII⁷, ↓7.

F#root55 **F#m⁷ F# Aeolian scale; mode i ("Natural minor")**

F#m⁷ F# Aeolian scale; mode i ("Natural minor")

i⁷ 3 6 7

56 **F#^{ø7} F# Locrian scale; mode ii****Gb^{Δ7} Gb Ionian scale; mode bIII ("Major")**

F#^{ø7} F# Locrian scale; mode ii

Gb^{Δ7} Gb Ionian scale; mode bIII ("Major")

ii^{ø7} 2 3 5 6 7 bIII⁷

58 **F#m⁷ F# Dorian scale; mode iv****F#m⁷ F# Phrygian scale; mode v**

F#m⁷ F# Dorian scale; mode iv

F#m⁷ F# Phrygian scale; mode v

iv⁷ 3 7 v⁷ 2 3 6 7

60 **Gb^{Δ7} Gb Lydian scale; mode bVI****F#⁷ F# Mixolydian scale; mode bVII**

Gb^{Δ7} Gb Lydian scale; mode bVI

F#⁷ F# Mixolydian scale; mode bVII

bVI⁷ 4 bVII⁷ 7

G root62 **Gm⁷ G Aeolian scale; mode i ("Natural minor")**

Gm⁷ G Aeolian scale; mode i ("Natural minor")

i⁷ 3 6 7

63 **G^{ø7} G Locrian scale; mode ii****G^{Δ7} G Ionian scale; mode bIII ("Major")**

G^{ø7} G Locrian scale; mode ii

G^{Δ7} G Ionian scale; mode bIII ("Major")

ii^{ø7} 2 3 5 6 7 bIII⁷

65 **Gm⁷ G Dorian scale; mode iv****Gm⁷ G Phrygian scale; mode v**

Gm⁷ G Dorian scale; mode iv

Gm⁷ G Phrygian scale; mode v

iv⁷ 3 7 v⁷ 2 3 6 7

67 **G^{Δ7} G Lydian scale; mode bVI****G⁷ G Mixolydian scale; mode bVII**

G^{Δ7} G Lydian scale; mode bVI

G⁷ G Mixolydian scale; mode bVII

bVI⁷ 4 bVII⁷ 7

G#root

69 G#m7 G# Aeolian scale; mode i ("Natural minor")

70 G#o7 G# Locrian scale; mode ii

Ab^7 Ab Ionian scale; mode bIII ("Major")

72 Abm7 Ab Dorian scale; mode iv

G#m7 G# Phrygian scale; mode v

74 Ab^7 Ab Lydian scale; mode bVI

Ab7 Ab Mixolydian scale; mode bVII

A root

76 Am7 A Aeolian scale; mode i ("Natural minor")

77 Ao7 A Locrian scale; mode ii

A^7 A Ionian scale; mode bIII ("Major")

79 Am7 A Dorian scale; mode iv

Am7 A Phrygian scale; mode v

81 A^7 A Lydian scale; mode bVI

A7 A Mixolydian scale; mode bVII

B \flat root83 **B \flat m 7 B \flat Aeolian scale; mode i ("Natural minor")**

84 **A \sharp $^{\circ 7}$ A \sharp Locrian scale; mode ii****B \flat Δ^7 B \flat Ionian scale; mode \flat III ("Major")**

86 **B \flat m 7 B \flat Dorian scale; mode iv****B \flat m 7 B \flat Phrygian scale; mode v**

88 **B \flat Δ^7 B \flat Lydian scale; mode \flat VI****B \flat 7 B \flat Mixolydian scale; mode \flat VII**
B root90 **Bm 7 B Aeolian scale; mode i ("Natural minor")**

91 **B $^{\circ 7}$ B Locrian scale; mode ii****B Δ^7 B Ionian scale; mode \flat III ("Major")**

93 **Bm 7 B Dorian scale; mode iv****Bm 7 B Phrygian scale; mode v**

95 **B Δ^7 B Lydian scale; mode \flat VI****B 7 B Mixolydian scale; mode \flat VII**

Chapter 5- The Harmonic Minor Scale

In this chapter, we will be studying the **harmonic minor scale**.

The **harmonic minor scale** evolved in European classical music as an alteration of the **natural minor scale**.

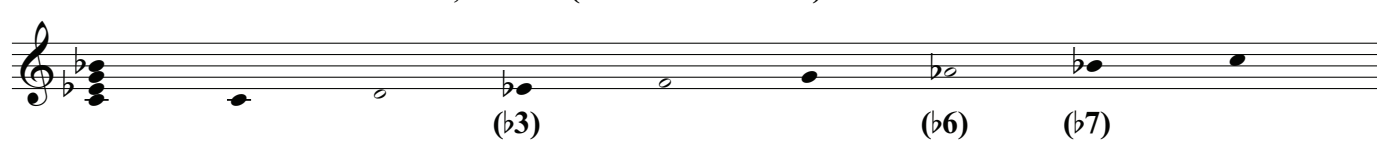
The **7th tone** in the harmonic minor scale is known as a **raised 7th**, or a **major 7th** from the scale root. A **raised 7th scale degree** is also known as a **leading tone**.

Harmonic minor can be described as **Aeolian raised 7th (Aeolian ↑7)**.

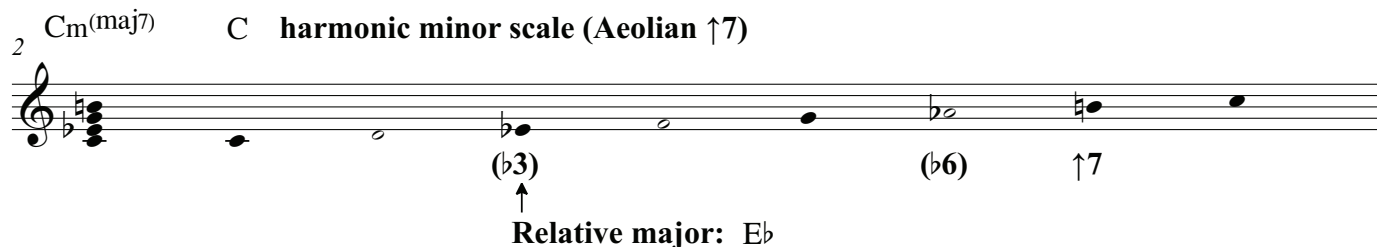
The **harmonic minor scale** generates chord progressions with a great deal of **harmonic tension** due to its **leading tone**, and has a dramatic, "unstable" sound.

(By contrast, the **lowered 7th scale degree** of the natural minor scale does not generate similar harmonic tension. The **natural minor scale** generates the same chords as the **major scale**, and has a bland, "stable" sound.)

Cm⁷ C Aeolian scale; mode i ("Natural minor")



2 Cm^(maj7) C harmonic minor scale (Aeolian ↑7)



Relative major: Eb

The **C harmonic minor scale** is made up of the following notes: [CDE^bFGA^bBC]

Harmonic minor scale degrees are numbered [R2^b345^b67].

The **harmonic minor scale** and its corresponding **natural minor scale** are known as **parallel minor scales**. The **harmonic minor scale** and its **parallel natural minor scale** share the same **relative major scale**.

Example: Eb major and C harmonic minor are relative Major and minor scales.

The third (3rd) note of the **harmonic minor scale** is the first (1st) note of the **relative Major scale**.

The **harmonic minor scale** is not a mode of the major scale.

It is an independent scale with a unique **interval structure**, based on raising the **7th scale degree** of the **natural minor scale**.

1. **E \flat Major** and **C harmonic minor** can be said to be **relative Major and harmonic minor scales**.
2. **C Major (Ionian)** and **C harmonic minor** can be said to be **parallel Major and harmonic minor scales**.
3. Using **Ionian mode (the Major scale)** as our "default" scale, we can draw a qualitative comparison between **Ionian** and **harmonic minor**.

3 $C^{\Delta 7}$ C Ionian scale; mode \flat III ("Major")

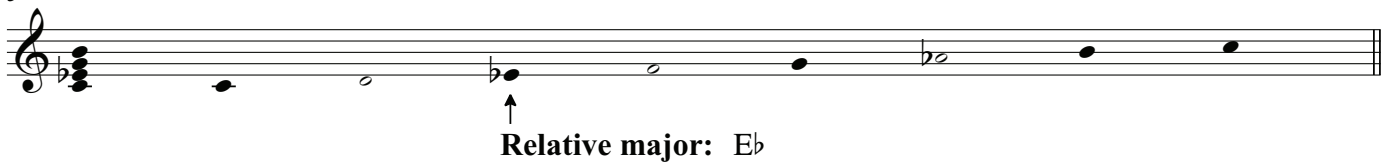
4 $C_m^{(maj7)}$ C harmonic minor scale (Aeolian \uparrow 7)

C Major scale (Ionian mode) and **C harmonic minor scale** are known as **parallel Major and minor scales**.

- 1.1 **C Major (Ionian)** contains the notes **[E]** and **[A]**.
- 1.2 **C harmonic minor** contains the notes **[E \flat]** and **[A \flat]**.
2. **C harmonic minor** is equivalent to **C Major** with a **lowered (\flat)3** and **lowered (\flat)6**.
3. The scale formula for **harmonic minor** is **[\downarrow 3, \downarrow 6]**.

Harmonic minor scales in all keys

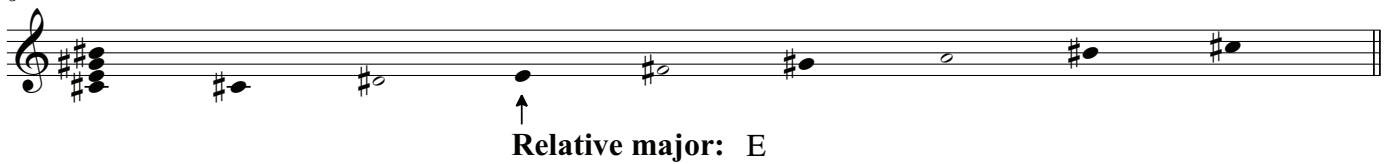
5 Cm(maj7) C harmonic minor scale (Aeolian ↑7)



Relative major: Eb

The image shows the C harmonic minor scale in treble clef. The key signature has two flats (Bb and Eb). The scale notes are C, D, Eb, E, F, G, Ab, C. An upward-pointing arrow is placed under the Eb note, with the text "Relative major: Eb" below it.

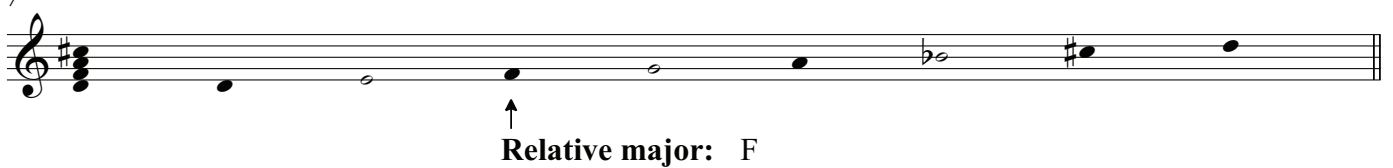
6 C#m(maj7) C# harmonic minor scale (Aeolian ↑7)



Relative major: E

The image shows the C# harmonic minor scale in treble clef. The key signature has three sharps (F#, C#, G#). The scale notes are C#, D#, Eb, E, F#, G#, A, C#. An upward-pointing arrow is placed under the Eb note, with the text "Relative major: E" below it.

7 Dm(maj7) D harmonic minor scale (Aeolian ↑7)



Relative major: F

The image shows the D harmonic minor scale in treble clef. The key signature has two sharps (F# and C#). The scale notes are D, E, F, F#, G, A, Bb, D. An upward-pointing arrow is placed under the F note, with the text "Relative major: F" below it.

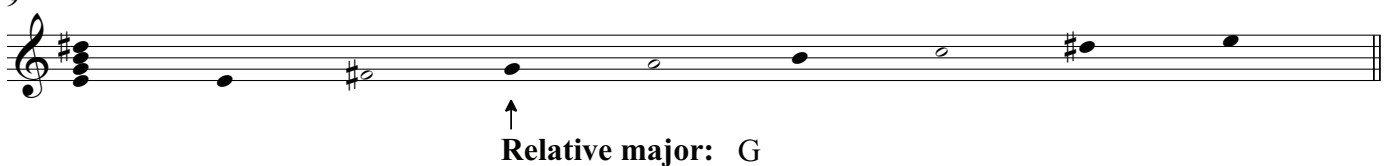
8 Ebm(maj7) Eb harmonic minor scale (Aeolian ↑7)



Relative major: Gb

The image shows the Eb harmonic minor scale in treble clef. The key signature has three flats (Bb, Eb, Ab). The scale notes are Eb, F, G, Ab, Bb, C, Db, Eb. An upward-pointing arrow is placed under the G note, with the text "Relative major: Gb" below it.

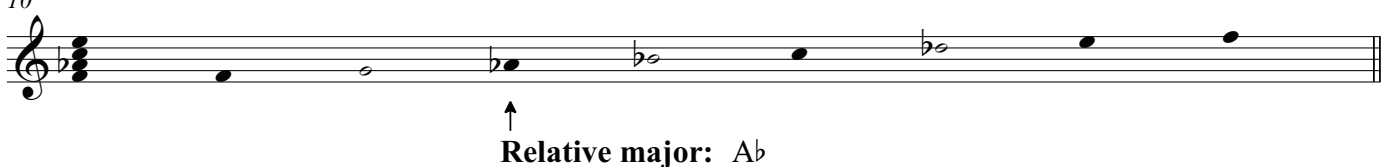
9 Em(maj7) E harmonic minor scale (Aeolian ↑7)



Relative major: G

The image shows the E harmonic minor scale in treble clef. The key signature has one sharp (F#). The scale notes are E, F, G, Ab, B, C, D, E. An upward-pointing arrow is placed under the G note, with the text "Relative major: G" below it.

10 Fm(maj7) F harmonic minor scale (Aeolian ↑7)



Relative major: Ab

The image shows the F harmonic minor scale in treble clef. The key signature has two flats (Bb and Eb). The scale notes are F, G, Ab, A, Bb, C, D, F. An upward-pointing arrow is placed under the Ab note, with the text "Relative major: Ab" below it.

11 **F#m(maj7)** **F# harmonic minor scale (Aeolian ↑7)**

↑
Relative major: A

12 **Gm(maj7)** **G harmonic minor scale (Aeolian ↑7)**

↑
Relative major: Bb

13 **G#m(maj7)** **G# harmonic minor scale (Aeolian ↑7)**

↑
Relative major: B

14 **Am(maj7)** **A harmonic minor scale (Aeolian ↑7)**

↑
Relative major: C

15 **Bbm(maj7)** **Bb harmonic minor scale (Aeolian ↑7)**

↑
Relative major: Db

16 **Bm(maj7)** **B harmonic minor scale (Aeolian ↑7)**

↑
Relative major: D

C harmonic minor scale (Aeolian ↑7)

Relative major: Eb

An interesting feature of the **harmonic minor scale** is that it contains an unusual type of interval between the [b6] and the [7] degrees of the scale. This interval is an **Augmented 2nd [A2]**.

Example: Ab to B is an **Augmented 2nd [Ab-B]**

An **Augmented 2nd [A2]** is enharmonically equivalent to a **minor 3rd [m3]**, meaning it contains the same number of half-steps as a **minor 3rd**, but is spelled alphabetically as a **2nd** from one letter to the next letter.

[A2] = [m3]

Augmented 2nd [A2] - contains 3 half-steps from one letter to the next. **Example:** [Ab-B] = [Ab-A-Bb-B]

C harmonic minor scale (Aeolian ↑7)

2 Melodic 2nds

When we harmonize the **harmonic minor scale**, we get a different succession of **3rds** than when we harmonize the **Major scale**.

The order and quality of **3rds** in the **harmonic minor scale** is very different from the **Major scale** and **natural minor scale**.

C harmonic minor scale (Aeolian ↑7)

3 Melodic 3rds

Relative major: Eb

4 Harmonic 3rds

Relative major: Eb

44 C harmonic minor scale (Aeolian ↑7)

Melodic triads (arpeggios)

5 Cm D° Eb+ Fm G Ab B° Cm

Key: Cm i ii° bIII+ iv V bVI vii° i

Harmonic triads (chords)

6 Cm D° Eb+ Fm G Ab B° Cm

Key: Cm i ii° bIII+ iv V bVI vii° i

minor diminished Augmented minor Major Major diminished minor

The **harmonic minor scale** generates a different series of **Roman numerals** than the **Major scale**.

Harmonizing the **harmonic minor scale** produces a triad type that is not found in the **Major scale**: the **Augmented triad**, which is in the [III+] position and is comprised of two **major 3rds** [M3+M3].

Roman numerals

Harmonic minor scale

i = minor; 1st degree

ii° = diminished; 2nd degree

bIII+ = Augmented; 3rd degree

iv = minor; 4th degree

V = Major; 5th degree

bVI = Major; 6th degree

vii° = diminished; 7th degree

7th arpeggios

Key: Cm i⁷ ii^{ø7} bIII⁷⁺ iv⁷ V⁹ bVI⁷ vii^{ø7} i⁷

7th chords

Key: Cm i⁷ ii^{ø7} bIII⁷⁺ iv⁷ V⁹ bVI⁷ vii^{ø7} i⁷

minor/ major7th	half diminished7th	Augmented Major7th	minor7th	Dominant7th (b9)	Major7th	diminished7th	minor/ major7th
--------------------	-----------------------	-----------------------	----------	---------------------	----------	---------------	--------------------

The **harmonic minor scale** produces three **7th chord** types not found in the **Major scale**:

1. **minor/major 7th** [m3+M3+M3]
2. **Augmented Major7th** [M3+M3+m3] (also known as **Maj7(#5)**)
3. **fully-diminished 7th** [m3+m3+m3]

In addition, the **harmonic minor scale** produces a unique [V] chord extension: the **flatted 9th (b9)**. This can be classified as a fourth type of **7th chord** unique to the **harmonic minor scale**:

4. **Dominant 7(b9)** [M3+m3+m3+m3]

Roman numerals

Harmonic minor scale

- i⁷ = minor/major 7th; 1st degree
- ii^{ø7} = half-diminished 7th; 2nd degree
- bIII⁷⁺ = Augmented Major7th; 3rd degree
- iv⁷ = minor 7th; 4th degree
- V^{7(b9)} = Dominant 7th (b9); 5th degree
- bVI⁷ = Major 7th; 6th degree
- vii^{ø7} = diminished 7th; 7th degree

Harmonic Minor Scale Harmony in all keys

C harmonic minor scale (Aeolian ↑7)

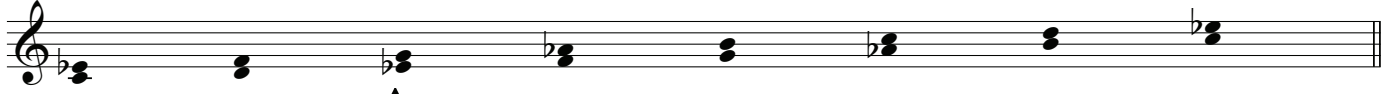
9 Melodic 3rds



m3 m3 ↑ M3 m3 M3 M3 m3 m3

Harmonic 3rds Relative major: Eb

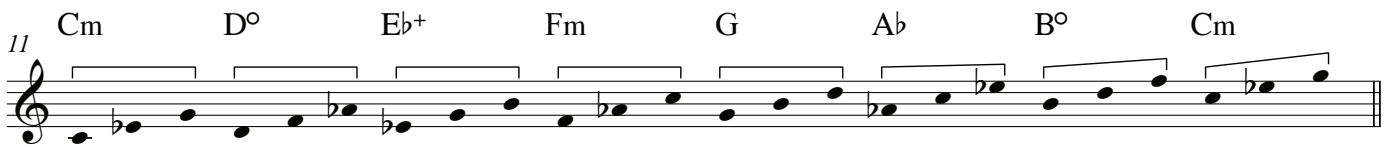
10



m3 m3 ↑ M3 m3 M3 M3 m3 m3

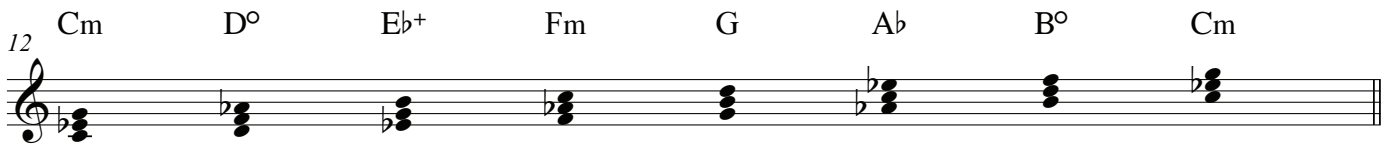
Relative major: Eb

Melodic triads (arpeggios)



Key: Cm i ii° bIII+ iv V bVI vii° i

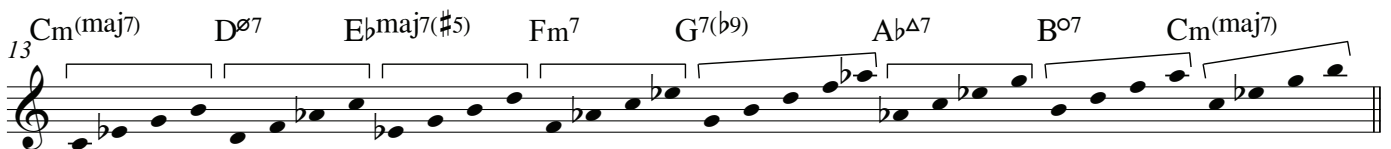
Harmonic triads (chords)



