

Tools For Improvisation

Part II

(Bass clef)

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

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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**.

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

R	2	b3	4	5	b6	b7	R
C	D	E ^b	F	G	A ^b	B ^b	C

E^b Major scale (Ionian scale; mode I)

E ^b	F	G	A ^b	B ^b	C	D	E ^b
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The **C Natural minor scale** is made up of the following notes: [CDE^bFGA^bB^bC]

Natural minor scale degrees are numbered [R2^b345^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^b 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 Δ 7 C Major scale (Ionian scale; mode I)

4 Cm⁷ 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^b**

↑
Relative major: E^b

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

↑
Relative major: E

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

↑
Relative major: F

8 **Ebm⁷ E^b Natural minor scale (Aeolian scale; mode vi), key of G^b**

↑
Relative major: G^b

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

↑
Relative major: G

10 **Fm⁷ F Natural minor scale (Aeolian scale; mode vi), key of A^b**

↑
Relative major: A^b

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

↑
Relative major: A

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

↑
Relative major: B \flat

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

↑
Relative major: B

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

↑
Relative major: C

15 $B\flat m^7$ **B \flat Natural minor scale (Aeolian scale; mode vi), key of D \flat**

↑
Relative major: D \flat

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

↑
Relative major: D

Chapter 2- Natural Minor Scale Harmony

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C Natural minor scale

R 2 \uparrow $b3$ 4 5 $b6$ $b7$ R

Relative major: E_b

C Natural minor scale

2 Melodic 2nds

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_b is a **3rd** [C- E_b]

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_b -G] = [E_b -E-F-F \sharp -G]

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

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

3 Melodic 3rds

m3 m3 \uparrow M3 m3 m3 M3 M3 m3

Relative major: E_b

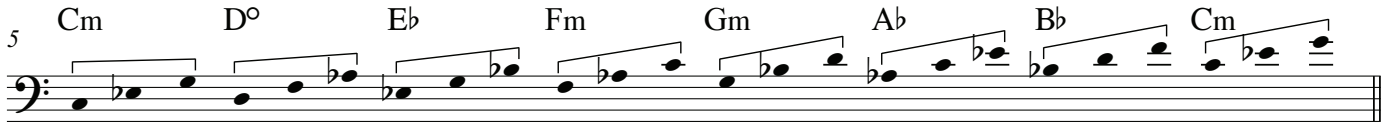
4 Harmonic 3rds

m3 m3 \uparrow M3 m3 m3 M3 M3 m3

Relative major: E_b

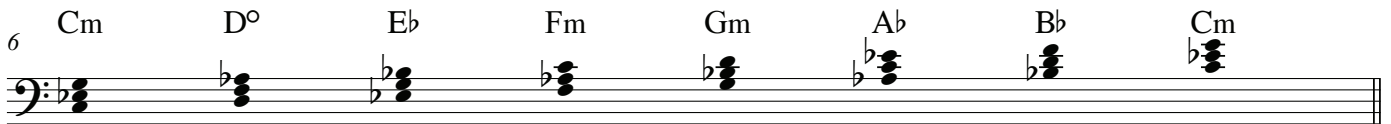
C Natural minor scale

Melodic triads (arpeggios)



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

Harmonic triads (chords)



Key: Cm i ii° bIII iv v bVI bVII i
 Key: Eb vi vii° 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° = 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° = 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

Cm⁷ D^{ø7} Eb^{Δ7} Fm⁷ Gm⁷ Ab^{Δ7} Bb⁷ Cm⁷



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

7th chords

Cm⁷ D^{ø7} Eb^{Δ7} Fm⁷ Gm⁷ Ab^{Δ7} Bb⁷ Cm⁷



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
 ii^{ø7} = 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
 vii^{ø7} = 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

Natural Minor Scale Harmony in all keys

C Natural minor scale

9 Melodic 3rds

10 Harmonic 3rds

Relative major: Eb

Melodic triads (arpeggios)

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

Harmonic triads (chords)

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

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 Major7th minor7th minor7th Major7th Dominant7th minor7th
 diminished7th

C# Natural minor scale

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)



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

Harmonic triads (chords)