Key: Cm i ii° bIII+ iv V bVI vii° i

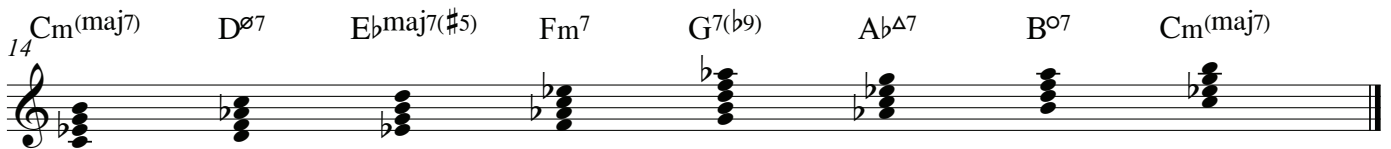
minor diminished Augmented minor Major Major diminished minor

7th arpeggios



Key: Cm i⁷ ii^{°7} bIII⁷⁺ iv⁷ V⁹ bVI⁷ vii^{°7} i⁷

7th chords



Key: Cm i⁷ ii^{°7} bIII⁷⁺ iv⁷ V⁹ bVI⁷ vii^{°7} i⁷

minor/
major7th half
diminished7th Augmented
Major7th minor7th Dominant7th
(b9) Major7th diminished7th minor/
major7th

C# harmonic minor scale (Aeolian ↑7)

15 Melodic 3rds

m3 m3 M3 m3 M3 M3 m3 m3

Harmonic 3rds Relative major: E

16

m3 m3 M3 m3 M3 M3 m3 m3

Relative major: E

Melodic triads (arpeggios)

17 C#m D#° E+ F#m G# A B#° C#m

Key: C#m i ii° bIII+ iv V bVI vii° i

Harmonic triads (chords)

18 C#m D#° E+ F#m G# A B#° C#m

Key: C#m i ii° bIII+ iv V bVI vii° i

minor diminished Augmented minor Major Major diminished minor

7th arpeggios

19 C#m(maj7) D#°7 Emaj7(#5) F#m7 G#7(b9) AΔ7 B#°7 C#m(maj7)

Key: C#m i7 ii°7 bIII7 iv7 V7 bVI7 vii°7 i7

7th chords

20 C#m(maj7) D#°7 Emaj7(#5) F#m7 G#7(b9) AΔ7 B#°7 C#m(maj7)

Key: C#m i7 ii°7 bIII7 iv7 V7 bVI7 vii°7 i7

minor/major7th half diminished7th Augmented Major7th minor7th Dominant7th (b9) Major7th diminished7th minor/major7th

D harmonic minor scale (Aeolian $\uparrow 7$)

21 Melodic 3rds



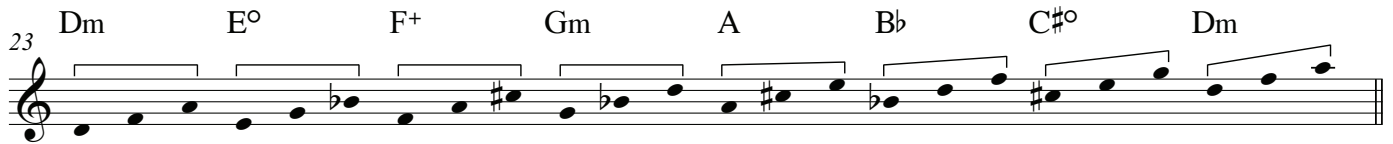
m3 m3 \uparrow M3 m3 M3 M3 m3 m3
 Harmonic 3rds Relative major: F

22



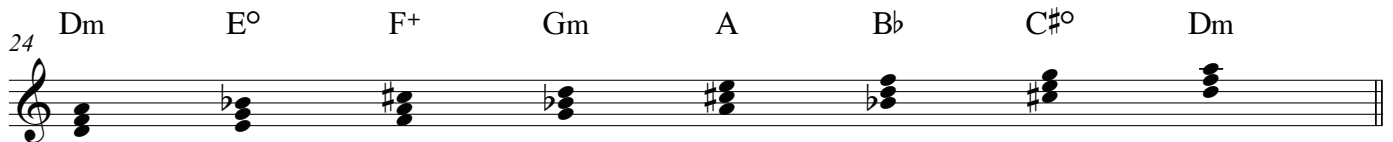
m3 m3 \uparrow M3 m3 M3 M3 m3 m3
 Relative major: F

Melodic triads (arpeggios)



Key: Dm i ii $^\circ$ bIII $^+$ iv V bVI vii $^\circ$ i

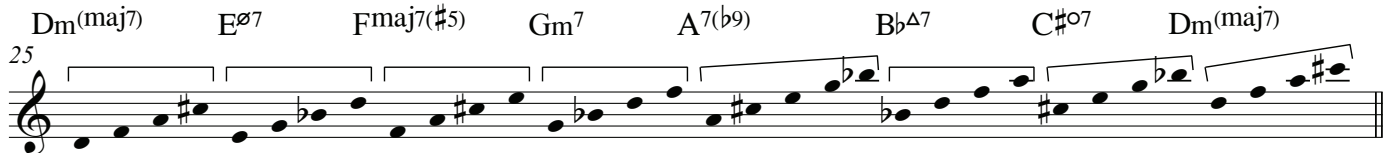
Harmonic triads (chords)



Key: Dm i ii $^\circ$ bIII $^+$ iv V bVI vii $^\circ$ i

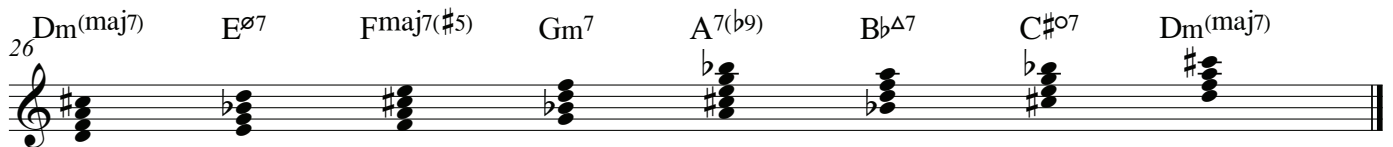
minor diminished Augmented minor Major Major diminished minor

7th arpeggios



Key: Dm i 7 ii o7 bIII $^7_+$ iv 7 V 9_7 bVI 7 vii o7 i 7

7th chords



Key: Dm i 7 ii o7 bIII $^7_+$ iv 7 V 9_7 bVI 7 vii o7 i 7

minor/
major7th half
diminished7th Augmented
Major7th minor7th Dominant7th
(b9) Major7th diminished7th minor/
major7th

E_b harmonic minor scale (Aeolian ↑7)

27 **Melodic 3rds**

m3 m3 M3 m3 M3 M3 m3 m3

Harmonic 3rds Relative major: G^b

28

m3 m3 M3 m3 M3 M3 m3 m3

Relative major: G^b

Melodic triads (arpeggios)

29 E^bm F^o G^{b+} A^bm B^b C^b D^o E^bm

Key: E^bm i ii^o bIII⁺ iv V bVI vii^o i

Harmonic triads (chords)

30 E^bm F^o G^{b+} A^bm B^b C^b D^o E^bm

Key: E^bm i ii^o bIII⁺ iv V bVI vii^o i

minor diminished Augmented minor Major Major diminished minor

7th arpeggios

31 E^bm(maj7) F^{o7} G^bmaj7(#5) A^bm7 B^b7(b9) C^bΔ7 D^{o7} E^bm(maj7)

Key: E^bm i⁷ ii^{o7} bIII⁷⁺ iv⁷ V⁷ bVI⁷ vii^{o7} i⁷

7th chords

32 E^bm(maj7) F^{o7} G^bmaj7(#5) A^bm7 B^b7(b9) C^bΔ7 D^{o7} E^bm(maj7)

Key: E^bm i⁷ ii^{o7} bIII⁷⁺ iv⁷ V⁷ bVI⁷ vii^{o7} i⁷

minor/major7th half diminished7th Augmented Major7th minor7th Dominant7th (b9) Major7th diminished7th minor/major7th

E harmonic minor scale (Aeolian $\uparrow 7$)

33 Melodic 3rds

m3 m3 M3 m3 M3 M3 m3 m3

Relative major: G

34

m3 m3 M3 m3 M3 M3 m3 m3

Relative major: G

Melodic triads (arpeggios)

Em F#^o G⁺ Am B C D#^o Em

Key: Em i ii^o bIII⁺ iv V bVI vii^o i

Harmonic triads (chords)

Em F#^o G⁺ Am B C D#^o Em

Key: Em i ii^o bIII⁺ iv V bVI vii^o i

minor diminished Augmented minor Major Major diminished minor

7th arpeggios

Em(maj7) F#^{o7} Gmaj7(#5) Am⁷ B7(b9) C^{Δ7} D#^{o7} Em(maj7)

Key: Em i⁷ ii^{o7} bIII⁷⁺ iv⁷ V⁹₇ bVI⁷ vii^{o7} i⁷

7th chords

Em(maj7) F#^{o7} Gmaj7(#5) Am⁷ B7(b9) C^{Δ7} D#^{o7} Em(maj7)

Key: Em i⁷ ii^{o7} bIII⁷⁺ iv⁷ V⁹₇ bVI⁷ vii^{o7} i⁷

minor/
major7th half
diminished7th Augmented
Major7th minor7th
Dominant7th
(b9) Major7th diminished7th
minor/
major7th

F harmonic minor scale (Aeolian ↑7)

39 Melodic 3rds

m3 m3 M3 m3 M3 M3 m3 m3
 Harmonic 3rds Relative major: Ab

40

m3 m3 M3 m3 M3 M3 m3 m3
 Relative major: Ab

Melodic triads (arpeggios)

41

Key: Fm i ii° bIII+ iv V bVI vii° i

Harmonic triads (chords)

42

Key: Fm i ii° bIII+ iv V bVI vii° i
 minor diminished Augmented minor Major Major diminished minor

7th arpeggios

43

Key: Fm i⁷ ii^{°7} bIII⁷⁺ iv⁷ V⁷ bVI⁷ vii^{°7} i⁷

7th chords

44

Key: Fm i⁷ ii^{°7} bIII⁷⁺ iv⁷ V⁷ bVI⁷ vii^{°7} i⁷
 minor/major7th half diminished7th Augmented Major7th minor7th Dominant7th (b9) Major7th diminished7th minor/major7th

F# harmonic minor scale (Aeolian ↑7)

45 **Melodic 3rds**

m3 m3 ↑ M3 m3 M3 M3 m3 m3

Relative major: A

Harmonic 3rds

m3 m3 ↑ M3 m3 M3 M3 m3 m3

Relative major: A

Melodic triads (arpeggios)

F#m G#° A+ Bm C# D E#° F#m

Key: F#m i ii° bIII+ iv V bVI vii° i

Harmonic triads (chords)

F#m G#° A+ Bm C# D E#° F#m

Key: F#m i ii° bIII+ iv V bVI vii° i

minor diminished Augmented minor Major Major diminished minor

7th arpeggios

F#m(maj7) G#°7 Amaj7(#5) Bm7 C#7(b9) DΔ7 E#°7 F#m(maj7)

Key: F#m i⁷ ii^{°7} bIII⁷⁺ iv⁷ V^{°7} bVI⁷ vii^{°7} i⁷

7th chords

F#m(maj7) G#°7 Amaj7(#5) Bm7 C#7(b9) DΔ7 E#°7 F#m(maj7)

Key: F#m i⁷ ii^{°7} bIII⁷⁺ iv⁷ V^{°7} bVI⁷ vii^{°7} i⁷

minor/
major7th half
diminished7th Augmented
Major7th minor7th Dominant7th
(b9) Major7th diminished7th minor/
major7th

G harmonic minor scale (Aeolian ↑7)

51 Melodic 3rds

m3 m3 ↑ M3 m3 M3 M3 m3 m3
 Harmonic 3rds Relative major: Bb

52

m3 m3 ↑ M3 m3 M3 M3 m3 m3
 Relative major: Bb

Melodic triads (arpeggios)

53

Key: Gm i ii° bIII+ iv V bVI vii° i

Harmonic triads (chords)

54

Key: Gm i ii° bIII+ iv V bVI vii° i
 minor diminished Augmented minor Major Major diminished minor

7th arpeggios

55

Key: Gm i⁷ ii^{ø7} bIII⁷⁺ iv⁷ V⁹₇ bVI⁷ vii^{ø7} i⁷

7th chords

56

Key: Gm i⁷ ii^{ø7} bIII⁷⁺ iv⁷ V⁹₇ bVI⁷ vii^{ø7} i⁷
 minor/
major7th half
diminished7th Augmented
Major7th minor7th Dominant7th
(b9) Major7th diminished7th minor/
major7th

G# harmonic minor scale (Aeolian ↑7)

57 Melodic 3rds

m3 m3 M3 m3 M3 M3 m3 m3

Harmonic 3rds Relative major: B

m3 m3 M3 m3 M3 M3 m3 m3

Relative major: B

Melodic triads (arpeggios)

G#m A#° B+ C#m D# E Fx° G#m

Key: G#m i ii° bIII+ iv V bVI vii° i

Harmonic triads (chords)

G#m A#° B+ C#m D# E Fx° G#m

Key: G#m i ii° bIII+ iv V bVI vii° i

minor diminished Augmented minor Major Major diminished minor

7th arpeggios

G#m(maj7) A#°7 Bmaj7(#5) C#m7 D#7(b9) EΔ7 Fx°7 G#m(maj7)

Key: G#m i⁷ ii^{°7} bIII⁷⁺ iv⁷ V⁹ bVI⁷ vii^{°7} i⁷

7th chords

G#m(maj7) A#°7 Bmaj7(#5) C#m7 D#7(b9) EΔ7 Fx°7 G#m(maj7)

Key: G#m i⁷ ii^{°7} bIII⁷⁺ iv⁷ V⁹ bVI⁷ vii^{°7} i⁷

minor/major7th half diminished7th Augmented Major7th minor7th Dominant7th (b9) Major7th diminished7th minor/major7th

A harmonic minor scale (Aeolian ↑7)

63 Melodic 3rds

m3 m3 M3 m3 M3 M3 m3 m3

Relative major: C

64 Harmonic 3rds

m3 m3 M3 m3 M3 M3 m3 m3

Relative major: C

Melodic triads (arpeggios)

Am B° C+ Dm E F G#° Am

Key: Am i ii° bIII+ iv V bVI vii° i

Harmonic triads (chords)

Am B° C+ Dm E F G#° Am

Key: Am i ii° bIII+ iv V bVI vii° i

minor diminished Augmented minor Major Major diminished minor

7th arpeggios

Am(maj7) Bø7 Cmaj7(#5) Dm7 E7(b9) FΔ7 G#o7 Am(maj7)

Key: Am i⁷ ii^{ø7} bIII⁷⁺ iv⁷ V⁹₇ bVI⁷ vii^{ø7} i⁷

7th chords

Am(maj7) Bø7 Cmaj7(#5) Dm7 E7(b9) FΔ7 G#o7 Am(maj7)

Key: Am i⁷ ii^{ø7} bIII⁷⁺ iv⁷ V⁹₇ bVI⁷ vii^{ø7} i⁷

minor/major7th half diminished7th Augmented Major7th minor7th Dominant7th (b9) Major7th diminished7th minor/major7th

B \flat harmonic minor scale (Aeolian \uparrow 7)

69 Melodic 3rds

m3 m3 M3 m3 M3 M3 m3 m3

Harmonic 3rds Relative major: D \flat

70

m3 m3 M3 m3 M3 M3 m3 m3

Relative major: D \flat

Melodic triads (arpeggios)

B \flat m C $^\circ$ D \flat ⁺ E \flat m F G \flat A $^\circ$ B \flat m

Key: B \flat m i ii $^\circ$ bIII⁺ iv V bVI vii $^\circ$ i

Harmonic triads (chords)

B \flat m C $^\circ$ D \flat ⁺ E \flat m F G \flat A $^\circ$ B \flat m

Key: B \flat m i ii $^\circ$ bIII⁺ iv V bVI vii $^\circ$ i

minor diminished Augmented minor Major Major diminished minor

7th arpeggios

B \flat m(maj7) C $^\circ$ 7 D \flat maj7(#5) E \flat m7 F7(b9) G \flat Δ7 A $^\circ$ 7 B \flat m(maj7)

Key: B \flat m i⁷ ii $^\circ$ 7 bIII⁷⁺ iv⁷ V^{7°} bVI⁷ vii $^\circ$ 7 i⁷

7th chords

B \flat m(maj7) C $^\circ$ 7 D \flat maj7(#5) E \flat m7 F7(b9) G \flat Δ7 A $^\circ$ 7 B \flat m(maj7)

Key: B \flat m i⁷ ii $^\circ$ 7 bIII⁷⁺ iv⁷ V^{7°} bVI⁷ vii $^\circ$ 7 i⁷

minor/major7th half diminished7th Augmented Major7th minor7th Dominant7th (b9) Major7th diminished7th minor/major7th

B harmonic minor scale (Aeolian ↑7)

75 **Melodic 3rds**

m3 m3 M3 m3 M3 M3 m3 m3

Relative major: D

76

Harmonic 3rds

m3 m3 M3 m3 M3 M3 m3 m3

Relative major: D

Melodic triads (arpeggios)

Bm C#° D+ Em F# G A#° Bm

Key: Bm i ii° bIII+ iv V bVI vii° i

Harmonic triads (chords)

Bm C#° D+ Em F# G A#° Bm

Key: Bm i ii° bIII+ iv V bVI vii° i

minor diminished Augmented minor Major Major diminished minor

7th arpeggios

Bm(maj7) C#°7 Dmaj7(#5) Em7 F#7(b9) GΔ7 A#°7 Bm(maj7)

Key: Bm i⁷ ii^{°7} bIII⁷⁺ iv⁷ V⁹₇ bVI⁷ vii^{°7} i⁷

7th chords

Bm(maj7) C#°7 Dmaj7(#5) Em7 F#7(b9) GΔ7 A#°7 Bm(maj7)

Key: Bm i⁷ ii^{°7} bIII⁷⁺ iv⁷ V⁹₇ bVI⁷ vii^{°7} i⁷

minor/major7th half diminished7th Augmented Major7th minor7th Dominant7th (b9) Major7th diminished7th minor/major7th

Chapter 7- Harmonic Minor Scale Modes (I. Relative)

David M. Shere

In this chapter, we are looking at the modes of the **harmonic minor scale**.

Harmonic minor scale modes can be described as chromatic alterations of **natural minor scale modes**.

Harmonic minor scale modes can be grouped together as 1. **relative modes**, and 2. **parallel modes**.

In this chapter, we will be looking at **harmonic minor scale relative modes**.

C harmonic minor scale (Aeolian ↑7)

R 2 \flat 3 4 5 \flat 6 7

mode i - Aeolian ↑7

mode ii° - Locrian ↑6

mode \flat III - Ionian ↑5

mode iv - Dorian ↑4

mode V - Phrygian ↑3 ("Phrygian Dominant")

mode \flat VI - Lydian ↑2

mode vii° - Locrian ↓4↓7

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

- 1.1 Aeolian ↑7 ("raised 7th") mode is the 1st mode of any **harmonic minor scale**, starting and ending on the root of the scale.
- 1.2 Locrian ↑6 ("raised 6th") mode is the 2nd mode of any **harmonic minor scale**.
- 1.3 Ionian ↑5 ("raised 5th") mode is the 3rd mode of any **harmonic minor scale**.
- 1.4 Dorian ↑4 ("raised 4th") mode is the 4th mode of any **harmonic minor scale**.
- 1.5 Phrygian ↑3 ("raised 3rd," "Phrygian Dominant") mode is the 5th mode of any **harmonic minor scale**.
- 1.6 Lydian ↑2 ("raised 2nd") mode is the 6th mode of any **harmonic minor scale**.
- 1.7 Locrian ↓4↓7 ("lowered 4th/diminished 7th") mode is the 7th mode of any **harmonic minor scale**.

1. Every mode in the previous diagram can be said to be **relative** to the **C harmonic minor scale**.
2. Every mode in the previous diagram has a different **root**, based on its beginning and ending notes within the **C harmonic minor scale**.
3. Each **relative mode** derived from the **harmonic minor scale** corresponds to a specific **7th chord** also derived from the **harmonic minor scale**. The corresponding **chord** and **mode** are based on the same **scale degree**.
4. Notes from the **mode** may be used to improvise melodies over the corresponding **chord**.

² Cm(maj7) C Aeolian ↑7 scale; mode i ("harmonic minor")

↑
Relative major: Eb

Relative Harmonic Minor Scale Modes in all keys

C harmonic minor

3 Cm(maj7) C Aeolian ↑7 scale; mode i ("harmonic minor")

4 D^{ø7} D Locrian ↑6 scale; mode ii^o Ebmaj7(#5) Eb Ionian ↑5 scale; mode bIII

6 Fm7 F Dorian ↑4 scale; mode iv G7(b9) G Phrygian ↑3 scale; mode V

8 Ab^{Δ7} Ab Lydian ↑2 scale; mode bVI B^{o7} B Locrian ↓4↓7 scale; mode vii^o

C# harmonic minor

10 C#m(maj7) C# Aeolian ↑7 scale; mode i ("harmonic minor")

11 D#^{ø7} D# Locrian ↑6 scale; mode ii^o Emaj7(#5) E Ionian ↑5 scale; mode bIII

13 F#m7 F# Dorian ↑4 scale; mode iv G#7(b9) G# Phrygian ↑3 scale; mode V

15 A^{Δ7} A Lydian ↑2 scale; mode bVI B#^{o7} B# Locrian ↓4↓7 scale; mode vii^o

identified as C Locrian ↓4↓7 in Ch. 8

D harmonic minor

17 Dm(maj7) D Aeolian ↑7 scale; mode i ("harmonic minor")

i⁷

18 E^{ø7} E Locrian ↑6 scale; mode ii^o Fmaj7(#5) F Ionian ↑5 scale; mode bIII

ii^{o7} bIII⁷

20 Gm7 G Dorian ↑4 scale; mode iv A7(b9) A Phrygian ↑3 scale; mode V

iv⁷ V^{o7}

22 Bb^{Δ7} Bb Lydian ↑2 scale; mode bVI C#^{o7} C# Locrian ↓4↓7 scale; mode vii^o

bVI⁷ vii^{o7}

E^b harmonic minor

24 Ebm(maj7) E^b Aeolian ↑7 scale; mode i ("harmonic minor")

i⁷

25 F^{ø7} F Locrian ↑6 scale; mode ii^o Gbmaj7(#5) G^b Ionian ↑5 scale; mode bIII

ii^{o7} bIII⁷

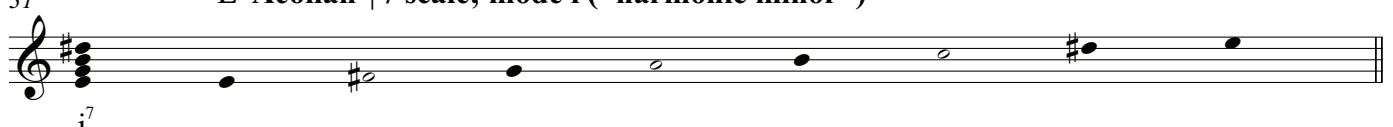
27 Abm7 Ab Dorian ↑4 scale; mode iv Bb7(b9) Bb Phrygian ↑3 scale; mode V


iv⁷ V^{o7}


29 Cb^{Δ7} C^b Lydian ↑2 scale; mode bVI D^{o7} D Locrian ↓4↓7 scale; mode vii^o

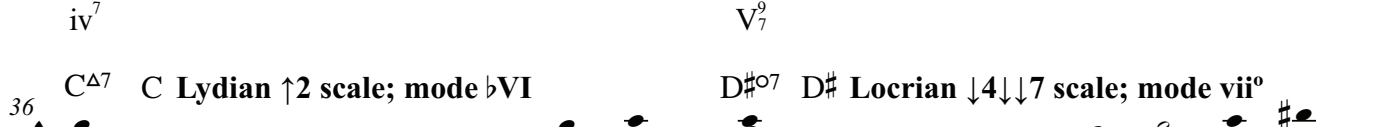
bVI⁷ vii^{o7}

62 **E harmonic minor**


31 **Em(maj7) E Aeolian ↑7 scale; mode i ("harmonic minor")**

*i*⁷


32 **F#^ø7 F# Locrian ↑6 scale; mode ii^o** **Gmaj7(#5) G Ionian ↑5 scale; mode bIII**

ii^{o7} *bIII*⁷


34 **Am⁷ A Dorian ↑4 scale; mode iv** **B7(b9) B Phrygian ↑3 scale; mode V**

*iv*⁷ *V*^{o7}


36 **CΔ⁷ C Lydian ↑2 scale; mode bVI** **D#^o7 D# Locrian ↓4↓↓7 scale; mode vii^o**

*bVI*⁷ *vii*^{o7}

F harmonic minor

38 **Fm(maj7) F Aeolian ↑7 scale; mode i ("harmonic minor")**

*i*⁷

39 **G^ø7 G Locrian ↑6 scale; mode ii^o** **Abmaj7(#5) Ab Ionian ↑5 scale; mode bIII**

ii^{o7} *bIII*⁷

41 **Bbm⁷ Bb Dorian ↑4 scale; mode iv** **C7(b9) C Phrygian ↑3 scale; mode V**

*iv*⁷ *V*^{o7}

43 **DbΔ⁷ Db Lydian ↑2 scale; mode bVI** **E^o7 E Locrian ↓4↓↓7 scale; mode vii^o**

*bVI*⁷ *vii*^{o7}

F# harmonic minor

45 **F#m(maj7) F# Aeolian ↑7 scale; mode i ("harmonic minor")**

*i*⁷

46 **G#ø7 G# Locrian ↑6 scale; mode ii°** **Amaj7(#5) A Ionian ↑5 scale; mode bIII**

ii^{ø7} *bIII*⁷

48 **Bm7 B Dorian ↑4 scale; mode iv** **C#7(b9) C# Phrygian ↑3 scale; mode V**

*iv*⁷ *V*^{ø7}

50 **DΔ7 D Lydian ↑2 scale; mode bVI** **E#ø7 E# Locrian ↓4↓↓7 scale; mode vii°**

*bVI*⁷ *vii*^{ø7}

G harmonic minor

52 **Gm(maj7) G Aeolian ↑7 scale; mode i ("harmonic minor")**

*i*⁷

53 **Aø7 A Locrian ↑6 scale; mode ii°** **Bbmaj7(#5) Bb Ionian ↑5 scale; mode bIII**

ii^{ø7} *bIII*⁷

55 **Cm7 C Dorian ↑4 scale; mode iv** **D7(b9) D Phrygian ↑3 scale; mode V**

*iv*⁷ *V*^{ø7}

57 **EbΔ7 Eb Lydian ↑2 scale; mode bVI** **F#ø7 F# Locrian ↓4↓↓7 scale; mode vii°**

*bVI*⁷ *vii*^{ø7}

64 G# harmonic minor

G#m(maj7) G# Aeolian ↑7 scale; mode i ("harmonic minor")

59

A#ø7 A# Locrian ↑6 scale; mode ii° Bmaj7(#5) B Ionian ↑5 scale; mode bIII

60

C#m7 C# Dorian ↑4 scale; mode iv D#7(b9) D# Phrygian ↑3 scale; mode V

62

EΔ7 E Lydian ↑2 scale; mode bVI Fxø7 Fx Locrian ↓4↓↓7 scale; mode vii°

64

A harmonic minor

Am(maj7) A Aeolian ↑7 scale; mode i ("harmonic minor")

66

Bø7 B Locrian ↑6 scale; mode ii° Cmaj7(#5) C Ionian ↑5 scale; mode bIII

67

Dm7 D Dorian ↑4 scale; mode iv E7(b9) E Phrygian ↑3 scale; mode V

69

FΔ7 F Lydian ↑2 scale; mode bVI G#ø7 G# Locrian ↓4↓↓7 scale; mode vii°

71

B \flat harmonic minor

73 B \flat m(maj7) B \flat Aeolian \uparrow 7 scale; mode i ("harmonic minor")

74 C \emptyset ⁷ C Locrian \uparrow 6 scale; mode ii $^\circ$ D \flat maj7(#5) D \flat Ionian \uparrow 5 scale; mode bIII

76 E \flat m⁷ E \flat Dorian \uparrow 4 scale; mode iv F^{7(b9)} F Phrygian \uparrow 3 scale; mode V

78 G \flat Δ ⁷ G \flat Lydian \uparrow 2 scale; mode bVI A $^\circ$ ⁷ A Locrian \downarrow 4 \downarrow 7 scale; mode vii $^\circ$

i⁷ ii $^\circ$ ⁷ bIII $^\circ$ ⁷ iv⁷ V $^\circ$ ⁷ bVI $^\circ$ ⁷ vii $^\circ$ ⁷

B harmonic minor

80 Bm(maj7) B Aeolian \uparrow 7 scale; mode i ("harmonic minor")

81 C \sharp \emptyset ⁷ C \sharp Locrian \uparrow 6 scale; mode ii $^\circ$ Dmaj7(#5) D Ionian \uparrow 5 scale; mode bIII

83 E \flat m⁷ E Dorian \uparrow 4 scale; mode iv F \sharp ^{7(b9)} F \sharp Phrygian \uparrow 3 scale; mode V

85 G Δ ⁷ G Lydian \uparrow 2 scale; mode bVI A $^\circ$ ⁷ A \sharp Locrian \downarrow 4 \downarrow 7 scale; mode vii $^\circ$

i⁷ ii $^\circ$ ⁷ bIII $^\circ$ ⁷ iv⁷ V $^\circ$ ⁷ bVI $^\circ$ ⁷ vii $^\circ$ ⁷

Chapter 8- Harmonic Minor Scale Modes (II. Parallel)

David M. Shere

In this chapter, we will be looking at the **parallel modes** of the **harmonic minor scale**.

Parallel harmonic minor modes are based on **natural minor modes**.

Parallel harmonic minor modes can be best described as **chromatic alterations** of **natural minor modes**.

Consider the scales **C Ionian** and **C Aeolian $\uparrow 7$** :

The image shows two musical staves in treble clef. The first staff is for the C Ionian scale, labeled 'C Ionian scale; mode \flat III ("Major")'. It starts with a C Δ 7 chord and shows the notes C, D, E, F, G, A, B. The second staff is for the C Aeolian $\uparrow 7$ scale, labeled 'C Aeolian $\uparrow 7$ scale; mode i ("harmonic minor")'. It starts with a Cm(maj7) chord and shows the notes C, D, E \flat , F, G, A \flat , B. The lowered notes E \flat and A \flat are marked with '3' and '6' respectively, with downward arrows indicating they are lowered from the natural scale.

a. **C Ionian mode** and **C Aeolian $\uparrow 7$ mode** are **parallel scales**, sharing the **root note C**.

1. **C Ionian** contains the notes [E] and [A].
2. **C Aeolian $\uparrow 7$** contains the notes [E \flat] and [A \flat].
3. **C Aeolian $\uparrow 7$ mode** is equivalent to **C Ionian mode** with a **lowered (\flat)3** and **lowered (\flat)6**.
4. The **scale formula** for **Aeolian $\uparrow 7$ mode** is [$\downarrow 3, \downarrow 6$].

3 C^{Δ7} C Ionian scale; mode \flat III ("Major")

\flat III⁷

4 C^{ø7} C Locrian \uparrow 6 scale; mode ii^o

ii^{o7} \downarrow 2 \downarrow 3 \downarrow 5 \downarrow 7

b. C Ionian mode and C Locrian \uparrow 6 mode are parallel scales.

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

1.2 C Locrian \uparrow 6 contains the notes [D \flat],[E \flat],[G \flat] and [B \flat].

2. C Locrian \uparrow 6 mode is equivalent to C Ionian mode with a

lowered (\flat)2, lowered (\flat)3,
lowered (\flat)5, and lowered (\flat)7.

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

5 C^{Δ7} C Ionian scale; mode \flat III ("Major")

\flat III⁷

6 C^{maj7(#5)} C Ionian \uparrow 5 scale; mode \flat III

\flat III⁷ \uparrow 5

c. C Ionian mode and C Ionian \uparrow 5 mode are parallel scales.

1.1 C Ionian contains the note [G].

1.2 C Ionian \uparrow 5 contains the note [G \sharp].

2. C Ionian \uparrow 5 mode is equivalent to C Ionian mode with a

raised (\sharp)5.

3. The scale formula for Ionian \uparrow 5 mode is [\uparrow 5].

68

7 C^{Δ7} C **Ionian scale; mode \flat III ("Major")**

8 Cm⁷ C **Dorian \uparrow 4 scale; mode iv**

d. **C Ionian mode and C Dorian \uparrow 4 mode are parallel scales.**

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

1.2 **C Dorian \uparrow 4** contains the notes [Eb],[F#] and [Bb].

2. **C Dorian \uparrow 4 mode** is equivalent to **C Ionian mode** with a

lowered (\flat)3,

raised (\sharp)4, and lowered (\flat)7.

3 **The scale formula for Dorian \uparrow 4 mode is [\downarrow 3, \uparrow 4, \downarrow 7].**

9 C^{Δ7} C **Ionian scale; mode \flat III ("Major")**

10 C^{7(b9)} C **Phrygian \uparrow 3 scale; mode V**

e. **C Ionian mode and C Phrygian \uparrow 3 mode are parallel scales.**

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

1.2 **C Phrygian \uparrow 3** contains the notes [Db],[Ab] and [Bb].

2. **C Phrygian \uparrow 3 mode** is equivalent to **C Ionian mode** with a

lowered (\flat)2,

lowered (\flat)6, and lowered (\flat)7.

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

11 C^{Δ7} C **Ionian scale; mode \flat III ("Major")**

\flat III⁷

12 C^{Δ7} C **Lydian \uparrow 2 scale; mode \flat VI**

\flat VI⁷ \uparrow 2 \uparrow 4

e. **C Ionian mode** and **C Lydian \uparrow 2 mode** are parallel scales.

1.1 **C Ionian** contains the notes [D] and [F].

1.2 **C Lydian \uparrow 2** contains the notes [D#] and [F#].

2. **C Lydian \uparrow 2 mode** is equivalent to **C Ionian mode** with a raised (#)2, and raised (#)4.

3 The scale formula for **Lydian \uparrow 2 mode** is [\uparrow 2, \uparrow 4].

C^{Δ7} C **Ionian scale; mode \flat III ("Major")**

\flat III⁷

14 C^{o7} C **Locrian \downarrow 4 \downarrow 7 scale; mode vii^o**

vii^{o7} \downarrow 2 \downarrow 3 \downarrow 4 \downarrow 5 \downarrow 6 $\downarrow\downarrow$ 7

d. **C Ionian mode** and **C Locrian \downarrow 4 \downarrow 7 mode** are parallel scales.

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

1.2 **C Locrian \downarrow 4 \downarrow 7** contains the notes [D \flat],[E \flat],[F \flat],[G \flat],[A \flat] and [B $\flat\flat$].

2. **C Locrian \downarrow 4 \downarrow 7 mode** is equivalent to **C Ionian mode** with a

lowered (\flat)2, lowered (\flat)3, lowered (\flat)4,

lowered (\flat)5, lowered (\flat)6, and diminished ($\flat\flat$)7.

3. The scale formula for **Locrian \downarrow 4 \downarrow 7 mode** is [\downarrow 2, \downarrow 3, \downarrow 4, \downarrow 5, \downarrow 6, $\downarrow\downarrow$ 7].

g. SUMMARY of parallel harmonic minor mode formulas:

1.1 **Aeolian** $\uparrow 7 = [\downarrow 3, \downarrow 6]$

1.2 **Locrian** $\uparrow 6 = [\downarrow 2, \downarrow 3, \downarrow 5, \downarrow 7]$

1.3 **Ionian** $\uparrow 5 = [\uparrow 5]$

1.4 **Dorian** $\uparrow 4 = [\downarrow 3, \uparrow 4, \downarrow 7]$

1.5 **Phrygian** $\uparrow 3 = [\downarrow 2, \downarrow 6, \downarrow 7]$

1.6 **Lydian** $\uparrow 2 = [\uparrow 2, \uparrow 4]$

1.7 **Locrian** $\downarrow 4 \downarrow \downarrow 7 = [\downarrow 2, \downarrow 3, \downarrow 4, \downarrow 5, \downarrow 6, \downarrow \downarrow 7]$

Parallel Harmonic Minor Scale Modes in all keys

C root

16 Cm(maj7) C Aeolian ↑7 scale; mode i ("harmonic minor")

17 C^ø7 C Locrian ↑6 scale; mode ii^o Cmaj7(#5) C Ionian ↑5 scale; mode bIII

19 Cm7 C Dorian ↑4 scale; mode iv C7(b9) C Phrygian ↑3 scale; mode V

21 CΔ7 C Lydian ↑2 scale; mode bVI C^o7 C Locrian ↓4↓7 scale; mode vii^o

C#root

23 C#m(maj7) C# Aeolian ↑7 scale; mode i ("harmonic minor")

24 C#^ø7 C# Locrian ↑6 scale; mode ii^o Dbmaj7(#5) Db Ionian ↑5 scale; mode bIII

26 C#m7 C# Dorian ↑4 scale; mode iv C#7(b9) C# Phrygian ↑3 scale; mode V

28 C#Δ7 C# Lydian ↑2 scale; mode bVI C#^o7 C# Locrian ↓4↓7 scale; mode vii^o

D root

30 **Dm(maj7) D Aeolian ↑7 scale; mode i ("harmonic minor")**

31 **D^{ø7} D Locrian ↑6 scale; mode ii°** **Dmaj7(#5) D Ionian ↑5 scale; mode bIII**

33 **Dm7 D Dorian ↑4 scale; mode iv** **D7(b9) D Phrygian ↑3 scale; mode V**

35 **D^{Δ7} D Lydian ↑2 scale; mode bVI** **D^{ø7} D Locrian ↓4↓7 scale; mode vii°**

Eb root

37 **Ebm(maj7) Eb Aeolian ↑7 scale; mode i ("harmonic minor")**

38 **D#^{ø7} D# Locrian ↑6 scale; mode ii°** **Ebmaj7(#5) Eb Ionian ↑5 scale; mode bIII**

40 **Ebm7 Eb Dorian ↑4 scale; mode iv** **Eb7(b9) Eb Phrygian ↑3 scale; mode V**

42 **Eb^{Δ7} Eb Lydian ↑2 scale; mode bVI** **D#^{ø7} D# Locrian ↓4↓7 scale; mode vii°**

E root

44 $E_{m(maj7)}$ E **Aeolian $\uparrow 7$ scale; mode i ("harmonic minor")**

i^7 $\downarrow 3$ $\downarrow 6$

45 $E\emptyset^7$ E **Locrian $\uparrow 6$ scale; mode ii $^\circ$** $E_{maj7(\#5)}$ E **Ionian $\uparrow 5$ scale; mode $\flat III$**

$ii^{\circ 7}$ $\downarrow 2$ $\downarrow 3$ $\downarrow 5$ $\downarrow 7$ $\flat III^7_+$ $\uparrow 5$

47 E_{m7} E **Dorian $\uparrow 4$ scale; mode iv** $E7(\flat 9)$ E **Phrygian $\uparrow 3$ scale; mode V**

iv^7 $\downarrow 3$ $\uparrow 4$ $\downarrow 7$ V^9_7 $\downarrow 2$ $\downarrow 6$ $\downarrow 7$

49 $E^{\Delta 7}$ E **Lydian $\uparrow 2$ scale; mode $\flat VI$** $E\emptyset^7$ E **Locrian $\downarrow 4 \downarrow 7$ scale; mode vii $^\circ$**

$\flat VI^7$ $\uparrow 2$ $\uparrow 4$ $vii^{\circ 7}$ $\downarrow 2$ $\downarrow 3$ $\downarrow 4$ $\downarrow 5$ $\downarrow 6$ $\downarrow \downarrow 7$

F root

51 $F_{m(maj7)}$ F **Aeolian $\uparrow 7$ scale; mode i ("harmonic minor")**

i^7 $\downarrow 3$ $\downarrow 6$

52 $F\emptyset^7$ F **Locrian $\uparrow 6$ scale; mode ii $^\circ$** $F_{maj7(\#5)}$ F **Ionian $\uparrow 5$ scale; mode $\flat III$**

$ii^{\circ 7}$ $\downarrow 2$ $\downarrow 3$ $\downarrow 5$ $\downarrow 7$ $\flat III^7_+$ $\uparrow 5$

54 F_{m7} F **Dorian $\uparrow 4$ scale; mode iv** $F7(\flat 9)$ F **Phrygian $\uparrow 3$ scale; mode V**

iv^7 $\downarrow 3$ $\uparrow 4$ $\downarrow 7$ V^9_7 $\downarrow 2$ $\downarrow 6$ $\downarrow 7$

56 $F^{\Delta 7}$ F **Lydian $\uparrow 2$ scale; mode $\flat VI$** $F\emptyset^7$ F **Locrian $\downarrow 4 \downarrow 7$ scale; mode vii $^\circ$**

$\flat VI^7$ $\uparrow 2$ $\uparrow 4$ $vii^{\circ 7}$ $\downarrow 2$ $\downarrow 3$ $\downarrow 4$ $\downarrow 5$ $\downarrow 6$ $\downarrow \downarrow 7$