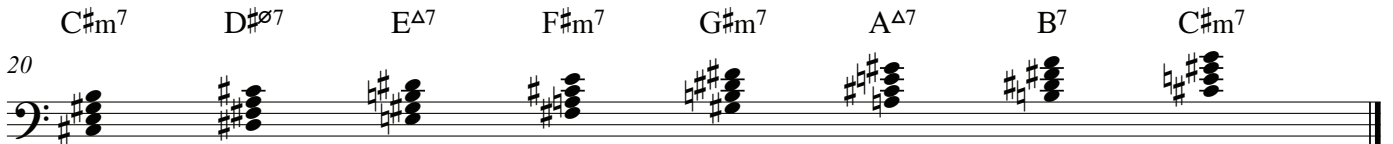
Key: C#m i ii° bIII iv v bVI bVII i
Key: E vi vii° I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

7th arpeggios



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



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**

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

Melodic triads (arpeggios)

23

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

Harmonic triads (chords)

24

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

25

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

7th chords

26

Key: Dm i⁷ ii^{ø7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
Key: F vi⁷ vii^{ø7} 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**

28

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

Melodic triads (arpeggios)

29

Key: E_bm i ii[°] bIII iv v bVI bVII i
Key: G_b vi vii[°] I ii iii IV V vi

Harmonic triads (chords)

30

Key: E_bm i ii[°] bIII iv v bVI bVII i
Key: G_b vi vii[°] I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

7th arpeggios

31

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

7th chords

32

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

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

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

Harmonic triads (chords)

36

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

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

7th chords

38

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

F Natural minor scale

39 **Melodic 3rds**

m3 m3 \uparrow M3 m3 m3 M3 M3 m3

Harmonic 3rds Relative major: Ab

m3 m3 \uparrow 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

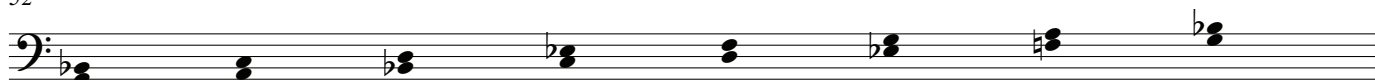
G Natural minor scale

51 **Melodic 3rds**



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

52



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

Melodic triads (arpeggios)



Key: Gm i ii° ♭III iv v ♭VI ♭VII i
Key: B♭ vi vii° I ii iii IV V vi

Harmonic triads (chords)



Key: Gm i ii° ♭III iv v ♭VI ♭VII i
Key: B♭ vi vii° I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

7th arpeggios



Key: Gm i⁷ ii^{°7} ♭III⁷ iv⁷ v⁷ ♭VI⁷ ♭VII⁷ i⁷
Key: B♭ vi⁷ vii^{°7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

7th chords



Key: Gm i⁷ ii^{°7} ♭III⁷ iv⁷ v⁷ ♭VI⁷ ♭VII⁷ i⁷
Key: B♭ vi⁷ vii^{°7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷
 minor7th half diminished7th Major7th minor7th minor7th Major7th Dominant7th minor7th

G# Natural minor scale

57 **Melodic 3rds**

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

58

m3 m3 \uparrow M3 m3 m3 M3 M3 m3
 Relative major: B

Melodic triads (arpeggios)

59 G#m A#^o B C#m D#m E F# G#m

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

Harmonic triads (chords)

60 G#m A#^o B C#m D#m E F# G#m

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

7th arpeggios

61 G#m⁷ A#^{o7} B^{Δ7} C#m⁷ D#m⁷ E^{Δ7} F#⁷ G#m⁷

Key: G#m i⁷ ii^{o7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
 Key: B vi⁷ vii^{o7} I⁷ ii⁷ iii⁷ IV⁷ V⁷ vi⁷

7th chords

62 G#m⁷ A#^{o7} B^{Δ7} C#m⁷ D#m⁷ E^{Δ7} F#⁷ G#m⁷

Key: G#m i⁷ ii^{o7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷
 Key: B vi⁷ vii^{o7} 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**

64

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

Melodic triads (arpeggios)

65 Am B^o C Dm Em F G Am

Key: A m i ii^o bIII iv v bVI bVII i
Key: C vi vii^o I ii iii IV V vi

Harmonic triads (chords)

66 Am B^o C Dm Em F G Am

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

7th arpeggios

67 Am⁷ B^{o7} C^{Δ7} Dm⁷ Em⁷ F^{Δ7} G⁷ Am⁷

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

7th chords

68 Am⁷ B^{o7} C^{Δ7} Dm⁷ Em⁷ F^{Δ7} G⁷ Am⁷

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

B \flat Natural minor scale

69 **Melodic 3rds**

m3 m3 \uparrow M3 m3 m3 M3 M3 m3
Harmonic 3rds **Relative major: D \flat**

70

m3 m3 \uparrow M3 m3 m3 M3 M3 m3
Relative major: D \flat

Melodic triads (arpeggios)

71

Key: B \flat m i ii $^\circ$ \flat III iv v \flat VI \flat VII i
Key: D \flat vi vii $^\circ$ I ii iii IV V vi

Harmonic triads (chords)

72

Key: B \flat m i ii $^\circ$ \flat III iv v \flat VI \flat VII i
Key: D \flat vi vii $^\circ$ I ii iii IV V vi
 minor diminished Major minor minor Major Major minor

7th arpeggios

73

Key: B \flat m i 7 ii $^{°7}$ \flat III 7 iv 7 v 7 \flat VI 7 \flat VII 7 i 7
Key: D \flat vi 7 vii $^{°7}$ I 7 ii 7 iii 7 IV 7 V 7 vi 7

7th chords

74

Key: B \flat m i 7 ii $^{°7}$ \flat III 7 iv 7 v 7 \flat VI 7 \flat VII 7 i 7
Key: D \flat vi 7 vii $^{°7}$ I 7 ii 7 iii 7 IV 7 V 7 vi 7
 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**

76

m3 m3 ↑ M3 m3 m3 M3 M3 m3
Relative major: D

Melodic triads (arpeggios)

77 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)

78 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

79 Bm⁷ C#^{ø7} D^{Δ7} Em⁷ F#m⁷ G^{Δ7} A⁷ Bm⁷

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

7th chords

80 Bm⁷ C#^{ø7} D^{Δ7} Em⁷ F#m⁷ G^{Δ7} A⁷ Bm⁷

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

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**.

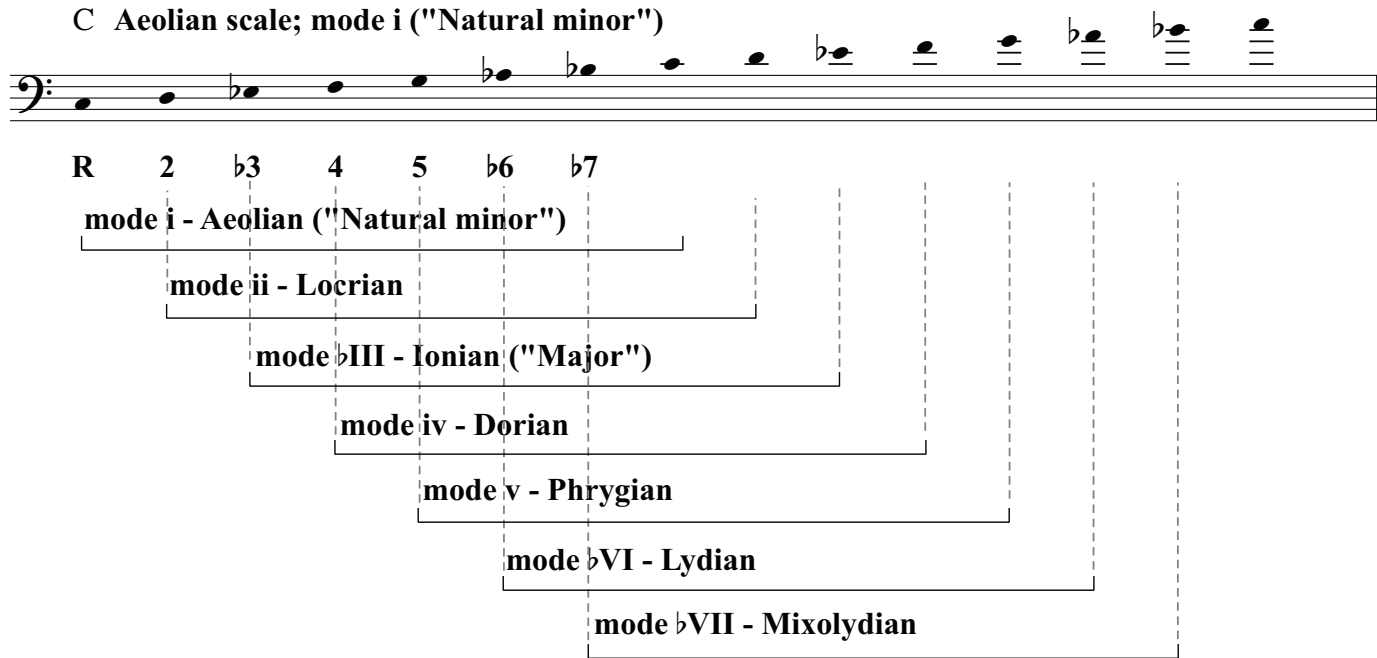
2. **Natural Minor scale modes**, like **Major scale modes**, can be grouped together in two separate, but equally important ways:

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

Relative Natural Minor Scale Modes in all keys

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

i⁷

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

ii^{ø7}

bIII^{Δ7}

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

iv⁷

v⁷

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

bVI^{Δ7}

bVII⁷

C#minor

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

i⁷

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

ii^{ø7}

bIII^{Δ7}

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

iv⁷

v⁷

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

bVI^{Δ7}

bVII⁷

D minor

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

i⁷

19 **E^{ø7}** E Locrian scale; mode ii **F^{Δ7}** F Ionian scale; mode **bIII** ("Major")

ii^{ø7} **bIII⁷**

21 **Gm⁷** G Dorian scale; mode iv **Am⁷** A Phrygian scale; mode v

iv⁷ **v⁷**

23 **Bb^{Δ7}** Bb Lydian scale; mode **bVI** **C⁷** C Mixolydian scale; mode **bVII**

bVI⁷ **bVII⁷**

E^b minor

25 **Ebm⁷** E^b Aeolian scale; mode i ("Natural minor")

i⁷

26 **F^{ø7}** F Locrian scale; mode ii **Gb^{Δ7}** G^b Ionian scale; mode **bIII** ("Major")

ii^{ø7} **bIII⁷**

28 **Abm⁷** A^b Dorian scale; mode iv **Bbm⁷** B^b Phrygian scale; mode v

iv⁷ **v⁷**

30 **Cb^{Δ7}** C^b Lydian scale; mode **bVI** **Db⁷** D^b Mixolydian scale; mode **bVII**

bVI⁷ **bVII⁷**

E minor

32 Em^7 E Aeolian scale; mode i ("Natural minor")

33 $F\#\ominus^7$ F# Locrian scale; mode ii $G^{\Delta 7}$ G Ionian scale; mode $bIII$ ("Major")

35 Am^7 A Dorian scale; mode iv Bm^7 B Phrygian scale; mode v

37 $C^{\Delta 7}$ C Lydian scale; mode bVI D^7 D Mixolydian scale; mode $bVII$

bVI^7 $bVII^7$

F minor

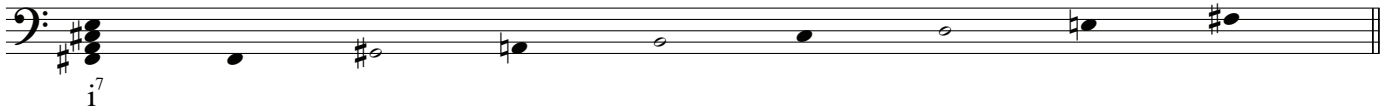
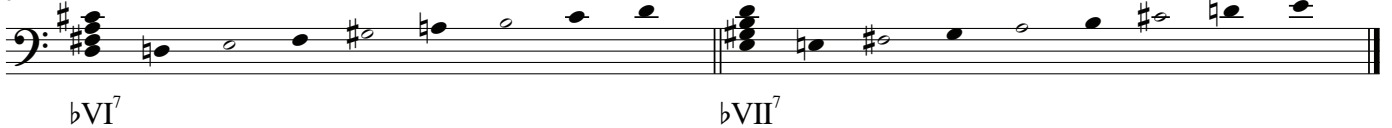
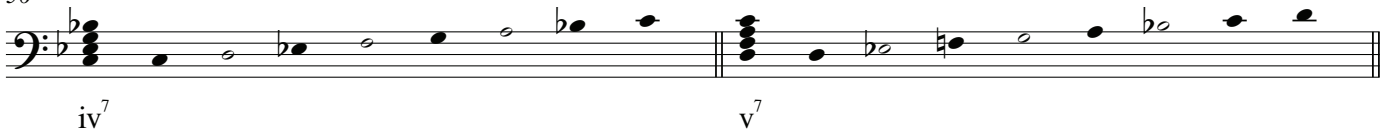
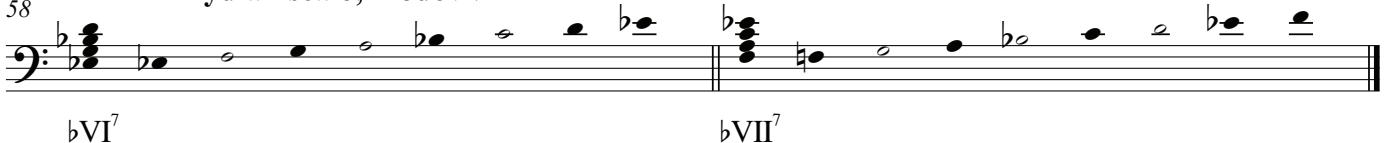
39 Fm^7 F Aeolian scale; mode i ("Natural minor")