F#root

58 F#m(maj7) F# Aeolian ↑7 scale; mode i ("harmonic minor")

i^7 ↓3 ↓6

59 F#^o7 F# Locrian ↑6 scale; mode ii^o F#maj7(#5) F# Ionian ↑5 scale; mode \flat III

ii^{o7} ↓2 ↓3 ↓5 ↓7 $\flat III^7$ ↑5

61 F#m7 F# Dorian ↑4 scale; mode iv F#7(b9) F# Phrygian ↑3 scale; mode V

iv^7 ↓3 ↑4 ↓7 $V_7^{\flat 9}$ ↓2 ↓6 ↓7

63 F# Δ 7 F# Lydian ↑2 scale; mode \flat VI F#^o7 F# Locrian ↓4↓7 scale; mode vii^o

$\flat VI^7$ ↑2 ↑4 vii^{o7} ↓2 ↓3 ↓4 ↓5 ↓6 ↓↓7

G root

65 Gm(maj7) G Aeolian ↑7 scale; mode i ("harmonic minor")

i^7 ↓3 ↓6

66 G^o7 G Locrian ↑6 scale; mode ii^o Gmaj7(#5) G Ionian ↑5 scale; mode \flat III

ii^{o7} ↓2 ↓3 ↓5 ↓7 $\flat III^7$ ↑5

68 Gm7 G Dorian ↑4 scale; mode iv G7(b9) G Phrygian ↑3 scale; mode V

iv^7 ↓3 ↑4 ↓7 $V_7^{\flat 9}$ ↓2 ↓6 ↓7

70 G Δ 7 G Lydian ↑2 scale; mode \flat VI G^o7 G Locrian ↓4↓7 scale; mode vii^o

$\flat VI^7$ ↑2 ↑4 vii^{o7} ↓2 ↓3 ↓4 ↓5 ↓6 ↓↓7

G#root

72 G#m(maj7) G# Aeolian ↑7 scale; mode i ("harmonic minor")

i⁷ ↓3 ↓6

73 G#^ø7 G# Locrian ↑6 scale; mode ii^o A^bmaj7(#5) A^b Ionian ↑5 scale; mode ^bIII

ii^o7 ↓2 ↓3 ↓5 ↓7 bIII⁷ ↑5

75 G#m⁷ G# Dorian ↑4 scale; mode iv G#⁷(b9) G# Phrygian ↑3 scale; mode V

iv⁷ ↓3 ↑4 ↓7 V⁷ ↓2 ↓6 ↓7

77 A^bΔ⁷ A^b Lydian ↑2 scale; mode ^bVI G#^o7 G# Locrian ↓4↓7 scale; mode vii^o

bVI⁷ ↑2 ↑4 vii^o7 ↓2 ↓3 ↓4 ↓5 ↓6 ↓↓7

A root

79 Am(maj7) A Aeolian ↑7 scale; mode i ("harmonic minor")

i⁷ ↓3 ↓6

80 A^ø7 A Locrian ↑6 scale; mode ii^o A^{maj7}(#5) A Ionian ↑5 scale; mode ^bIII

ii^o7 ↓2 ↓3 ↓5 ↓7 bIII⁷ ↑5

82 Am⁷ A Dorian ↑4 scale; mode iv A⁷(b9) A Phrygian ↑3 scale; mode V

iv⁷ ↓3 ↑4 ↓7 V⁷ ↓2 ↓6 ↓7

84 A^Δ7 A Lydian ↑2 scale; mode ^bVI A^o7 A Locrian ↓4↓7 scale; mode vii^o

bVI⁷ ↑2 ↑4 vii^o7 ↓2 ↓3 ↓4 ↓5 ↓6 ↓↓7

B \flat root

86 **B \flat m(maj7)** B \flat **Aeolian \uparrow 7 scale; mode i ("harmonic minor")**

i^7 \downarrow 3 \downarrow 6

87 **A \sharp \emptyset^7** **A \sharp Locrian \uparrow 6 scale; mode ii $^\circ$** **B \flat maj7(\sharp 5)** B \flat **Ionian \uparrow 5 scale; mode \flat III**

$ii^{\emptyset 7}$ \downarrow 2 \downarrow 3 \downarrow 5 \downarrow 7 $bIII^7$ \uparrow 5

89 **B \flat m 7** B \flat **Dorian \uparrow 4 scale; mode iv** **B \flat 7(\flat 9)** B \flat **Phrygian \uparrow 3 scale; mode V**

iv^7 \downarrow 3 \uparrow 4 \downarrow 7 V^7 \downarrow 2 \downarrow 6 \downarrow 7

91 **B \flat Δ^7** B \flat **Lydian \uparrow 2 scale; mode \flat VI** **A \sharp \emptyset^7** **A \sharp Locrian \downarrow 4 \downarrow 7 scale; mode vii $^\circ$**

bVI^7 \uparrow 2 \uparrow 4 $vii^{\emptyset 7}$ \downarrow 2 \downarrow 3 \downarrow 4 \downarrow 5 \downarrow 6 \downarrow 7

B root

93 **Bm(maj7)** B **Aeolian \uparrow 7 scale; mode i ("harmonic minor")**

i^7 \downarrow 3 \downarrow 6

94 **B \emptyset^7** B **Locrian \uparrow 6 scale; mode ii $^\circ$** **Bmaj7(\sharp 5)** B **Ionian \uparrow 5 scale; mode \flat III**

$ii^{\emptyset 7}$ \downarrow 2 \downarrow 3 \downarrow 5 \downarrow 7 $bIII^7$ \uparrow 5

96 **Bm 7** B **Dorian \uparrow 4 scale; mode iv** **B7(\flat 9)** B **Phrygian \uparrow 3 scale; mode V**

iv^7 \downarrow 3 \uparrow 4 \downarrow 7 V^7 \downarrow 2 \downarrow 6 \downarrow 7

98 **B Δ^7** B **Lydian \uparrow 2 scale; mode \flat VI** **B \emptyset^7** B **Locrian \downarrow 4 \downarrow 7 scale; mode vii $^\circ$**

bVI^7 \uparrow 2 \uparrow 4 $vii^{\emptyset 7}$ \downarrow 2 \downarrow 3 \downarrow 4 \downarrow 5 \downarrow 6 \downarrow 7

Chapter 9- The Melodic Minor Scale


In this chapter, we will be studying the **melodic minor scale**.

Traditionally, the **melodic minor scale** is a compositional device with an **ascending** version and a **descending** version.

The **ascending** version of the **melodic minor** has a **raised 6th** and a **raised 7th**, similar to the **Major scale**.

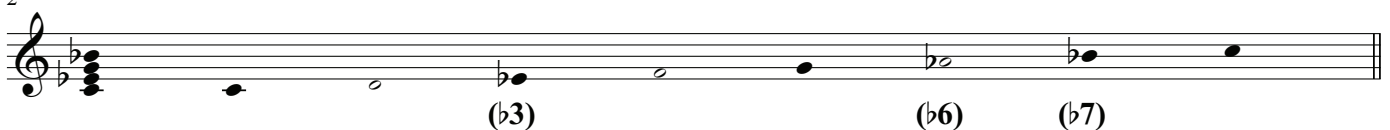
The **descending** version of the **melodic minor** is identical to the **natural minor**, with a **lowered 6th** and **lowered 7th**.

Cm^(maj7) C **melodic minor scale (traditional)**



In jazz theory, the **melodic minor** is the same both **ascending** and **descending**, with a **raised 6th** and **raised 7th** in both directions. This is also known as the "**jazz minor**" scale.

2 Cm⁷ C **Aeolian scale; mode i ("Natural minor")**



3 Cm^(maj7) C **melodic minor scale ("Jazz minor")**



The **C melodic minor scale** is made up of the following notes: [CDE^bFGABC]

Melodic minor scale degrees are numbered [R2^b34567].

The **melodic minor scale** and its corresponding **natural minor scale** are known as **parallel minor scales**. The **melodic minor scale** and its **parallel natural minor scale** share the same **relative major scale**.

Example: E^b major and C melodic minor are **relative Major and minor scales**.

The third (3rd) note of the **melodic minor scale** is the first (1st) note of the **relative Major scale**.

The **melodic minor scale** is not a mode of the major scale.

It is an independent scale with a unique **interval structure**, based on raising the **6th** and **7th** scale degrees of the **natural minor scale**.

1. **E \flat Major** and **C melodic minor** can be said to be **relative Major and melodic minor scales**.
2. **C Major (Ionian)** and **C melodic minor** can be said to be **parallel Major and melodic minor scales**.
3. Using **Ionian mode (the Major scale)** as our "default" scale, we can draw a qualitative comparison between **Ionian** and **melodic minor**.

4 $C^{\Delta 7}$ C Ionian scale; mode $\flat III$ ("Major")

5 $C_m^{(maj7)}$ C melodic minor scale (Ionian $\downarrow 3$)

C Major scale (Ionian mode) and **C melodic minor scale** are known as **parallel Major and minor scales**.

- 1.1 **C Major (Ionian)** contains the note [E].
- 1.2 **C melodic minor** contains the note [E \flat].

2. **C melodic minor** is equivalent to **C Major** with a **lowered (\flat)3**.

3. The scale formula for **melodic minor** is [$\downarrow 3$].

Melodic minor scales in all keys

6 Cm(maj7) C melodic minor scale (Ionian ↓3)

Relative major: Eb

The musical staff shows the C melodic minor scale in treble clef. The key signature has two flats (Bb and Eb). The scale notes are C, D, Eb, F, G, Ab, Bb, C. An upward-pointing arrow is positioned below the Eb note, with the text "Relative major: Eb" centered below the arrow.

7 C#m(maj7) C# melodic minor scale (Ionian ↓3)

Relative major: E

The musical staff shows the C# melodic minor scale in treble clef. The key signature has three sharps (F#, C#, G#). The scale notes are C#, D#, Eb, F#, G#, Ab, B, C#. An upward-pointing arrow is positioned below the Eb note, with the text "Relative major: E" centered below the arrow.

8 Dm(maj7) D melodic minor scale (Ionian ↓3)

Relative major: F

The musical staff shows the D melodic minor scale in treble clef. The key signature has two sharps (F# and C#). The scale notes are D, E, F, G, A, Bb, C, D. An upward-pointing arrow is positioned below the F note, with the text "Relative major: F" centered below the arrow.

9 Ebm(maj7) Eb melodic minor scale (Ionian ↓3)

Relative major: Gb

The musical staff shows the Eb melodic minor scale in treble clef. The key signature has three flats (Bb, Eb, Ab). The scale notes are Eb, F, G, Ab, Bb, C, D, Eb. An upward-pointing arrow is positioned below the G note, with the text "Relative major: Gb" centered below the arrow.

10 Em(maj7) E melodic minor scale (Ionian ↓3)

Relative major: G

The musical staff shows the E melodic minor scale in treble clef. The key signature has three sharps (F#, C#, G#). The scale notes are E, F, G, Ab, B, C, D, E. An upward-pointing arrow is positioned below the G note, with the text "Relative major: G" centered below the arrow.

11 Fm(maj7) F melodic minor scale (Ionian ↓3)

Relative major: Ab

The musical staff shows the F melodic minor scale in treble clef. The key signature has two flats (Bb and Eb). The scale notes are F, G, Ab, Bb, C, D, Eb, F. An upward-pointing arrow is positioned below the Ab note, with the text "Relative major: Ab" centered below the arrow.

12 $F\#m^{(maj7)}$ $F\#$ melodic minor scale (Ionian $\downarrow 3$)

↑
Relative major: A

13 $Gm^{(maj7)}$ G melodic minor scale (Ionian $\downarrow 3$)

↑
Relative major: B \flat

14 $G\#m^{(maj7)}$ $G\#$ melodic minor scale (Ionian $\downarrow 3$)

↑
Relative major: B

15 $Am^{(maj7)}$ A melodic minor scale (Ionian $\downarrow 3$)

↑
Relative major: C

16 $Bbm^{(maj7)}$ $B\flat$ melodic minor scale (Ionian $\downarrow 3$)

↑
Relative major: D \flat

17 $Bm^{(maj7)}$ B melodic minor scale (Ionian $\downarrow 3$)

↑
Relative major: D

C melodic minor scale (Ionian ↓3)

A musical staff in treble clef showing the C melodic minor scale (Ionian ↓3). The notes are C, D, E♭, F, G, A♭, B♭, C. Fingerings are indicated below the notes: R (1st), 2 (2nd), ↑b3 (3rd), 4 (4th), 5 (5th), 6 (6th), 7 (7th), R (8th). An upward arrow points to the 3rd note (E♭) with the label 'b3'. Below the staff, it says 'Relative major: Eb'.

An interesting feature of the **melodic minor scale** is that it contains predominantly **Major 2nds [M2]**.

C melodic minor scale (Ionian ↓3)

2 Melodic 2nds

A musical staff in treble clef showing the C melodic minor scale (Ionian ↓3) with intervals between notes labeled below. The intervals are: M2 (C-D), m2 (D-E♭), M2 (E♭-F), M2 (F-G), M2 (G-A♭), M2 (A♭-B♭), m2 (B♭-C).

When we harmonize the **melodic minor scale**, we get a different succession of **3rds** than when we harmonize the **Major scale**.

The order and quality of **3rds** in the **melodic minor scale** is very different from the **Major scale** and **natural minor scale**.

C melodic minor scale (Ionian ↓3)

3 Melodic 3rds

A musical staff in treble clef showing the C melodic minor scale (Ionian ↓3) with intervals between notes labeled below. The intervals are: m3 (C-E♭), m3 (E♭-G), M3 (G-B♭), M3 (B♭-D), M3 (D-F), M3 (F-A♭), m3 (A♭-C), m3 (C-E♭). An upward arrow points to the 3rd note (E♭) with the label 'M3'. Below the staff, it says 'Relative major: Eb'.

4 Harmonic 3rds

A musical staff in treble clef showing the C melodic minor scale (Ionian ↓3) with harmonic intervals between notes labeled below. The intervals are: m3 (C-E♭), m3 (E♭-G), M3 (G-B♭), M3 (B♭-D), M3 (D-F), M3 (F-A♭), m3 (A♭-C), m3 (C-E♭). An upward arrow points to the 3rd note (E♭) with the label 'M3'. Below the staff, it says 'Relative major: Eb'.

82 C melodic minor scale (Ionian ↓3)

Melodic triads (arpeggios)

5 Cm Dm Eb⁺ F G A[°] B[°] Cm

Key: Cm i ii \flat III⁺ IV V vi[°] vii[°] i

Harmonic triads (chords)

6 Cm Dm Eb⁺ F G A[°] B[°] Cm

Key: Cm i ii \flat III⁺ IV V vi[°] vii[°] i

minor minor Augmented Major Major diminished diminished minor

The **melodic minor scale** generates a different series of **Roman numerals** than the **Major scale**.

Harmonizing the **melodic minor scale** produces a triad type that is not found in the **Major scale**: the **Augmented triad**, which is in the [III⁺] position and is comprised of two **major 3rds** [M3+M3].

(As seen in Ch. 6, the **Augmented triad** is also produced by the **harmonic minor scale**).

Harmonizing the **melodic minor scale** also produces **minor triads** in the [i] and [ii] positions, **Major triads** in the [IV] and [V] positions, and **diminished triads** in the [vi] and [vii] positions.

Roman numerals

Melodic minor scale

- i = minor; 1st degree
- ii = minor; 2nd degree
- \flat III⁺ = Augmented; 3rd degree
- IV = Major; 4th degree
- V = Major; 5th degree
- vi[°] = diminished; 6th degree
- vii[°] = diminished; 7th degree

7th arpeggios

Key: Cm i⁷ ii⁷ bIII⁷ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

7th chords

Key: Cm i⁷ ii⁷ bIII⁷ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

minor/ major7th	minor7th	Augmented Major7th	Dom.7th	Dom.7th	half dim.7th	half dim.7th	minor/ major7th
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The **melodic minor scale** produces two **7th chord** types not found in the **Major scale** (both of which may also be found in the **harmonic minor scale**):

1. **minor/major 7th** [m3+M3+M3]
2. **Augmented Major7th** [M3+M3+m3] (also known as **Maj7(#5)**)

In addition, the **melodic minor scale** produces **Dominant 7th chords** in both the [IV] and [V] positions, and **half-diminished 7th chords** in both the [vi] and [vii] positions.

The presence of two **Dominant 7th chords** gives the **melodic minor scale** unique harmonic properties.

Roman numerals

Melodic minor scale

- i⁷ = minor/major 7th; 1st degree
- ii⁷ = minor 7th; 2nd degree
- bIII⁷ = Augmented Major7th; 3rd degree
- IV⁷ = Dominant 7th; 4th degree
- V⁷ = Dominant 7th; 5th degree
- vi^{ø7} = half-diminished 7th; 6th degree
- vii^{ø7} = half-diminished 7th; 7th degree

Melodic Minor Scale Harmony in all keys

C melodic minor scale (Ionian ↓3)

9 Melodic 3rds

m3 m3 M3 M3 M3 M3 m3 m3

10 Harmonic 3rds

Relative major: E \flat

m3 m3 M3 M3 M3 M3 m3 m3

Relative major: E \flat

Melodic triads (arpeggios)

Cm Dm E \flat ⁺ F G A $^\circ$ B $^\circ$ Cm

Key: Cm i ii \flat III⁺ IV V vi $^\circ$ vii $^\circ$ i

Harmonic triads (chords)

Cm Dm E \flat ⁺ F G A $^\circ$ B $^\circ$ Cm

Key: Cm i ii \flat III⁺ IV V vi $^\circ$ vii $^\circ$ i

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

Cm(maj7) D-7 E \flat maj7(#5) F7 G7 A \emptyset 7 B \emptyset 7 Cm(maj7)

Key: Cm i⁷ ii⁷ \flat III⁷⁺ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

7th chords

Cm(maj7) D-7 E \flat maj7(#5) F7 G7 A \emptyset 7 B \emptyset 7 Cm(maj7)

Key: Cm i⁷ ii⁷ \flat III⁷⁺ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷minor/
major7th minor7th Augmented
Major7th Dom.7th Dom.7th half
dim.7th half
dim.7th minor/
major7th

C# melodic minor scale (Ionian ↓3)

15 Melodic 3rds

m3 m3 M3 M3 M3 M3 m3 m3

16 Harmonic 3rds

m3 m3 M3 M3 M3 M3 m3 m3
Relative major: E

Melodic triads (arpeggios)

C#m D#m E+ F# G# A#° B#° C#m
Key: C#m i ii bIII+ IV V vi° vii° i

Harmonic triads (chords)

C#m D#m E+ F# G# A#° B#° C#m
Key: C#m i ii bIII+ IV V vi° vii° i
minor minor Augmented Major Major diminished diminished minor

7th arpeggios

C#m(maj7) D#-7 Emaj7(#5) F#7 G#7 A#°7 B#°7 C#m(maj7)
Key: C#m i7 ii7 bIII7+ IV7 V7 vi°7 vii°7 i7

7th chords

C#m(maj7) D#-7 Emaj7(#5) F#7 G#7 A#°7 B#°7 C#m(maj7)
Key: C#m i7 ii7 bIII7+ IV7 V7 vi°7 vii°7 i7
minor/major7th minor7th Augmented Major7th Dom.7th Dom.7th half dim.7th half dim.7th minor/major7th

D melodic minor scale (Ionian ↓3)

21 Melodic 3rds

m3 m3 M3 M3 M3 M3 m3 m3

22 Harmonic 3rds

Relative major: F

m3 m3 M3 M3 M3 M3 m3 m3

Relative major: F

Melodic triads (arpeggios)

Dm Em F+ G A B° C#° Dm

Key: Dm i ii \flat III⁺ IV V vi[°] vii[°] i

Harmonic triads (chords)

Dm Em F+ G A B° C#° Dm

Key: Dm i ii \flat III⁺ IV V vi[°] vii[°] i

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

Dm(maj7) E-7 Fmaj7(#5) G7 A7 Bø7 C#ø7 Dm(maj7)

Key: Dm i⁷ ii⁷ \flat III⁷⁺ IV⁷ V⁷ vi^{°7} vii^{°7} i⁷

7th chords

Dm(maj7) E-7 Fmaj7(#5) G7 A7 Bø7 C#ø7 Dm(maj7)

Key: Dm i⁷ ii⁷ \flat III⁷⁺ IV⁷ V⁷ vi^{°7} vii^{°7} i⁷minor/
major7th minor7th Augmented
Major7th Dom.7th Dom.7th half
dim.7th half
dim.7th minor/
major7th

E^b melodic minor scale (Ionian ↓3)

27 **Melodic 3rds**

m3 m3 M3 M3 M3 M3 m3 m3

28 **Harmonic 3rds**

m3 m3 M3 M3 M3 M3 m3 m3

Relative major: G^b

Melodic triads (arpeggios)

E^bm F^m G^{b+} A^b B^b C[°] D[°] E^bm

Key: E^bm i ii bIII⁺ IV V vi[°] vii[°] i

Harmonic triads (chords)

E^bm F^m G^{b+} A^b B^b C[°] D[°] E^bm

Key: E^bm i ii bIII⁺ IV V vi[°] vii[°] i

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

E^bm(maj7) F⁻⁷ G^bmaj7(#5) A^b7 B^b7 C^{ø7} D^{ø7} E^bm(maj7)

Key: E^bm i⁷ ii⁷ bIII⁷⁺ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

7th chords

E^bm(maj7) F⁻⁷ G^bmaj7(#5) A^b7 B^b7 C^{ø7} D^{ø7} E^bm(maj7)

Key: E^bm i⁷ ii⁷ bIII⁷⁺ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

minor/
major7th minor7th Augmented
Major7th Dom.7th Dom.7th half
dim.7th half
dim.7th minor/
major7th

E melodic minor scale (Ionian ↓3)

33 Melodic 3rds

m3 m3 M3 M3 M3 M3 m3 m3

34 Harmonic 3rds

m3 m3 M3 M3 M3 M3 m3 m3

Relative major: G

Relative major: G

Melodic triads (arpeggios)

Em F#m G⁺ A B C[°] D[°] Em

Key: Em i ii \flat III⁺ IV V vi[°] vii[°] i

Harmonic triads (chords)

Em F#m G⁺ A B C[°] D[°] Em

Key: Em i ii \flat III⁺ IV V vi[°] vii[°] i

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

Em(maj7) F#-7 Gmaj7(#5) A⁷ B⁷ C^{°7} D^{°7} Em(maj7)

Key: Em i⁷ ii⁷ \flat III⁷⁺ IV⁷ V⁷ vi^{°7} vii^{°7} i⁷

7th chords

Em(maj7) F#-7 Gmaj7(#5) A⁷ B⁷ C^{°7} D^{°7} Em(maj7)

Key: Em i⁷ ii⁷ \flat III⁷⁺ IV⁷ V⁷ vi^{°7} vii^{°7} i⁷minor/
major7th minor7th Augmented
Major7th Dom.7th Dom.7th half
dim.7th half
dim.7th minor/
major7th

F melodic minor scale (Ionian ↓3)

39 Melodic 3rds

m3 m3 M3 M3 M3 M3 m3 m3

40 Harmonic 3rds

m3 m3 M3 M3 M3 M3 m3 m3

Relative major: Ab

Melodic triads (arpeggios)

Fm Gm Ab⁺ Bb C D[°] E[°] Fm

Key: Fm i ii bIII⁺ IV V vi[°] vii[°] i

Harmonic triads (chords)

Fm Gm Ab⁺ Bb C D[°] E[°] Fm

Key: Fm i ii bIII⁺ IV V vi[°] vii[°] i

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

Fm(maj7) G-7 Abmaj7(#5) Bb7 C7 Dø7 Eø7 Fm(maj7)

Key: Fm i⁷ ii⁷ bIII⁷ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

7th chords

Fm(maj7) G-7 Abmaj7(#5) Bb7 C7 Dø7 Eø7 Fm(maj7)

Key: Fm i⁷ ii⁷ bIII⁷ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

minor/
major7th minor7th Augmented
Major7th Dom.7th Dom.7th half
dim.7th half
dim.7th minor/
major7th

F# melodic minor scale (Ionian ↓3)

Melodic 3rds

m3 m3 ↑ M3 M3 M3 M3 m3 m3

Relative major: A

Harmonic 3rds

m3 m3 ↑ M3 M3 M3 M3 m3 m3

Relative major: A

Melodic triads (arpeggios)

Key: F#m i ii bIII⁺ IV V vi[°] vii[°] i

Harmonic triads (chords)

Key: F#m i ii bIII⁺ IV V vi[°] vii[°] i

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

Key: F#m i⁷ ii⁷ bIII⁷⁺ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

7th chords

Key: F#m i⁷ ii⁷ bIII⁷⁺ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

minor/
major 7th minor 7th Augmented
Major 7th Dom. 7th Dom. 7th half
dim. 7th half
dim. 7th minor/
major 7th

G melodic minor scale (Ionian ↓3)

51 Melodic 3rds

m3 m3 M3 M3 M3 M3 m3 m3

52 Harmonic 3rds

Relative major: Bb

m3 m3 M3 M3 M3 M3 m3 m3

Relative major: Bb

Melodic triads (arpeggios)

Gm Am Bb+ C D Eo F#o Gm

Key: Gm i ii bIII+ IV V vi° vii° i

Harmonic triads (chords)

Gm Am Bb+ C D Eo F#o Gm

Key: Gm i ii bIII+ IV V vi° vii° i

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

Gm(maj7) A-7 Bbmaj7(#5) C7 D7 Eo7 F#o7 Gm(maj7)

Key: Gm i⁷ ii⁷ bIII⁷ IV⁷ V⁷ vi^{o7} vii^{o7} i⁷

7th chords

Gm(maj7) A-7 Bbmaj7(#5) C7 D7 Eo7 F#o7 Gm(maj7)

Key: Gm i⁷ ii⁷ bIII⁷ IV⁷ V⁷ vi^{o7} vii^{o7} i⁷

minor/major7th minor7th Augmented Major7th Dom.7th Dom.7th half dim.7th half dim.7th minor/major7th

G# melodic minor scale (Ionian ↓3)

57 **Melodic 3rds**

m3 m3 M3 M3 M3 M3 m3 m3

58 **Harmonic 3rds**

Relative major: B

m3 m3 M3 M3 M3 M3 m3 m3

Relative major: B

Melodic triads (arpeggios)

59 G#m A#m B+ C# D# E#° Fx° G#m

Key: G#m i ii bIII+ IV V vi° vii° i

Harmonic triads (chords)

60 G#m A#m B+ C# D# E#° Fx° G#m

Key: G#m i ii bIII+ IV V vi° vii° i
 minor minor Augmented Major Major diminished diminished minor

7th arpeggios

61 G#m(maj7) A#-7 Bmaj7(#5) C#7 D#7 E#ø7 Fxø7 G#m(maj7)

Key: G#m i⁷ ii⁷ bIII⁷+ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

7th chords

62 G#m(maj7) A#-7 Bmaj7(#5) C#7 D#7 E#ø7 Fxø7 G#m(maj7)

Key: G#m i⁷ ii⁷ bIII⁷+ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷
 minor/
 major7th minor7th Augmented Major7th Dom.7th Dom.7th half dim.7th half dim.7th minor/
 major7th

A melodic minor scale (Ionian ↓3)

63 Melodic 3rds

m3 m3 M3 M3 M3 M3 m3 m3

64 Harmonic 3rds

m3 m3 M3 M3 M3 M3 m3 m3

Relative major: C

Relative major: C

Melodic triads (arpeggios)

Am Bm C+ D E F#^o G#^o Am

Key: Am i ii \flat III⁺ IV V vi^o vii^o i

Harmonic triads (chords)

Am Bm C+ D E F#^o G#^o Am

Key: Am i ii \flat III⁺ IV V vi^o vii^o i

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

Am(maj7) B-7 Cmaj7(#5) D7 E7 F#^o7 G#^o7 Am(maj7)

Key: Am i⁷ ii⁷ \flat III⁷⁺ IV⁷ V⁷ vi^{o7} vii^{o7} i⁷

7th chords

Am(maj7) B-7 Cmaj7(#5) D7 E7 F#^o7 G#^o7 Am(maj7)

Key: Am i⁷ ii⁷ \flat III⁷⁺ IV⁷ V⁷ vi^{o7} vii^{o7} i⁷

minor/major7th minor7th Augmented Major7th Dom.7th Dom.7th half dim.7th half dim.7th minor/major7th

Bb melodic minor scale (Ionian ↓3)

Melodic 3rds

m3 m3 ↑ M3 M3 M3 M3 m3 m3

Harmonic 3rds

Relative major: Db

m3 m3 ↑ M3 M3 M3 M3 m3 m3

Relative major: Db

Melodic triads (arpeggios)

Bbm Cm Db+ Eb F G° A° Bbm

Key: Bbm i ii bIII+ IV V vi° vii° i

Harmonic triads (chords)

Bbm Cm Db+ Eb F G° A° Bbm

Key: Bbm i ii bIII+ IV V vi° vii° i

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

Bbm(maj7) C-7 Dbmaj7(#5) Eb7 F7 Gø7 Aø7 Bbm(maj7)

Key: Bbm i⁷ ii⁷ bIII⁷+ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

7th chords

Bbm(maj7) C-7 Dbmaj7(#5) Eb7 F7 Gø7 Aø7 Bbm(maj7)

Key: Bbm i⁷ ii⁷ bIII⁷+ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

minor/major7th minor7th Augmented Major7th Dom.7th Dom.7th half dim.7th half dim.7th minor/major7th

B melodic minor scale (Ionian ↓3)

Melodic 3rds

75

m3 m3 M3 M3 M3 M3 m3 m3

Harmonic 3rds

Relative major: D

76

m3 m3 M3 M3 M3 M3 m3 m3

Relative major: D

Melodic triads (arpeggios)

77

Bm C#m D+ E F# G#° A#° Bm

Key: Bm i ii bIII+ IV V vi° vii° i

Harmonic triads (chords)

78

Bm C#m D+ E F# G#° A#° Bm

Key: Bm i ii bIII+ IV V vi° vii° i

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

79

Bm(maj7) C#-7 Dmaj7(#5) E7 F#7 G#ø7 A#ø7 Bm(maj7)

Key: Bm i⁷ ii⁷ bIII⁷ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

7th chords

80

Bm(maj7) C#-7 Dmaj7(#5) E7 F#7 G#ø7 A#ø7 Bm(maj7)

Key: Bm i⁷ ii⁷ bIII⁷ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

minor/
major7th minor7th Augmented Major7th Dom.7th Dom.7th half dim.7th half dim.7th minor/
major7th

Chapter 11- Melodic Minor Scale Modes (I. Relative)

David M. Shere

In this chapter, we are looking at the modes of the **melodic minor scale**.

Melodic minor scale modes can be described as chromatic alterations of **natural minor scale modes**.

Melodic minor scale modes can be grouped together as 1. **relative modes**, and 2. **parallel modes**.

In this chapter, we will be looking at **melodic minor scale relative modes**.

C melodic minor scale (Ionian ↓3)

R 2 \flat 3 4 5 6 7

mode i - Ionian ↓3 ("Jazz minor")

mode ii - Dorian ↓2 ("Phrygian ↑6")

mode \flat III - Lydian ↑5 ("Lydian Augmented")

mode IV - Lydian ↓7 ("Lydian Dominant")

mode V - Mixolydian ↓6

mode vi° - Aeolian ↓5 ("Locrian ↑2")

mode vii° - Locrian ↓4 ("Altered scale")

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

Melodic minor scale modes do not have a universally agreed upon set of theoretical names; each mode has at least two possible common names by which they are identified. In this study we are using naming conventions which overlap as closely as possible with the modes of the **Major** and **natural minor scales**.

- 1.1 **Ionian ↓3** ("lowered 3rd", "Jazz minor") mode is the 1st mode of any **melodic minor scale**, starting and ending on the root of the scale.
- 1.2 **Dorian ↓2** ("lowered 2nd") mode is the 2nd mode of any **melodic minor scale**.
- 1.3 **Lydian ↑5** ("raised 5th") mode is the 3rd mode of any **melodic minor scale**.
- 1.4 **Lydian ↓7** ("lowered 7th", "Lydian Dominant") mode is the 4th mode of any **melodic minor scale**.
- 1.5 **Mixolydian ↓6** ("lowered 6th") mode is the 5th mode of any **melodic minor scale**.
- 1.6 **Aeolian ↓5** ("lowered 5th") mode is the 6th mode of any **melodic minor scale**.
- 1.7 **Locrian ↓4** ("lowered 4th", "Altered") mode is the 7th mode of any **melodic minor scale**.

1. Every mode in the previous diagram can be said to be **relative** to the **C melodic minor scale**.
2. Every mode in the previous diagram has a different **root**, based on its beginning and ending notes within the **C melodic minor scale**.
3. Each **relative mode** derived from the **melodic minor scale** corresponds to a specific **7th chord** also derived from the **melodic minor scale**. The corresponding **chord** and **mode** are based on the same **scale degree**.
4. Notes from the **mode** may be used to improvise melodies over the corresponding **chord**.

² Cm(maj7) C Ionian ↓3 scale; mode i ("melodic minor")

↑
Relative major: Eb

Relative Melodic Minor Scale Modes in all keys

C melodic minor

3 Cm(maj7) C Ionian ↓3 scale; mode i ("Jazz minor")

4 D-7 D Dorian ↓2 scale; mode ii Ebmaj7(#5) Eb Lydian ↑5 scale; mode bIII

6 F7 F Lydian ↓7 scale; mode IV G7 G Mixolydian ↓6 scale; mode V

8 Aø7 A Aeolian ↓5 scale; mode vi° Bø7 B Locrian ↓4 scale; mode vii°

C# melodic minor

10 C#m(maj7) C# Ionian ↓3 scale; mode i ("Jazz minor")

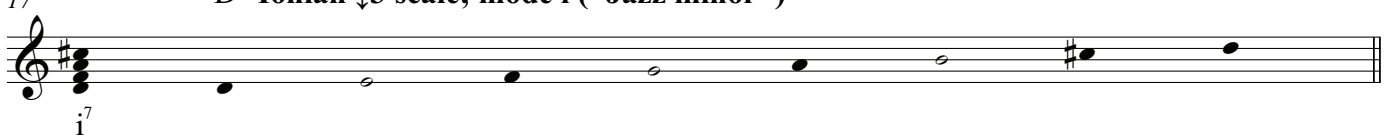
11 D#-7 D# Dorian ↓2 scale; mode ii Emaj7(#5) E Lydian ↑5 scale; mode bIII


13 F#7 F# Lydian ↓7 scale; mode IV G#7 G# Mixolydian ↓6 scale; mode V

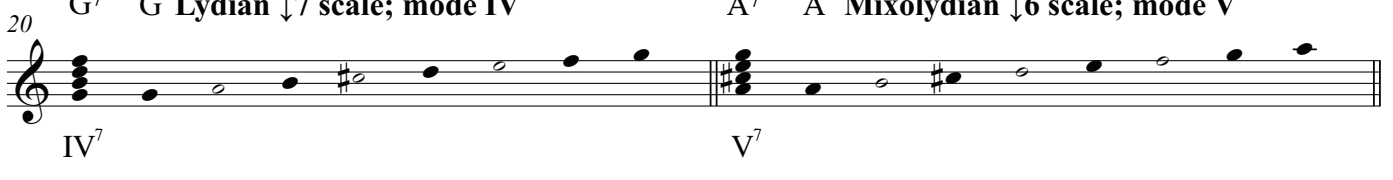
15 A#ø7 A# Aeolian ↓5 scale; mode vi° B#ø7 B# Locrian ↓4 scale; mode vii°


identified as C Locrian ↓4 in Ch. 12

D melodic minor

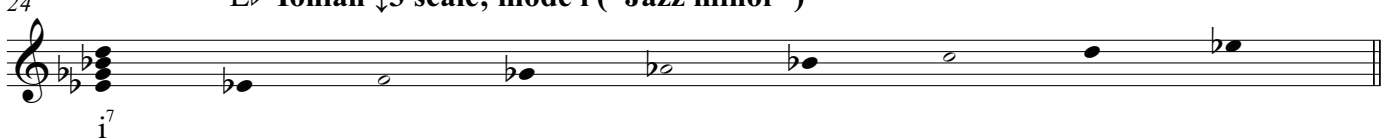
17 **Dm(maj7) D Ionian ↓3 scale; mode i ("Jazz minor")**



18 **E-7 E Dorian ↓2 scale; mode ii** **Fmaj7(#5) F Lydian ↑5 scale; mode bIII**


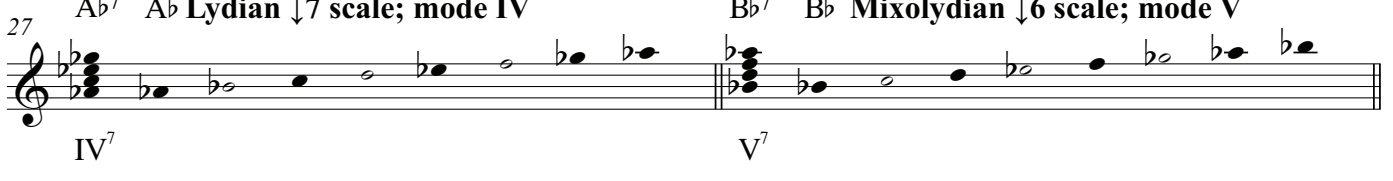
20 **G7 G Lydian ↓7 scale; mode IV** **A7 A Mixolydian ↓6 scale; mode V**



22 **Bø7 B Aeolian ↓5 scale; mode vi°** **C#ø7 C# Locrian ↓4 scale; mode vii°**


E♭ melodic minor

24 **E♭m(maj7) E♭ Ionian ↓3 scale; mode i ("Jazz minor")**


25 **F-7 F Dorian ↓2 scale; mode ii** **G♭maj7(#5) G♭ Lydian ↑5 scale; mode bIII**


27 **A♭7 A♭ Lydian ↓7 scale; mode IV** **B♭7 B♭ Mixolydian ↓6 scale; mode V**


29 **Cø7 C Aeolian ↓5 scale; mode vi°** **Dø7 D Locrian ↓4 scale; mode vii°**


100 E melodic minor

31 Em(maj7) E Ionian ↓3 scale; mode i ("Jazz minor")
*i*⁷

32 F#-7 F# Dorian ↓2 scale; mode ii Gmaj7(#5) G Lydian ↑5 scale; mode bIII
*ii*⁷ *bIII*⁷

34 A7 A Lydian ↓7 scale; mode IV B7 B Mixolydian ↓6 scale; mode V
*IV*⁷ *V*⁷

36 C#ø7 C# Aeolian ↓5 scale; mode vi^o D#ø7 D# Locrian ↓4 scale; mode vii^o
vi^{o7} *vii*^{o7}

F melodic minor

38 Fm(maj7) F Ionian ↓3 scale; mode i ("Jazz minor")
*i*⁷

39 G-7 G Dorian ↓2 scale; mode ii Abmaj7(#5) Ab Lydian ↑5 scale; mode bIII
*ii*⁷ *bIII*⁷

41 Bb7 Bb Lydian ↓7 scale; mode IV C7 C Mixolydian ↓6 scale; mode V
*IV*⁷ *V*⁷

43 Dø7 D Aeolian ↓5 scale; mode vi^o Eø7 E Locrian ↓4 scale; mode vii^o
vi^{o7} *vii*^{o7}

F# melodic minor

45 F#m(maj7) F# Ionian ↓3 scale; mode i ("Jazz minor")

*i*⁷

46 G#-7 G# Dorian ↓2 scale; mode ii A^{maj7}(#5) A Lydian ↑5 scale; mode bIII

*ii*⁷ *bIII*⁷

48 B⁷ B Lydian ↓7 scale; mode IV C#⁷ C# Mixolydian ↓6 scale; mode V

*IV*⁷ *V*⁷

50 D#ø⁷ D# Aeolian ↓5 scale; mode vi° E#ø⁷ E# Locrian ↓4 scale; mode vii°

vi^{°7} *vii*^{°7}

G melodic minor

52 Gm(maj7) G Ionian ↓3 scale; mode i ("Jazz minor")

*i*⁷

53 A-7 A Dorian ↓2 scale; mode ii Bbmaj7(#5) Bb Lydian ↑5 scale; mode bIII

*ii*⁷ *bIII*⁷

55 C⁷ C Lydian ↓7 scale; mode IV D⁷ D Mixolydian ↓6 scale; mode V


*IV*⁷ *V*⁷


57 Eø⁷ E Aeolian ↓5 scale; mode vi° F#ø⁷ F# Locrian ↓4 scale; mode vii°


vi^{°7} *vii*^{°7}

102 G# melodic minor

59 G#m(maj7) G# Ionian ↓3 scale; mode i ("Jazz minor")

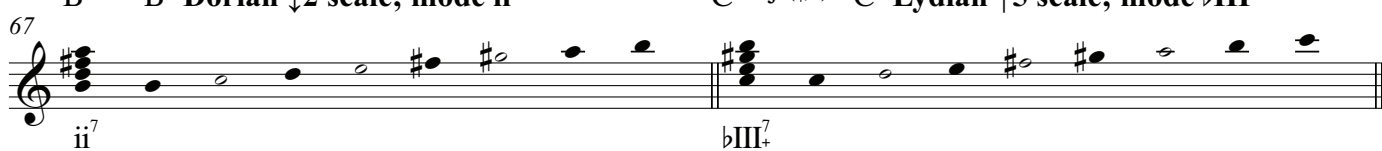

60 A#⁷ A# Dorian ↓2 scale; mode ii Bmaj7(#5) B Lydian ↑5 scale; mode bIII


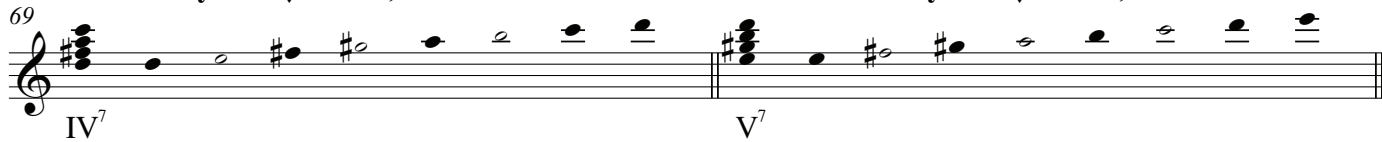
62 C#⁷ C# Lydian ↓7 scale; mode IV D#⁷ D# Mixolydian ↓6 scale; mode V



64 E#^{ø7} E# Aeolian ↓5 scale; mode vi° Fx^{ø7} Fx Locrian ↓4 scale; mode vii°


A melodic minor

66 Am(maj7) A Ionian ↓3 scale; mode i ("Jazz minor")


67 B⁷ B Dorian ↓2 scale; mode ii Cmaj7(#5) C Lydian ↑5 scale; mode bIII


69 D⁷ D Lydian ↓7 scale; mode IV E⁷ E Mixolydian ↓6 scale; mode V


71 F#^{ø7} F# Aeolian ↓5 scale; mode vi° G#^{ø7} G# Locrian ↓4 scale; mode vii°


B \flat melodic minor

73 **B \flat m(maj7)** **B \flat Ionian \downarrow 3 scale; mode i ("Jazz minor")**

74 **C $^{-7}$** **C Dorian \downarrow 2 scale; mode ii** **D \flat maj7(#5)** **D \flat Lydian \uparrow 5 scale; mode \flat III**

76 **E \flat 7** **E \flat Lydian \downarrow 7 scale; mode IV** **F7** **F Mixolydian \downarrow 6 scale; mode V**

78 **G $^{\circ 7}$** **G Aeolian \downarrow 5 scale; mode vi $^{\circ}$** **A $^{\circ 7}$** **A Locrian \downarrow 4 scale; mode vii $^{\circ}$**

B melodic minor

80 **Bm(maj7)** **B Ionian \downarrow 3 scale; mode i ("Jazz minor")**

81 **C $^{-7}$** **C# Dorian \downarrow 2 scale; mode ii** **Dmaj7(#5)** **D Lydian \uparrow 5 scale; mode \flat III**

83 **E7** **E Lydian \downarrow 7 scale; mode IV** **F7** **F# Mixolydian \downarrow 6 scale; mode V**

85 **G $^{\circ 7}$** **G# Aeolian \downarrow 5 scale; mode vi $^{\circ}$** **A $^{\circ 7}$** **A# Locrian \downarrow 4 scale; mode vii $^{\circ}$**

Chapter 12 - Melodic Minor Scale Modes (II. Parallel)

David M. Shere

In this chapter, we will be looking at the **parallel modes** of the **melodic minor scale**.

Parallel melodic minor modes are based on **natural minor modes**.

Parallel melodic minor modes can be best described as **chromatic alterations** of **natural minor modes**.