40 $G^{\ominus 7}$ G Locrian scale; mode ii $Ab^{\Delta 7}$ Ab Ionian scale; mode $bIII$ ("Major")

42 Bbm^7 Bb Dorian scale; mode iv Cm^7 C Phrygian scale; mode v

44 $Db^{\Delta 7}$ Db Lydian scale; mode bVI Eb^7 Eb Mixolydian scale; mode $bVII$

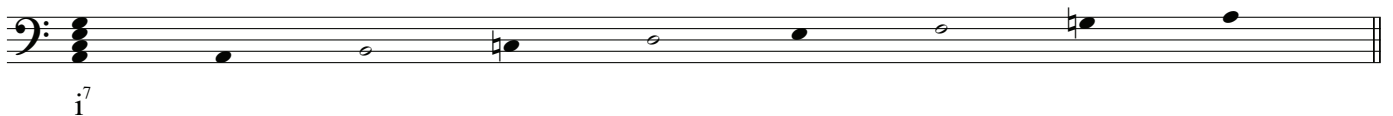
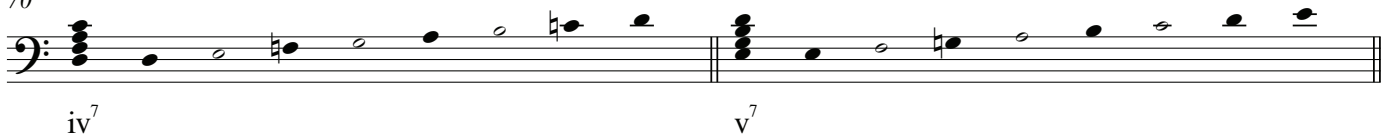
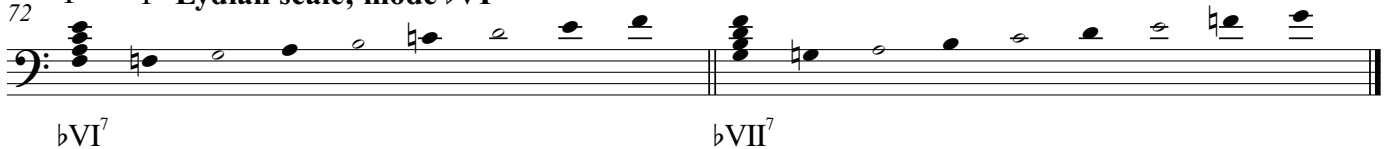
bVI^7 $bVII^7$