Consider the scales **C Ionian** and **C Ionian ↓3**:

$C^{\Delta 7}$ C **Ionian scale; mode \flat III ("Major")**

\flat III⁷

² $C_m^{(maj7)}$ C **Ionian ↓3 scale ("melodic minor"); mode i**

i^7 ↓3

a. **C Ionian mode** and **C Ionian ↓3 mode** are **parallel scales**, sharing the **root note C**.

1. **C Ionian** contains the note **[E]**.
2. **C Ionian ↓3** contains the note **[Eb]**.
3. **C Ionian ↓3 mode** is equivalent to **C Ionian mode** with a **lowered (\flat)3**.
4. The **scale formula** for **Ionian ↓3 mode** is **[↓3]**.

3 C^{Δ7} C **Ionian scale; mode \flat III ("Major")**

The musical notation shows a treble clef with a key signature of one flat (Bb). The scale is written as a sequence of notes: C, D, E, F, G, A, B, C. The notes are marked with stems and flags. Below the staff, the chord symbol \flat III⁷ is indicated.

4 C⁻⁷ C **Dorian \downarrow 2 scale; mode ii**

The musical notation shows a treble clef with a key signature of two flats (Bb, Eb). The scale is written as a sequence of notes: C, D \flat , E \flat , F, G, A, B \flat , C. The notes are marked with stems and flags. Below the staff, the chord symbol ii⁷ is indicated. Arrows point to the second, third, and seventh notes, labeled \downarrow 2, \downarrow 3, and \downarrow 7 respectively.

b. C Ionian mode and C Dorian \downarrow 2 mode are parallel scales.

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

1.2 C Dorian \downarrow 2 contains the notes [D \flat],[E \flat] and [B \flat].

2. C Dorian \downarrow 2 mode is equivalent to C Ionian mode with a

lowered (\flat)2, lowered (\flat)3,
and lowered (\flat)7.

3. The scale formula for Dorian \downarrow 2 mode is [\downarrow 2, \downarrow 3, \downarrow 7].

5 C^{Δ7} C **Ionian scale; mode \flat III ("Major")**

The musical notation shows a treble clef with a key signature of one flat (Bb). The scale is written as a sequence of notes: C, D, E, F, G, A, B, C. The notes are marked with stems and flags. Below the staff, the chord symbol \flat III⁷ is indicated.

6 C^{maj7(#5)} C **Lydian \uparrow 5 scale; mode \flat III**

The musical notation shows a treble clef with a key signature of one flat (Bb) and two sharps (F#, C#). The scale is written as a sequence of notes: C, D, E, F#, G#, A, B, C. The notes are marked with stems and flags. Below the staff, the chord symbol \flat III⁷ is indicated. Arrows point to the fourth and fifth notes, labeled \uparrow 4 and \uparrow 5 respectively.

c. C Ionian mode and C Lydian \uparrow 5 mode are parallel scales.

1.1 C Ionian contains the notes [F] and [G].

1.2 C Lydian \uparrow 5 contains the notes [F \sharp] and [G \sharp].

2. C Lydian \uparrow 5 mode is equivalent to C Ionian mode with a

raised (\sharp)4 and raised (\sharp)5.

3. The scale formula for Lydian \uparrow 5 mode is [\uparrow 4, \uparrow 5].

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7 C^{Δ7} C **Ionian scale; mode \flat III ("Major")**

\flat III⁷

Detailed description: A musical staff in treble clef with a key signature of one flat (Bb). The scale is written as a sequence of eighth notes: C, D, E, F, G, A, B, C. The notes are: C (middle C), D (D4), E (E4), F (F4), G (G4), A (A4), B (B4), C (C5). The first measure contains a C^{Δ7} chord (C major triad with a natural 7th, F4). The second measure contains a \flat III⁷ chord (Ebm7).

8 C⁷ C **Lydian \downarrow 7 scale; mode IV**

IV⁷ \uparrow 4 \downarrow 7

Detailed description: A musical staff in treble clef with a key signature of one flat (Bb). The scale is written as a sequence of eighth notes: C, D, E, F#, G, A, Bb, C. The notes are: C (middle C), D (D4), E (E4), F# (F#4), G (G4), A (A4), Bb (Bb4), C (C5). The first measure contains a C⁷ chord (C major triad with a flat 7th, Bb4). The second measure contains an IV⁷ chord (F#m7). The third measure has an \uparrow 4 annotation above the F# note. The fourth measure has a \downarrow 7 annotation above the Bb note.

d. C Ionian mode and C Lydian \downarrow 7 mode are parallel scales.

1.1 C Ionian contains the notes [F] and [B].

1.2 C Lydian \downarrow 7 contains the notes [F#] and [B \flat].

2. C Lydian \downarrow 7 mode is equivalent to C Ionian mode with a raised (#)4, and lowered (\flat)7.

3 The scale formula for Lydian \downarrow 7 mode is [\uparrow 4, \downarrow 7].

9 C^{Δ7} C **Ionian scale; mode \flat III ("Major")**

\flat III⁷

Detailed description: A musical staff in treble clef with a key signature of one flat (Bb). The scale is written as a sequence of eighth notes: C, D, E, F, G, A, B, C. The notes are: C (middle C), D (D4), E (E4), F (F4), G (G4), A (A4), B (B4), C (C5). The first measure contains a C^{Δ7} chord (C major triad with a natural 7th, F4). The second measure contains a \flat III⁷ chord (Ebm7).

10 C⁷ C **Mixolydian \downarrow 6 scale; mode V**

V⁷ \downarrow 6 \downarrow 7

Detailed description: A musical staff in treble clef with a key signature of one flat (Bb). The scale is written as a sequence of eighth notes: C, D, E, F, G, Ab, Bb, C. The notes are: C (middle C), D (D4), E (E4), F (F4), G (G4), Ab (Ab4), Bb (Bb4), C (C5). The first measure contains a C⁷ chord (C major triad with a flat 7th, Bb4). The second measure contains a V⁷ chord (G7). The third measure has a \downarrow 6 annotation above the Ab note. The fourth measure has a \downarrow 7 annotation above the Bb note.

e. C Ionian mode and C Mixolydian \downarrow 6 mode are parallel scales.

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

1.2 C Mixolydian \downarrow 6 contains the notes [A \flat] and [B \flat].

2. C Mixolydian \downarrow 6 mode is equivalent to C Ionian mode with a lowered (\flat)6 and lowered (\flat)7.

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

11 C^{Δ7} C Ionian scale; mode ^bIII ("Major")

^bIII⁷

12 C^{∅7} C Aeolian ↓5 scale; mode vi^o

vi^{o7} ↓3 ↓5 ↓6 ↓7

e. C Ionian mode and C Aeolian ↓5 mode are parallel scales.

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

1.2 C Aeolian ↓5 contains the notes [E^b],[G^b],[A^b] and [B^b].

2. C Aeolian ↓5 mode is equivalent to C Ionian mode with a

lowered (b)3, lowered (b)5,

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

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

C^{Δ7} C Ionian scale; mode ^bIII ("Major")

^bIII⁷

14 C^{∅7} C Locrian ↓4 scale; mode vii^o

vii^{o7} ↓2 ↓3 ↓4 ↓5 ↓6 ↓7

d. C Ionian mode and C Locrian ↓4 mode are parallel scales.

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

1.2 C Locrian ↓4 contains the note [D^b],[E^b],[F^b],[G^b],[A^b] and [B^b].

2. C Locrian ↓4 mode is equivalent to C Ionian mode with a

lowered (b)2, lowered (b)3, lowered (b)4,

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

3. The scale formula for Locrian ↓4 mode is [↓2,↓3,↓4,↓5,↓6,↓7].

g. SUMMARY of parallel melodic minor mode formulas:

1.1 **Ionian** ↓3 = [↓3]

1.2 **Dorian** ↓2 = [↓2,↓3,↓7]

1.3 **Lydian** ↑5 = [↑4,↑5]

1.4 **Lydian** ↓7 = [↑4,↓7]

1.5 **Mixolydian** ↓6 = [↓6,↓7]

1.6 **Aeolian** ↓5 = [↓3,↓5,↓6,↓7]

1.7 **Locrian** ↓4 = [↓2,↓3,↓4,↓5,↓6,↓7]

Parallel Melodic Minor Scale Modes in all keys

C root

16 Cm(maj7) C Ionian ↓3 scale; mode i ("melodic minor")

i⁷ ↓3

17 C⁻⁷ C Dorian ↓2 scale; mode ii Cmaj7(#5) C Lydian ↑5 scale; mode bIII

ii⁷ ↓2 ↓3 ↓7 bIII⁷ ↑4 ↑5

19 C⁷ C Lydian ↓7 scale; mode IV C⁷ C Mixolydian ↓6 scale; mode V

IV⁷ ↑4 ↓7 V⁷ ↓6 ↓7

21 C^{ø7} C Aeolian ↓5 scale; mode vi^o C^{ø7} C Locrian ↓4 scale; mode vii^o

vi^{o7} ↓3 ↓5 ↓6 ↓7 vii^{o7} ↓2 ↓3 ↓4 ↓5 ↓6 ↓7

C#root

23 C#m(maj7) C# Ionian ↓3 scale; mode i ("melodic minor")

i⁷ ↓3

24 C#⁻⁷ C# Dorian ↓2 scale; mode ii Dbmaj7(#5) Db Lydian ↑5 scale; mode bIII

ii⁷ ↓2 ↓3 ↓7 bIII⁷ ↑4 ↑5

26 Db⁷ Db Lydian ↓7 scale; mode IV C⁷ C# Mixolydian ↓6 scale; mode V

IV⁷ ↑4 ↓7 V⁷ ↓6 ↓7

28 C#^{ø7} C# Aeolian ↓5 scale; mode vi^o C#^{ø7} C# Locrian ↓4 scale; mode vii^o

vi^{o7} ↓3 ↓5 ↓6 ↓7 vii^{o7} ↓2 ↓3 ↓4 ↓5 ↓6 ↓7

110 **D root**

30 **Dm(maj7) D Ionian ↓3 scale; mode i ("melodic minor")**

i^7 ↓3

31 **D⁻⁷ D Dorian ↓2 scale; mode ii** **Dmaj7(#5) D Lydian ↑5 scale; mode \flat III**

ii^7 ↓2 ↓3 ↓7 \flat III⁷ ↑4 ↑5

33 **D⁷ D Lydian ↓7 scale; mode IV** **D⁷ D Mixolydian ↓6 scale; mode V**

IV⁷ ↑4 ↓7 V⁷ ↓6 ↓7

35 **D^{ø7} D Aeolian ↓5 scale; mode vi^o** **D^{ø7} D Locrian ↓4 scale; mode vii^o**

vi^{ø7} ↓3 ↓5 ↓6 ↓7 vii^{ø7} ↓2 ↓3 ↓4 ↓5 ↓6 ↓7

E \flat root

37 **E \flat m(maj7) E \flat Ionian ↓3 scale; mode i ("melodic minor")**

i^7 ↓3

38 **E \flat ⁻⁷ E \flat Dorian ↓2 scale; mode ii** **E \flat maj7(#5) E \flat Lydian ↑5 scale; mode \flat III**

ii^7 ↓2 ↓3 ↓7 \flat III⁷ ↑4 ↑5

40 **E \flat ⁷ E \flat Lydian ↓7 scale; mode IV** **E \flat ⁷ E \flat Mixolydian ↓6 scale; mode V**

IV⁷ ↑4 ↓7 V⁷ ↓6 ↓7

42 **D \sharp ^{ø7} D \sharp Aeolian ↓5 scale; mode vi^o** **D \sharp ^{ø7} D \sharp Locrian ↓4 scale; mode vii^o**

vi^{ø7} ↓3 ↓5 ↓6 ↓7 vii^{ø7} ↓2 ↓3 ↓4 ↓5 ↓6 ↓7

E root

44 Em(maj7) E Ionian ↓3 scale; mode i ("melodic minor")

i⁷ ↓3

45 E⁻⁷ E Dorian ↓2 scale; mode ii Emaj7(#5) E Lydian ↑5 scale; mode bIII

ii⁷ ↓2 ↓3 ↓7 bIII⁷ ↑4 ↑5

47 E⁷ E Lydian ↓7 scale; mode IV E⁷ E Mixolydian ↓6 scale; mode V

IV⁷ ↑4 ↓7 V⁷ ↓6 ↓7

49 E^{ø7} E Aeolian ↓5 scale; mode vi° E^{ø7} E Locrian ↓4 scale; mode vii°

vi^{ø7} ↓3 ↓5 ↓6 ↓7 vii^{ø7} ↓2 ↓3 ↓4 ↓5 ↓6 ↓7

F root

51 Fm(maj7) F Ionian ↓3 scale; mode i ("melodic minor")

i⁷ ↓3

52 F⁻⁷ F Dorian ↓2 scale; mode ii Fmaj7(#5) F Lydian ↑5 scale; mode bIII

ii⁷ ↓2 ↓3 ↓7 bIII⁷ ↑4 ↑5

54 F⁷ F Lydian ↓7 scale; mode IV F⁷ F Mixolydian ↓6 scale; mode V

IV⁷ ↑4 ↓7 V⁷ ↓6 ↓7

56 F^{ø7} F Aeolian ↓5 scale; mode vi° F^{ø7} F Locrian ↓4 scale; mode vii°

vi^{ø7} ↓3 ↓5 ↓6 ↓7 vii^{ø7} ↓2 ↓3 ↓4 ↓5 ↓6 ↓7

F#root

58 **F#m(maj7) F# Ionian ↓3 scale; mode i ("melodic minor")**

59 **F#-7 F# Dorian ↓2 scale; mode ii** **Gbmaj7(#5) Gb Lydian ↑5 scale; mode bIII**

61 **F#7 F# Lydian ↓7 scale; mode IV** **F#7 F# Mixolydian ↓6 scale; mode V**

63 **F#ø7 F# Aeolian ↓5 scale; mode vi°** **F#ø7 F# Locrian ↓4 scale; mode vii°**

G root

65 **Gm(maj7) G Ionian ↓3 scale; mode i ("melodic minor")**

66 **G-7 G Dorian ↓2 scale; mode ii** **Gmaj7(#5) G Lydian ↑5 scale; mode bIII**

68 **G7 G Lydian ↓7 scale; mode IV** **G7 G Mixolydian ↓6 scale; mode V**

70 **Gø7 G Aeolian ↓5 scale; mode vi°** **Gø7 G Locrian ↓4 scale; mode vii°**

G#root

72 G#m(maj7) G# **Ionian ↓3 scale; mode i ("melodic minor")**

i^7 ↓3

73 G#-7 G# **Dorian ↓2 scale; mode ii** Abmaj7(#5) Ab **Lydian ↑5 scale; mode bIII**

ii^7 ↓2 ↓3 ↓7 $bIII^7$ ↑4 ↑5

75 Ab7 Ab **Lydian ↓7 scale; mode IV** Ab7 Ab **Mixolydian ↓6 scale; mode V**

IV^7 ↑4 ↓7 V^7 ↓6 ↓7

77 G#ø7 G# **Aeolian ↓5 scale; mode vi°** G#ø7 G# **Locrian ↓4 scale; mode vii°**

$vi^{\circ 7}$ ↓3 ↓5 ↓6 ↓7 $vii^{\circ 7}$ ↓2 ↓3 ↓4 ↓5 ↓6 ↓7

A root

79 Am(maj7) A **Ionian ↓3 scale; mode i ("melodic minor")**

i^7 ↓3

80 A-7 A **Dorian ↓2 scale; mode ii** Amaj7(#5) A **Lydian ↑5 scale; mode bIII**

ii^7 ↓2 ↓3 ↓7 $bIII^7$ ↑4 ↑5

82 A7 A **Lydian ↓7 scale; mode IV** A7 A **Mixolydian ↓6 scale; mode V**

IV^7 ↑4 ↓7 V^7 ↓6 ↓7

84 Aø7 A **Aeolian ↓5 scale; mode vi°** Aø7 A **Locrian ↓4 scale; mode vii°**

$vi^{\circ 7}$ ↓3 ↓5 ↓6 ↓7 $vii^{\circ 7}$ ↓2 ↓3 ↓4 ↓5 ↓6 ↓7

B \flat root

86 B \flat m(maj7) B \flat **Ionian \downarrow 3 scale; mode i ("melodic minor")**

87 B \flat -7 B \flat **Dorian \downarrow 2 scale; mode ii** B \flat maj7(#5) B \flat **Lydian \uparrow 5 scale; mode bIII**

89 B \flat 7 B \flat **Lydian \downarrow 7 scale; mode IV** B \flat 7 B \flat **Mixolydian \downarrow 6 scale; mode V**

91 B \flat \emptyset 7 B \flat **Aeolian \downarrow 5 scale; mode vi $^\circ$** B \flat \emptyset 7 B \flat **Locrian \downarrow 4 scale; mode vii $^\circ$**

B root

93 Bm(maj7) B **Ionian \downarrow 3 scale; mode i ("melodic minor")**

94 B-7 B **Dorian \downarrow 2 scale; mode ii** Bmaj7(#5) B **Lydian \uparrow 5 scale; mode bIII**

96 B7 B **Lydian \downarrow 7 scale; mode IV** B7 B **Mixolydian \downarrow 6 scale; mode V**

98 B \emptyset 7 B **Aeolian \downarrow 5 scale; mode vi $^\circ$** B \emptyset 7 B **Locrian \downarrow 4 scale; mode vii $^\circ$**

SUMMARY of ALL PARALLEL MODE FORMULAS

Natural minor modes:

- 1.1 Aeolian = [$\downarrow 3, \downarrow 6, \downarrow 7$]
- 1.2 Locrian = [$\downarrow 2, \downarrow 3, \downarrow 5, \downarrow 6, \downarrow 7$]
- 1.3 Ionian = [R234567]
- 1.4 Dorian = [$\downarrow 3, \downarrow 7$]
- 1.5 Phrygian = [$\downarrow 2, \downarrow 3, \downarrow 6, \downarrow 7$]
- 1.6 Lydian = [$\uparrow 4$]
- 1.7 Mixolydian = [$\downarrow 7$]

Harmonic minor modes:

- 2.1 Aeolian $\uparrow 7$ = [$\downarrow 3, \downarrow 6$]
- 2.2 Locrian $\uparrow 6$ = [$\downarrow 2, \downarrow 3, \downarrow 5, \downarrow 7$]
- 2.3 Ionian $\uparrow 5$ = [$\uparrow 5$]
- 2.4 Dorian $\uparrow 4$ = [$\downarrow 3, \uparrow 4, \downarrow 7$]
- 2.5 Phrygian $\uparrow 3$ = [$\downarrow 2, \downarrow 6, \downarrow 7$]
- 2.6 Lydian $\uparrow 2$ = [$\uparrow 2, \uparrow 4$]
- 2.7 Locrian $\downarrow 4 \downarrow 7$ = [$\downarrow 2, \downarrow 3, \downarrow 4, \downarrow 5, \downarrow 6, \downarrow 7$]

Melodic minor modes:

- 3.1 Ionian $\downarrow 3$ = [$\downarrow 3$]
- 3.2 Dorian $\downarrow 2$ = [$\downarrow 2, \downarrow 3, \downarrow 7$]
- 3.3 Lydian $\uparrow 5$ = [$\uparrow 4, \uparrow 5$]
- 3.4 Lydian $\downarrow 7$ = [$\uparrow 4, \downarrow 7$]
- 3.5 Mixolydian $\downarrow 6$ = [$\downarrow 6, \downarrow 7$]
- 3.6 Aeolian $\downarrow 5$ = [$\downarrow 3, \downarrow 5, \downarrow 6, \downarrow 7$]
- 3.7 Locrian $\downarrow 4$ = [$\downarrow 2, \downarrow 3, \downarrow 4, \downarrow 5, \downarrow 6, \downarrow 7$]

All modes are inherently useful, if only because they permit the user to navigate from any point in a given scale to any other point within that scale.

However, certain modes derived from the harmonic and melodic minor scales have more common and prevalent uses than others due to the chords they are paired with.

In this chapter, we will examine commonly used modes of the harmonic and melodic minor scales, and look at melodic examples of their use.

Cm^7 C **Aeolian scale; mode i ("Natural minor")**

$Cm^{(maj7)}$ C **harmonic minor scale (Aeolian $\uparrow 7$)**

Cm^7 C **Dorian scale; mode iv**

$Cm^{(maj7)}$ C **melodic minor scale ("Jazz minor")**

The four most important minor scales for practice purposes are those shown above:

1. **Aeolian**
2. **Harmonic minor**
3. **Dorian**
4. **Melodic minor**

Aeolian and **Dorian** are modes of the **Major scale**. Thorough familiarity with the **Major scale** is the key to understanding the use of **minor scale modes**.

Harmonic minor can be viewed as **Aeolian** with a **raised 7th ($\uparrow 7$)**.

Melodic minor can be viewed as **Dorian** with a **raised 7th ($\uparrow 7$)**.

5 $C^{7(b9)}$ C **Phrygian $\uparrow 3$ scale; mode V**

The **Phrygian $\uparrow 3$ ("Phrygian Dominant") mode** is a striking-sounding mode that is compatible with either a **dominant 7th chord** or **dominant 7th (b9) chord**, particularly when improvising over a **[V] chord** in a minor key tune.

The following is an example of a melody that could be improvised using the **Phrygian Dominant mode**.

6 $C^{7(b9)}$ F^{-7}

8 C^7 C **Lydian $\downarrow 7$ scale; mode IV**

The **Lydian $\downarrow 7$ ("Lydian Dominant") mode** is an ambiguous sounding mode that is compatible with a **dominant 7th chord**, particularly when improvising over the **[I] chord** in a blues tune.

The following is an example of a melody that could be improvised using the **Lydian Dominant mode**.

9 C^7 C^7

11 C^7 C **Mixolydian $\downarrow 6$ scale; mode V**

The **Mixolydian $\downarrow 6$ ("Mixolydian b6") mode** is a major-sounding mode that is compatible with a **dominant 7th chord**, particularly when improvising over a **[V] chord** in a minor key tune. It is often used in an overlapping fashion with, or as an alternative to, **Phrygian Dominant mode**.

The following is an example of a melody that could be improvised using the **Mixolydian b6 mode**.

12 C^7 F^{-7}

14 $C\emptyset^7$ C **Locrian $\downarrow 4$ scale; mode vii°**

15 C^7 C **Locrian $\downarrow 4$ scale; mode vii°**

The **Locrian $\downarrow 4$ ("Altered Dominant") mode** is a mysterious, tense sounding mode that is compatible with a **dominant 7th chord**, particularly when improvising over a **[V] chord** in a minor key tune.

The **Altered Dominant scale** in its natural modal position occurs over a **half-diminished 7th chord**, but due to the **enharmonic properties** of the ($b4$) tone in the scale ($b4 = 3$), it is also compatible with **dominant 7th chords**.

In particular, the **Altered Dominant mode** is compatible with **altered dominant 7th chords**, or chords that contain any combination of the following **altered tones**: ($\#5$), ($b5$), ($\#9$), ($b9$), ($\#11$), ($b13$)

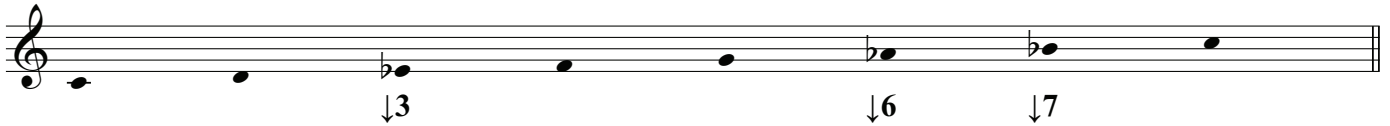
The following is an example of a melody that could be improvised using the **Altered Dominant mode**.

16 $C^7(\#9\#5)$ $C^7(\#9\#5)$

Chapter 14- Harmonic Analysis: Common Minor Scale Chord Progressions

A **parent scale** is the scale from which a set of modes or **chords** is derived.
C natural minor is an example of a parent scale:

C Natural minor scale (Aeolian scale; mode vi), key of Eb

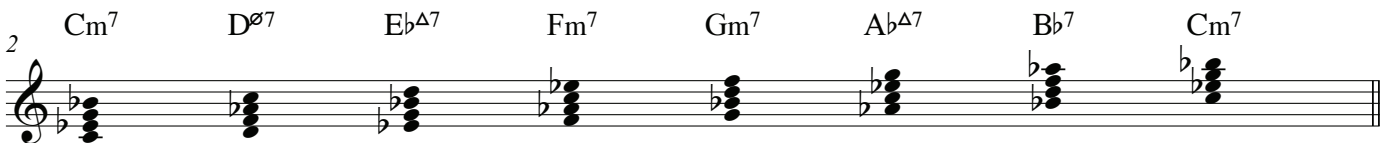


REVIEW:

1. The **minor scales (natural, harmonic, and melodic)** can be harmonized to produce **chords**.
2. **7th chords** are the most common type of chord used in jazz.
3. A **chord progression** is a series or sequence of **chords**, defined in order of appearance from first to last.
4. **Chords** may be organized into **progressions** in any order that appeals to the composer of a piece of music.
5. 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.

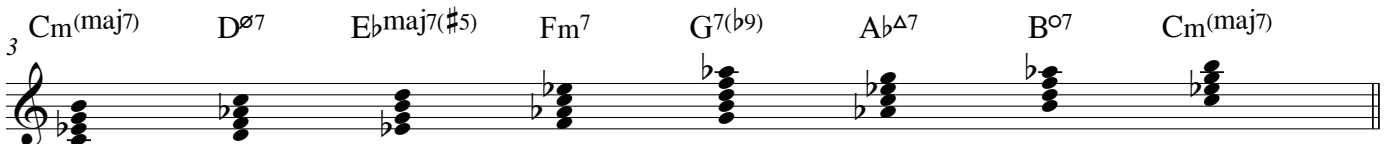
The following examples shows the **naturally occurring progressions of 7th chords** produced by **harmonizing** the **minor scales**:

Natural minor 7th chords



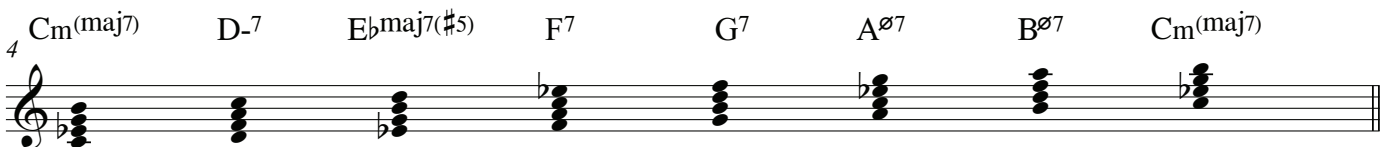
Key: Cm i⁷ ii^{ø7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷

Harmonic minor 7th chords



Key: Cm i⁷ ii^{ø7} bIII⁷⁺ iv⁷ V⁹ bVI⁷ vii^{ø7} i⁷

Melodic minor 7th chords



Key: Cm i⁷ ii⁷ bIII⁷⁺ IV⁷ V⁷ vi^{ø7} vii^{ø7} i⁷

In music composition, composers have the freedom to use any combination of notes or chords to create **melodies** and **chord progressions** as they see fit.

Western music composition historically has been based on rigidly conceived, diligently applied rules that must be followed when writing music, particularly when constructing chord progressions.

However, in the 19th century beginning with Beethoven and into the 20th and 21st centuries with contemporary composers, the rules of music composition have been subjected to greater and greater exception, experimentation, and even blatant disregard in the quest for melodic and harmonic variety and individuality.

In particular, music written in minor keys has always been subject to greater variety than music written in major keys, as the three minor scales (**natural, harmonic, and melodic**) can be applied somewhat interchangeably when composing minor key music.

It would be accurate to say that traditionally, Western music composed in minor keys assumes the **superimposition** of all three minor scale types (**natural, harmonic and melodic**).

The superimposition of all three minor scale types results in increased **chromaticism** (use of the chromatic scale; half-steps between scale tones) in music composed in **minor keys**.

The overlapping use of chords from all three minor scales (as well as the major scale) simultaneously is a compositional process known as **modal mixture**.

A chord from one scale that is used in the context of a chord progression written predominantly in a different scale is known as a **modally borrowed chord**.

When looking for **common chord progressions** in minor keys, it is imperative to be aware of the principles of modal mixture and modal borrowing.

Common minor scale chord progressions often use chords mixed together from two or more minor modes.

Examples of **common chord progressions (C minor parent scales)**:

1. [V-i] progression

6 G^7 C^{-7} $G^7(b^9)$ C^{-7}

V^7 i^7 V_7^9 i^7

Dominant7th **minor7th** **Dominant7th (b9)** **minor7th**

Corresponding **modes and chord tones**

8 G^7 G **Mixolydian** $\downarrow 6$ **scale; mode V** C^{-7} **C natural minor scale; mode i**

melodic minor

V^7 i^7

Dominant7th **minor7th**

9 $G^7(b^9)$ G **Phrygian** $\uparrow 3$ **scale; mode V** C^{-7} **C natural minor scale; mode i**

harmonic minor

V_7^9 i^7

Dominant7th (b9) **minor7th**

The most common minor [V-i] progression is a **dominant 7th [V] chord** resolving to a **minor 7th [i] chord**. This progression is an excellent example of **modal mixture**. In minor keys, **dominant 7th [V] chords** are derived from either **melodic minor** or **harmonic minor scales**, while **minor 7th [i] chords** are derived from the **natural minor scale**.

The **dominant 7th (b9) [V] chord** is derived from the **harmonic minor scale**.

(Minor 7th [i] chords may also be paired with Dorian or Phrygian mode.)

While it would seem necessary to improvise over each chord using a different scale as implied in the above example, in practical application one may choose a single **minor scale (natural, harmonic, or melodic; or other minor mode)** corresponding to the root of the [i] chord to improvise over both chords.

This is possible because any scale tones which may appear to "conflict" with the tones of either chord are perceived as "bluesy" sounds or "passing" sounds due to the increased **chromaticism** of minor key chord progressions.

As a general rule, **dominant 7th [V] chords** in minor chord progressions may be improvised against using either **melodic** or **harmonic minor modes**.

2. [iv-V-i] progression

10

F⁻⁷ G⁷ C⁻⁷

iv⁷ V⁷ I⁷

minor7th Dominant7th minor7th

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

11

F⁻⁷ F **Dorian** ↑4 scale;
mode iv

G⁷ G **Phrygian** ↑3 scale;
mode V

C⁻⁷ C **natural minor** scale;
mode i

harmonic minor *harmonic minor*

iv⁷ V⁷ I⁷

minor7th Dominant7th minor7th

The most common minor [iv-V-i] progression is **minor 7th [iv] chord, dominant 7th [V] chord, minor 7th [i] chord.**

Both the **minor 7th [iv] chord** and **dominant 7th [V] chord** can be found in the **harmonic minor scale**, while the **minor 7th [i] chords** is derived from the **natural minor scale**.

(Minor 7th chords may also be paired with **Dorian** or **Phrygian mode**.)

3. [ii-V-i] progression

12

$D^{\flat 7}$ G^7 C^{-7}

$ii^{\flat 7}$ V^7 $i^{\flat 7}$

half Dominant 7th minor 7th
diminished 7th

Corresponding modes and chord tones

13

$D^{\flat 7}$ D Locrian $\uparrow 6$ scale; G^7 G Phrygian $\uparrow 3$ scale; C^{-7} C natural minor scale;
mode ii mode V mode i

harmonic minor *harmonic minor*

$ii^{\flat 7}$ V^7 $i^{\flat 7}$

half Dominant 7th minor 7th
diminished 7th

14

$D^{\flat 7}$ D Locrian $\uparrow 6$ scale; G^7 G Mixolydian $\downarrow 6$ scale; C^{-7} C natural minor scale;
mode ii mode V mode i

harmonic minor *melodic minor*

$ii^{\flat 7}$ V^7 $i^{\flat 7}$

half Dominant 7th minor 7th
diminished 7th

The most common minor [ii-V-i] progression is **half-diminished 7th [ii] chord** (also known as **minor 7th (b5) [ii] chord**), **dominant 7th [V] chord**, **minor 7th [i] chord**.

Both the **half-diminished 7th [ii] chord** and **dominant 7th [V] chord** can be found in the **harmonic minor scale**, while the **minor 7th [i] chords** is derived from the **natural minor scale**.

As the **dominant 7th [V] chord** may also be found in the **melodic minor scale**, the **minor [ii-V-I] chord progression** is the most concise and widely used example of **modal mixture** in modern jazz composition, potentially implying all three types of traditional minor scales in a single progression.

124 4. [iv- \flat VII- \flat III- \flat VI-ii-V-i] progression

Key: Cm iv⁷ \flat VII⁷ \flat III⁷ \flat VI⁷ ii^{ø7} V⁷ i⁷
 minor7th Dominant7th Major7th Major7th half diminished7th Dominant7th minor7th

Key: Eb ii⁷ V⁷ I⁷ IV⁷

Corresponding modes and chord tones

iv⁷ natural minor minor7th
 \flat VII⁷ natural minor Dominant7th

\flat III⁷ natural minor Major7th
 \flat VI⁷ natural minor Major7th

ii^{ø7} harmonic minor half diminished7th
 V⁷ harmonic minor Dominant7th
 i⁷ natural minor scale; mode i minor7th

Falling 5ths chord progressions [iv- \flat VII- \flat III- \flat VI-ii-V-i] derived from minor scales are particularly problematic for analysis.

The first four chords in the progression [iv- \flat VII- \flat III- \flat VI] are derived from the **natural minor scale**, which means they can also be attributed to the **Major scale**. It can be said that these four chords have a **dual function**:

1. as a **minor scale chord progression** [iv- \flat VII- \flat III- \flat VI]
2. as a **major scale chord progression** [ii-V-I-IV] derived from the relative major scale

Both analyses are equally valid, and in point of fact both functions coexist without conflicting. The **Major scale** function and the **natural minor scale** function can be mapped onto one another simultaneously.

5. [i- \flat VII- \flat VI-V] progression

125

23

C⁻⁷ B \flat ⁷ A \flat ⁷ G⁷

i⁷ \flat VII⁷ \flat VI⁷ V⁷

minor7th Dominant7th Dominant7th Dominant7th

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

25

C⁻⁷ C natural minor scale; mode i B \flat ⁷ B \flat Mixolydian scale; mode \flat VII

i⁷ minor7th \flat VII⁷ Dominant7th

26

A \flat ⁷ A \flat Mixolydian scale; mode \flat VII G⁷ G Phrygian \sharp 3 scale; mode V

\flat VI⁷ C Locrian D \flat Major (Ionian) V⁷ harmonic minor

Dominant7th Dominant7th

The [i- \flat VII- \flat VI-V] progression is somewhat common in minor chord progressions found in **Latin-based jazz** and **modern fusion jazz music**.

The [i] and [\flat VII] chords can both be attributed to the **natural minor scale**.

The [V] chord may be attributed to either the **harmonic** or **melodic minor scale**.

The **dominant [\flat VI] chord** is problematic for analysis. In minor scale chord progressions, typically the [\flat VI] chord is **Major 7th** in quality instead of **dominant**.

The **dominant [\flat VI] chord** implies a change to **Locrian mode** parallel to the root of the [i] chord.

EXAMPLE: The parallel **Locrian mode** for **Cm7** is **C Locrian**.

An easier way to state this is as follows:

The **dominant [\flat VI] chord** implies an actual key change to a **Major scale** one half-step above the root of the [i] chord.

EXAMPLE: The **Major scale** one half-step above the root of **Cm7** is **D \flat Major (Ionian)**.

C Locrian and **D \flat Major (Ionian)** share the same notes, therefore both analyses are equivalent.

126 **Common minor chord progressions in all keys**
 (corresponding modes and **chord tones** omitted):

C minor

1. [V-i] progression

27

G^7 C^{-7} $G^7(b^9)$ C^{-7}

V^7 i^7 V^7 i^7

2. [iv-V-i] progression

29

F^{-7} G^7 C^{-7}

iv^7 V^7 I^7

3. [ii-V-i] progression

29

$D^{\circ 7}$ G^7 C^{-7}

$ii^{\circ 7}$ V^7 i^7

4. [iv- \flat VII- \flat III- \flat VI-ii-V-i] progression

31

Fm^7 Bb^7 $Eb^{\Delta 7}$ $Ab^{\Delta 7}$ $D^{\circ 7}$ G^7 C^{-7}

iv^7 $\flat VII^7$ $\flat III^7$ $\flat VI^7$ $ii^{\circ 7}$ V^7 i^7

5. [i- \flat VII- \flat VI-V] progression

35

C^{-7} Bb^7 Ab^7 G^7

i^7 $\flat VII^7$ $\flat VI^7$ V^7

\flat major

C# minor

1. [V-i] progression

37

$G\#7$ $C\#-7$ $G\#7(b9)$ $C\#-7$

V^7 i^7 V_7^o i^7

2. [iv-V-i] progression

39

$F\#-7$ $G\#7$ $C\#-7$ $D\#\emptyset^7$ $G\#7$ $C\#-7$

iv^7 V^7 I^7 $ii^{\circ 7}$ V^7 i^7

3. [ii-V-i] progression

4. [iv-bVII-bIII-bVI-ii-V-i] progression

41

$F\#\text{m}^7$ B^7 $E^{\Delta 7}$ $A^{\Delta 7}$ $D\#\emptyset^7$ $G\#7$ $C\#-7$

iv^7 $bVII^7$ $bIII^7$ bVI^7 $ii^{\circ 7}$ V^7 i^7

5. [i-bVII-bVI-V] progression

45

$C\#-7$ B^7 A^7 $G\#7$

i^7 $bVII^7$ bVI^7 V^7

D major

D minor

1. [V-i] progression

47

A⁷ D⁻⁷ A^{7(b9)} D⁻⁷

V⁷ i⁷ V⁹ i⁷

2. [iv-V-i] progression

49

G⁻⁷ A⁷ D⁻⁷ E^{ø7} A⁷ D⁻⁷

iv⁷ V⁷ I⁷ ii^{ø7} V⁷ i⁷

3. [ii-V-i] progression

4. [iv-^bVII-^bIII-^bVI-ii-V-i] progression

51

Gm⁷ C⁷ F^{Δ7} B^{bΔ7} E^{ø7} A⁷ D⁻⁷

iv⁷ ^bVII⁷ ^bIII⁷ ^bVI⁷ ii^{ø7} V⁷ i⁷

5. [i-^bVII-^bVI-V] progression

55

D⁻⁷ C⁷ B^{b7} A⁷

i⁷ ^bVII⁷ ^bVI⁷ ^{E_b major} V⁷

E^b minor

1. [V-i] progression

57

B^b7 E^b-7 B^b7(b⁹) E^b-7

V⁷ i⁷ V^o₇ i⁷

2. [iv-V-i] progression

3. [ii-V-i] progression

59

A^b-7 B^b7 E^b-7 F^ø7 B^b7 E^b-7

iv⁷ V⁷ I⁷ ii^{o7} V⁷ i⁷

4. [iv-^bVII-^bIII-^bVI-ii-V-i] progression

61

A^bm⁷ D^b7 G^bΔ⁷ C^bΔ⁷ F^ø7 B^b7 E^b-7

iv⁷ ^bVII⁷ ^bIII⁷ ^bVI⁷ ii^{o7} V⁷ i⁷

5. [i-^bVII-^bVI-V] progression

65

E^b-7 D^b7 C^b7 B^b7

i⁷ ^bVII⁷ ^bVI⁷ V⁷ E major

E minor

1. [V-i] progression

67

B⁷ E⁻⁷ B^{7(b9)} E⁻⁷

V⁷ i⁷ V⁹ i⁷

2. [iv-V-i] progression

69

A⁻⁷ B⁷ E⁻⁷ F^{#o7} B⁷ E⁻⁷

iv⁷ V⁷ I⁷ ii^{o7} V⁷ i⁷

3. [ii-V-i] progression

4. [iv-bVII-bIII-bVI-ii-V-i] progression

71

A^{m7} D⁷ G^{Δ7} C^{Δ7} F^{#o7} B⁷ E⁻⁷

iv⁷ bVII⁷ bIII⁷ bVI⁷ ii^{o7} V⁷ i⁷

5. [i-bVII-bVI-V] progression

75

E⁻⁷ D⁷ C⁷ B⁷

i⁷ bVII⁷ bVI⁷ V⁷

F major

F minor

1. [V-i] progression

77

C⁷ F⁻⁷ C⁷(b⁹) F⁻⁷

V⁷ i⁷ V⁹ i⁷

2. [iv-V-i] progression

79

B^b-⁷ C⁷ F⁻⁷ G^ø⁷ C⁷ F⁻⁷

iv⁷ V⁷ I⁷ ii^{ø7} V⁷ i⁷

3. [ii-V-i] progression

4. [iv-^bVII-^bIII-^bVI-ii-V-i] progression

81

B^bm⁷ E^b⁷ A^bΔ⁷ D^bΔ⁷ G^ø⁷ C⁷ F⁻⁷

iv⁷ ^bVII⁷ ^bIII⁷ ^bVI⁷ ii^{ø7} V⁷ i⁷

5. [i-^bVII-^bVI-V] progression

85

F⁻⁷ E^b⁷ D^b⁷ C⁷

i⁷ ^bVII⁷ ^bVI⁷ V⁷

G^b major

F# minor

1. [V-i] progression

87

C#7 F#-7 C#7(b9) F#-7

V⁷ i⁷ V⁷^o i⁷

2. [iv-V-i] progression

89

B-7 C#7 F#-7 G#ø7 C#7 F#-7

iv⁷ V⁷ I⁷ ii^{ø7} V⁷ i⁷

3. [ii-V-i] progression

4. [iv-bVII-bIII-bVI-ii-V-i] progression

91

Bm⁷ E⁷ A^{Δ7} D^{Δ7} G#ø⁷ C#⁷ F#-⁷

iv⁷ bVII⁷ bIII⁷ bVI⁷ ii^{ø7} V⁷ i⁷

5. [i-bVII-bVI-V] progression

95

F#-⁷ E⁷ D⁷ C#⁷

i⁷ bVII⁷ bVI⁷ V⁷ G major

G minor

1. [V-i] progression

97

D⁷ G⁻⁷ D^{7(b9)} G⁻⁷

V⁷ i⁷ V⁹ i⁷

2. [iv-V-i] progression

99

C⁻⁷ D⁷ G⁻⁷ A^{ø7} D⁷ G⁻⁷

iv⁷ V⁷ I⁷ ii^{ø7} V⁷ i⁷

3. [ii-V-i] progression

4. [iv-^bVII-^bIII-^bVI-ii-V-i] progression

101

Cm⁷ F⁷ B^{bΔ7} E^{bΔ7} A^{ø7} D⁷ G⁻⁷

iv⁷ ^bVII⁷ ^bIII⁷ ^bVI⁷ ii^{ø7} V⁷ i⁷

5. [i-^bVII-^bVI-V] progression

105

G⁻⁷ F⁷ E^{b7} D⁷

i⁷ ^bVII⁷ ^bVI⁷ V⁷ *Ab major*

A \flat minor

1. [V-i] progression

107

$E\flat^7$ $A\flat^{-7}$ $E\flat^7(b^9)$ $A\flat^{-7}$

V^7 i^7 V_7^9 i^7

2. [iv-V-i] progression

109

$D\flat^{-7}$ $E\flat^7$ $A\flat^{-7}$ $B\flat\emptyset^7$ $E\flat^7$ $A\flat^{-7}$