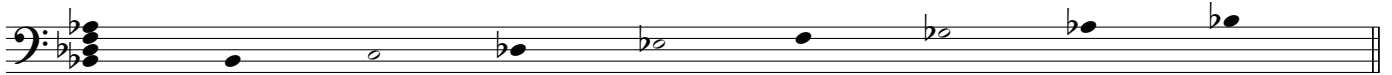
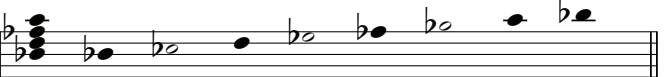
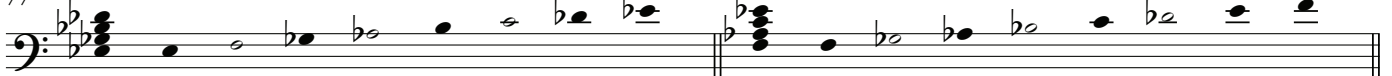
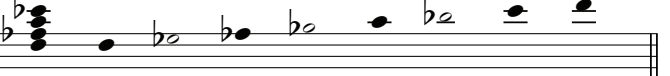
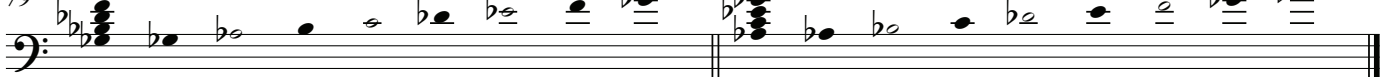
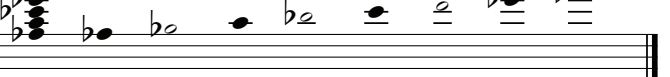
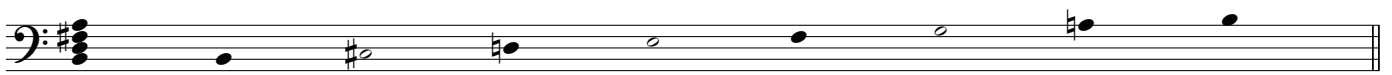
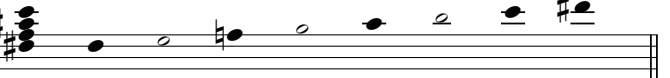
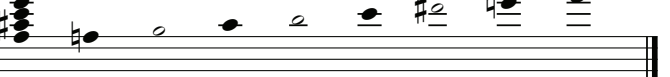
F#minor46 F#m⁷ F# Aeolian scale; mode i ("Natural minor")47 G#ø⁷ G# Locrian scale; mode iiA^{Δ7} A Ionian scale; mode bIII ("Major")49 Bm⁷ B Dorian scale; mode ivC#m⁷ C# Phrygian scale; mode v51 D^{Δ7} D Lydian scale; mode bVIE⁷ E Mixolydian scale; mode bVII**G minor**53 Gm⁷ G Aeolian scale; mode i ("Natural minor")54 Aø⁷ A Locrian scale; mode iiBb^{Δ7} Bb Ionian scale; mode bIII ("Major")56 Cm⁷ C Dorian scale; mode ivDm⁷ D Phrygian scale; mode v58 Eb^{Δ7} Eb Lydian scale; mode bVIF⁷ F Mixolydian scale; mode bVII

G#minor

60 G#m⁷ G# Aeolian scale; mode i ("Natural minor")61 A[#]7 A# Locrian scale; mode iiB^Δ7 B Ionian scale; mode bIII ("Major")63 C#m⁷ C# Dorian scale; mode ivD#m⁷ D# Phrygian scale; mode v65 E^Δ7 E Lydian scale; mode bVIF#⁷ F# Mixolydian scale; mode bVII

A minor

67 Am⁷ A Aeolian scale; mode i ("Natural minor")68 B^Δ7 B Locrian scale; mode iiC^Δ7 C Ionian scale; mode bIII ("Major")70 Dm⁷ D Dorian scale; mode ivEm⁷ E Phrygian scale; mode v72 F^Δ7 F Lydian scale; mode bVIG⁷ G Mixolydian scale; mode bVII

B \flat minor74 **B \flat m⁷ B \flat Aeolian scale; mode i ("Natural minor")**i⁷75 **C \emptyset ⁷ C Locrian scale; mode ii**ii⁷**D \flat ⁷ D \flat Ionian scale; mode \flat III ("Major")** \flat III⁷77 **E \flat m⁷ E \flat Dorian scale; mode iv**iv⁷**Fm⁷ F Phrygian scale; mode v**v⁷79 **G \flat ⁷ G \flat Lydian scale; mode \flat VI** \flat VI⁷**A \flat ⁷ A \flat Mixolydian scale; mode \flat VII** \flat VII⁷**B minor**81 **Bm⁷ B Aeolian scale; mode i ("Natural minor")**i⁷82 **C \sharp \emptyset ⁷ C \sharp Locrian scale; mode ii**ii⁷**D⁷ D Ionian scale; mode \flat III ("Major")** \flat III⁷84 **Em⁷ E Dorian scale; mode iv**iv⁷**F \sharp m⁷ F \sharp Phrygian scale; mode v**v⁷86 **G⁷ G Lydian scale; mode \flat VI** \flat VI⁷**A⁷ A Mixolydian scale; mode \flat VII** \flat VII⁷

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")**

♭III⁷

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

i⁷ ↓3 ↓6 ↓7

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 (♭)**, 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 [E♭], [A♭] and [B♭].