iv^7 V^7 I^7 $ii^{\emptyset 7}$ V^7 i^7

3. [ii-V-i] progression

4. [iv- \flat VII- \flat III- \flat VI-ii-V-i] progression

111

$D\flat m^7$ $G\flat^7$ $C\flat^{\Delta 7}$ $F\flat^{\Delta 7}$ $B\flat\emptyset^7$ $E\flat^7$ $A\flat^{-7}$

iv^7 $\flat VII^7$ $\flat III^7$ $\flat VI^7$ $ii^{\emptyset 7}$ V^7 i^7

5. [i- \flat VII- \flat VI-V] progression

115

$A\flat^{-7}$ $G\flat^7$ $F\flat^7$ $E\flat^7$

i^7 $\flat VII^7$ $\flat VI^7$ V^7

A major

A minor

1. [V-i] progression

117

E⁷ A⁻⁷ E^{7(b9)} A⁻⁷

V⁷ i⁷ V⁹ i⁷

2. [iv-V-i] progression

119

D⁻⁷ E⁷ A⁻⁷ B^{ø7} E⁷ A⁻⁷

iv⁷ V⁷ I⁷ ii^{ø7} V⁷ i⁷

3. [ii-V-i] progression

4. [iv-^bVII-^bIII-^bVI-ii-V-i] progression

121

Dm⁷ G⁷ C^{Δ7} F^{Δ7} B^{ø7} E⁷ A⁻⁷

iv⁷ ^bVII⁷ ^bIII⁷ ^bVI⁷ ii^{ø7} V⁷ i⁷

5. [i-^bVII-^bVI-V] progression

125

A⁻⁷ G⁷ F⁷ E⁷

i⁷ ^bVII⁷ ^bVI⁷ B^b major V⁷

B \flat minor

1. [V-i] progression

127

F⁷ B \flat -⁷ F⁷(b⁹) B \flat -⁷

V⁷ i⁷ V⁹ i⁷

2. [iv-V-i] progression

129

E \flat -⁷ F⁷ B \flat -⁷ C \emptyset ⁷ F⁷ B \flat -⁷

iv⁷ V⁷ I⁷ ii \emptyset ⁷ V⁷ i⁷

3. [ii-V-i] progression

4. [iv- \flat VII- \flat III- \flat VI-ii-V-i] progression

131

E \flat m⁷ A \flat ⁷ D \flat Δ ⁷ G \flat Δ ⁷ C \emptyset ⁷ F⁷ B \flat -⁷

iv⁷ \flat VII⁷ \flat III⁷ \flat VI⁷ ii \emptyset ⁷ V⁷ i⁷

5. [i- \flat VII- \flat VI-V] progression

135

B \flat -⁷ A \flat ⁷ G \flat ⁷ F⁷

i⁷ \flat VII⁷ \flat VI⁷ C \flat major V⁷

B minor

1. [V-i] progression

137

F#⁷ B-⁷ F#⁷(b⁹) B-⁷

V⁷ i⁷ V⁹ i⁷

2. [iv-V-i] progression

139

E-⁷ F#⁷ B-⁷

iv⁷ V⁷ I⁷

3. [ii-V-i] progression

C#^{o7} F#⁷ B-⁷

ii^{o7} V⁷ i⁷

4. [iv-bVII-bIII-bVI-ii-V-i] progression

141

Em⁷ A⁷ D^{Δ7} G^{Δ7} C#^{o7} F#⁷ B-⁷

iv⁷ bVII⁷ bIII⁷ bVI⁷ ii^{o7} V⁷ i⁷

5. [i-bVII-bVI-V] progression

145

B-⁷ A⁷ G⁷ F#⁷

i⁷ bVII⁷ bVI⁷ V⁷

B# major

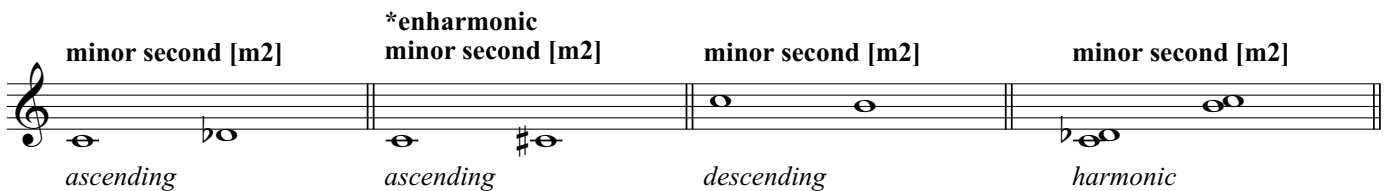
An **interval** is the distance between any two **notes**.
Intervals are the basic building blocks of **scales** and **chords**.

Melodic intervals are two notes written **horizontally** (one after the other) and sounded **successively**.
Harmonic intervals are two notes written **vertically** (one above the other) and sounded **simultaneously**.

I. SIMPLE INTERVALS (Smaller than one octave)

A **minor second [m2]** is the interval between any two adjacent keys (**black** or **white**) on the piano keyboard.

A **minor second** is also known as a **half-step [HS]**.



*An **enharmonic interval** is the same distance from one key to the next as a **diatonic interval**, but does not use the same number of letters of the alphabet.

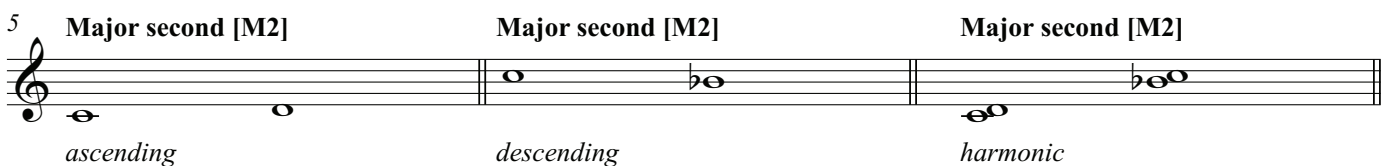
EXAMPLE:

[C-D \flat] is a **diatonic [m2]**. The number of letters in the spelling agrees with the distance of the interval.
 [C-C \sharp] is an **enharmonic [m2]**. There is only one letter in the spelling [C], therefore intervallically it is not accurately spelled as a **2nd**.

A **Major second [M2]** is the interval between any two keys on the piano keyboard with **one (1) key in-between**.

A **Major second** is also known as a **whole-step [WS]**.

(The measurement of intervals is a matter of **simple key count**; it makes no difference if the intervening keys are **black keys** or **white keys**.)



Minor seconds [m2] and **Major seconds [M2]** are the building blocks of larger intervals.

Intervals larger than a **[2nd]** are typically measured in:

1. half-steps [xHS]; OR
2. combinations of whole-steps and half-steps [xWS+xHS].

A **minor 3rd [m3]** is the interval between any two keys on the piano keyboard with **two (2) keys in-between**.

8

minor third [m3] *enharmonic [m3]-
Augmented 2nd [A2] minor third [m3] minor third [m3]

ascending ascending descending harmonic

An **Augmented 2nd [A2] is the interval that occurs between the 6th and 7th scale degrees of the **harmonic minor scale**. It is equivalent to a **[m3]**.*

A **[m3]** can also be defined as:

1. [3HS]; OR
2. [1WS+1HS].

A **Major 3rd [M3]** is the interval between any two keys on the piano keyboard with **three (3) keys in-between**.

12

Major third [M3] Major third [M3] Major third [M3]

ascending descending harmonic

A **[M3]** can also be defined as:

1. [4HS]; OR
2. [2WS].

A **Perfect 4th [P4]** is the interval between any two keys on the piano keyboard with **four (4) keys in-between**.

15 **Perfect 4th [P4]** **Perfect 4th [P4]** **Perfect 4th [P4]**

ascending *descending* *harmonic*

A [P4] can also be defined as:

1. [5HS]; OR
2. [2WS+1HS].

A **tritone** is the interval between any two keys on the piano keyboard with **five (5) keys in-between**.

If it is spelled using **four (4) letters of the alphabet** [example: CDEF#], it is called an **Augmented 4th [A4]**.

If it is spelled using **five (5) letters of the alphabet** [example: CDEFGb], it is called a **diminished 5th [d5]**.

18 **Augmented 4th [A4]** ***diminished 5th [d5]**
flatted 5th (b5)

ascending *descending* *harmonic* *ascending* *descending* *harmonic*

**A diminished 5th [d5] is a common altered chord tone (alteration), and is also known as a flatted 5th (b5).*

A tritone [A4/d5] can also be defined as:

1. [6HS]; OR
2. [3WS].

A **Perfect 5th [P5]** is the interval between any two keys on the piano keyboard with **six (6) keys in-between**.

24 **Perfect 5th [P5]** **Perfect 5th [P5]** **Perfect 5th [P5]**

ascending *descending* *harmonic*

A [P5] can also be defined as:

1. [7HS]; OR
2. [3WS+1HS].

A **minor 6th [m6]** is the interval between any two keys on the piano keyboard with **seven (7) keys in-between**.

27 **minor 6th [m6]** ***enharmonic [m6]-
sharp 5th [#5]** **minor 6th [m6]** **minor 6th [m6]**

ascending *ascending* *descending* *harmonic*

**A sharp 5th (#5) is a common altered chord tone (alteration). It is equivalent to a [m6].*

A [m6] can also be defined as:

1. [8HS]; OR
2. [4WS].

A **Major 6th [M6]** is the interval between any two keys on the piano keyboard with **eight (8) keys in-between**.

31

Major 6th [M6] *enharmonic [M6]-
diminished 7th [d7] Major 6th [M6] Major 6th [M6]

ascending ascending descending harmonic

*A **diminished 7th [d7]** is the interval between the **root [R]** and **double-flatted 7th [bb7]** of a **fully-diminished 7th chord**. It is equivalent to a **[M6]**.

A **[M6]** can also be defined as:

1. [9HS]; OR
2. [4WS+1HS].

A **minor 7th [m7]** is the interval between any two keys on the piano keyboard with **nine (9) keys in-between**.

35

minor 7th [m7] minor 7th [m7] minor 7th [m7]

ascending descending harmonic

A **[m7]** can also be defined as:

1. [10HS]; OR
2. [5WS].

A **Major 7th [M7]** is the interval between any two keys on the piano keyboard with **ten (10) keys in-between**.

38 **Major 7th [M7]** **Major 7th [M7]** **Major 7th [M7]**

ascending *descending* *harmonic*

A [M7] can also be defined as:

1. [11HS]; *OR*
2. [5WS+1HS].

A **Perfect octave [P8]** is the interval between any two keys on the piano keyboard with **eleven (11) keys in-between**; *OR*

The distance between any two keys that share the same **letter name**.

41 **Perfect octave [P8]** **Perfect octave [P8]** **Perfect octave [P8]**

ascending *descending* *harmonic*

A [P8] can also be defined as:

1. [12HS]; *OR*
2. [6WS].

II. COMPOUND INTERVALS (Larger than one octave)

A **minor 9th [m9]** is the interval between any two keys on the piano keyboard with **twelve (12) keys in-between**.

44

The diagram shows three examples of the minor 9th interval on a treble clef staff. Each example starts with a whole note on the bottom line (C4).
 1. **ascending**: Labeled '*minor 9th [m9]-flatted 9th (b9)'. The second note is a whole note on the second space (D4) with a flat sign (Bb4).
 2. **descending**: Labeled 'minor 9th [m9]-flatted 9th (b9)'. The second note is a whole note on the second space (D4) with a flat sign (Bb4).
 3. **harmonic**: Labeled 'minor 9th [m9]-flatted 9th (b9)'. The second note is a whole note on the second space (D4) with a flat sign (Bb4).

*A **flatted 9th (b9)** is an **altered chord tone (alteration)**. It is equivalent to the combined distance of a **perfect octave [P8]** and a **minor 2nd [m2]**, which can be represented as **[P8+m2]**.

A **[m9]** can also be defined as:

1. [13HS]; OR
2. [6WS+1HS].

A **Major 9th [M9]** is the interval between any two keys on the piano keyboard with **thirteen (13) keys in-between**.

47

The diagram shows three examples of the Major 9th interval on a treble clef staff. Each example starts with a whole note on the bottom line (C4).
 1. **ascending**: Labeled 'Major 9th [M9]'. The second note is a whole note on the second space (D4).
 2. **descending**: Labeled 'Major 9th [M9]'. The second note is a whole note on the second space (D4).
 3. **harmonic**: Labeled 'Major 9th [M9]'. The second note is a whole note on the second space (D4).

A **Major 9th (9)** is an **extended chord tone (extension)**. It is equivalent to the combined distance of a **perfect octave [P8]** and a **Major 2nd [M2]**, which can be represented as **[P8+M2]**.

A **[M9]** can also be defined as:

1. [14HS]; OR
2. [7WS].

An **Augmented 9th [A9]** is the interval between any two keys on the piano keyboard with **fourteen (14) keys in-between**.

50

*Augmented 9th [A9]-sharp 9th (#9) Augmented 9th [A9]-sharp 9th (#9) Augmented 9th [A9]-sharp 9th (#9)

ascending descending harmonic

**A sharp 9th (#9) is an altered chord tone (alteration). It is equivalent to the combined distance of a perfect octave [P8] and an Augmented 2nd [A2], which can be represented as [P8+A2].*

An [A9] can also be defined as:

1. [15HS]; OR
2. [7WS+1HS].

A **Perfect 11th [P11]** is the interval between any two keys on the piano keyboard with **sixteen (16) keys in-between**.

53

Perfect 11th [P11] Perfect 11th [P11] Perfect 11th [P11]

ascending descending harmonic

A Perfect 11th (11) is an extended chord tone (extension). It is equivalent to the combined distance of a perfect octave [P8] and a Perfect 4th [P4], which can be represented as [P8+P4].

A [P11] can also be defined as:

1. [17HS]; OR
2. [8WS+1HS].

An **Augmented 11th [A11]** is the interval between any two keys on the piano keyboard with **seventeen (17) keys in-between**.

56

*Augmented 11th [A11]-sharp 11th (#11) Augmented 11th [A11]-sharp 11th (#11) Augmented 11th [A11]-sharp 11th (#11)

ascending descending harmonic

*A **sharp 11th (#11)** is an **altered chord tone (alteration)**. It is equivalent to the combined distance of a **perfect octave [P8]** and an **Augmented 4th [A4]**, which can be represented as **[P8+A4]**.

An **[A11]** can also be defined as:

1. [18HS]; OR
2. [9WS].

A **minor 13th [m13]** is the interval between any two keys on the piano keyboard with **nineteen (19) keys in-between**.

59

*minor 13th [m13]-flatted 13th (b13) minor 13th [m13]-flatted 13th (b13) minor 13th [m13]-flatted 13th (b13)

ascending descending harmonic

*A **flatted 13th (b13)** is an **extended chord tone (extension)** found in **minor chords**. It is equivalent to the combined distance of a **perfect octave [P8]** and a **minor 6th [m6]**, which can be represented as **[P8+m6]**.

A **[m13]** can also be defined as:

1. [20HS]; OR
2. [10WS].

A **Major 13th [M13]** is the interval between any two keys on the piano keyboard with **twenty (20) keys in-between**.

*Major 13th [m13] Major 13th [m13] Major 13th [m13]

62

ascending descending harmonic

A 13th (13) is an **extended chord tone (extension) found in **Major or dominant chords**. It is equivalent to the combined distance of a **perfect octave [P8]** and a **Major 6th [M6]**, which can be represented as **[P8+M6]**.*

A [M13] can also be defined as:

1. [21HS]; OR
2. [10WS+1HS].

148 **III. REDUNDANT COMPOUND INTERVALS (Larger than one octave)**

For the purposes of jazz theory, **compound intervals** that are octave repetitions of **fundamental chord tones [R, \flat 3, 3, 5, \flat 7, or 7]** do not reflect a change in chord structure and are therefore considered **redundant** for the purposes of **harmonic analysis (classifying and naming chords)**.

These tones may be present in a **melody** or **chord voicing** and therefore require acknowledgement, but they do not play a role in the syntax of **chord symbols**.

Perfect unisons and 15ths [P1, P15] are harmonically equivalent to **Perfect octaves [P8]**.

65

Perfect unison [P1]	Perfect 15th [P15]	[P1]	[P15]
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melodic *melodic* *harmonic* *harmonic*

Minor and Major 10ths [m10, M10] are harmonically equivalent to **minor and Major 3rds [m3, M3]**.

68

minor 3rd [m3]	minor 10th [m10]	[m3]	[m10]
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melodic *melodic* *harmonic* *harmonic*

71

Major 3rd [M3]	Major 10th [M10]	[M3]	[M10]
-----------------------	-------------------------	-------------	--------------

melodic *melodic* *harmonic* *harmonic*

Perfect 12ths [P12] are harmonically equivalent to **Perfect 5ths [P5]**.

74

Perfect 5th [P5]	Perfect 12th [P12]	[P5]	[P12]
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melodic *melodic* *harmonic* *harmonic*

Minor and Major 14ths [m14, M14] are harmonically equivalent to **minor and Major 7ths [m7, M7]**.

77

minor 7th [m7]	minor 14th [m14]	[m7]	[m14]
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melodic *melodic* *harmonic* *harmonic*

80

Major 7th [M7]	Major 14th [M14]	[M7]	[M14]
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melodic *melodic* *harmonic* *harmonic*

III. INTERVALS in all keys

(Harmonic intervals not shown in order to save space)

C root

Ascending

83 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

A musical staff in treble clef showing ascending intervals from C. The notes are: C, D (m2), E (M2), F# (A2), G (m3), A (M3), B (P4), C# (A4), D (d5(b5)), E (P5), F# (A5(#5)), G (m6), A (M6), B (d7), C (m7).

96 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

A musical staff in treble clef showing ascending intervals from C. The notes are: C (M7), D (P8), E (m9(b9)), F (M9), G# (A9(#9)), A (m10), B (M10), C (P11), D# (A11(#11)), E (P12), F (m13(b13)), G (M13), A (m14), B (M14).

Descending

110 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

A musical staff in treble clef showing descending intervals from C. The notes are: C, B (m2), A (M2), G# (A2), F (m3), E (M3), D (P4), C# (A4), B (d5(b5)), A (P5), G# (A5(#5)), F (m6), E (M6), D (d7), C (m7).

123 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

A musical staff in treble clef showing descending intervals from C. The notes are: C (M7), B (P8), A (m9(b9)), G (M9), F# (A9(#9)), E (m10), D (M10), C (P11), B# (A11(#11)), A (P12), G (m13(b13)), F (M13), E (m14), D (M14).

D^b root**Ascending**

137 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

A musical staff in treble clef with a key signature of two flats (Bb, Eb). The notes are: m2 (Bb), M2 (D), A2 (Eb), m3 (F), M3 (G), P4 (Ab), A4 d5(b5) (Bb), P5 (Cb), A5(#5) (Db), m6 (Eb), M6 (F), d7 (Gb), m7 (Ab).

150 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

A musical staff in treble clef with a key signature of two flats (Bb, Eb). The notes are: M7 (Bb), P8 (Cb), m9(b9) (Db), M9 (Eb), A9(#9) (F), m10 (Gb), M10 (Ab), P11 (Bb), A11(#11) (Cb), P12 (Db), m13(b13) (Eb), M13 (F), m14 (Gb), M14 (Ab).

Descending

164 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

A musical staff in treble clef with a key signature of two flats (Bb, Eb). The notes are: m2 (Bb), M2 (D), A2 (Eb), m3 (F), M3 (G), P4 (Ab), A4 (Bb), d5(b5) P5 (Cb), A5(#5) (Db), m6 (Eb), M6 (F), d7 (Gb), m7 (Ab).

177 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

A musical staff in treble clef with a key signature of two flats (Bb, Eb). The notes are: M7 (Bb), P8 (Cb), m9(b9) (Db), M9 (Eb), A9(#9) (F), m10 (Gb), M10 (Ab), P11 (Bb), A11(#11) (Cb), P12 (Db), m13(b13) (Eb), M13 (F), m14 (Gb), M14 (Ab).

D root

Ascending

191 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

204 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

Descending

218 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

231 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

E \flat root**Ascending**

245 m2 M2 A2 m3 M3 P4 A4 d5(\flat 5) P5 A5(\sharp 5) m6 M6 d7 m7

258 M7 P8 m9(\flat 9) M9 A9(\sharp 9) m10 M10 P11 A11(\sharp 11) P12 m13(\flat 13) M13 m14 M14

Descending

272 m2 M2 A2 m3 M3 P4 A4 d5(\flat 5) P5 A5(\sharp 5) m6 M6 d7 m7

285 M7 P8 m9(\flat 9) M9 A9(\sharp 9) m10 M10 P11 A11(\sharp 11) P12 m13(\flat 13) M13 m14 M14

E root

Ascending

299 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

312 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

Descending

326 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

339 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

F root

Ascending

353 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

366 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

Descending

380 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

393 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

F# root

Ascending

407 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

M7 P8 m9(b9)M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

420

Descending

434 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

447

G root

Ascending

461 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

474

Descending

488 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

501

A^b root

Ascending

515 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

528

Descending

542 m2 M2 A2 m3 M3 P4 A4 d5(b5)P5 A5(#5) m6 M6 d7 m7

M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

555

A root

Ascending

569 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

582

Descending

596 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

609

B \flat root

Ascending

623 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

636

Descending

650 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

663

B root**Ascending**

677 **m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7**

690 **M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14**

Descending

704 **m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7**

717 **M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14**

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