5.3 **C Aeolian mode** is equivalent to **C Ionian mode** with a **lowered (♭)3, lowered (♭)6, and lowered (♭)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].

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

\flat III⁷

Detailed description: A bass clef staff with a key signature of one flat (Bb). The first measure contains a C^{Δ7} chord (C4, E4, G4, Bb4). The second measure contains the notes C4, D4, E4, F4, G4, A4, Bb4, C5, each with a fermata. The text above the staff reads '3 C^{Δ7} C Ionian scale; mode \flat III ("Major")'. Below the staff, the chord symbol \flat III⁷ is written.

4 C^{∅7} C Locrian scale; mode ii

ii^{∅7} ↓2 ↓3 ↓5 ↓6 ↓7

Detailed description: A bass clef staff with a key signature of two flats (Bb, Eb). The first measure contains a C^{∅7} chord (C4, Eb4, Gb4, Bb4). The second measure contains the notes C4, Dbb4, Eb4, F4, Gbb4, Ab4, Bbb4, C5, each with a fermata. The text above the staff reads '4 C^{∅7} C Locrian scale; mode ii'. Below the staff, the chord symbol ii^{∅7} is written, followed by scale degree alterations: ↓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

Detailed description: A bass clef staff with a key signature of one flat (Bb). The first measure contains a C^{Δ7} chord (C4, E4, G4, Bb4). The second measure contains the notes C4, D4, E4, F4, G4, A4, Bb4, C5, each with a fermata. The text above the staff reads '5 C^{Δ7} C Ionian scale; mode \flat III ("Major")'. Below the staff, the chord symbol \flat III⁷ is written.

6 Cm⁷ C Dorian scale; mode iv

iv⁷ ↓3 ↓7

Detailed description: A bass clef staff with a key signature of two flats (Bb, Eb). The first measure contains a Cm⁷ chord (C4, Eb4, Gb4, Bb4). The second measure contains the notes C4, D4, Eb4, F4, G4, Ab4, Bb4, C5, each with a fermata. The text above the staff reads '6 Cm⁷ C Dorian scale; mode iv'. Below the staff, the chord symbol iv⁷ is written, followed by scale degree alterations: ↓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 ^bIII ("Major")

^bIII⁷

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♭],[E♭],[A♭] and [B♭].

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

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

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

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

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

^bIII⁷

10 C^{Δ7} C Lydian scale; mode ^bVI

^bVI⁷ ↑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 [↑4].

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

\flat III⁷

12 C⁷ C Mixolydian scale; mode \flat VII

\flat VII⁷ ↓7

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

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

i⁷ ↓3 ↓6 ↓7

14 C^{ø7} C Locrian scale; mode ii

ii^{ø7} ↓2 ↓3 ↓5 ↓6 ↓7

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

bIII⁷

16 Cm⁷ C Dorian scale; mode iv

iv⁷ ↓3 ↓7

17 Cm⁷ C Phrygian scale; mode v

v⁷ ↓2 ↓3 ↓6 ↓7

18 C^{Δ7} C Lydian scale; mode ^bVI

bVI⁷ ↑4

19 C⁷ C Mixolydian scale; mode ^bVII

bVII⁷ ↓7

C#root

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

i⁷ ↓3 ↓6 ↓7

21 C#^{ø7} C# Locrian scale; mode ii

ii^{ø7} ↓2 ↓3 ↓5 ↓6 ↓7

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

bIII⁷

23 C#m⁷ C# Dorian scale; mode iv

iv⁷ ↓3 ↓7

24 C#m⁷ C# Phrygian scale; mode v

v⁷ ↓2 ↓3 ↓6 ↓7

25 Db^{Δ7} Db Lydian scale; mode ^bVI

bVI⁷ ↑4

26 C#⁷ C# Mixolydian scale; mode ^bVII

bVII⁷ ↓7

D root

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

Musical notation for D Aeolian scale, mode i ("Natural minor") in bass clef. The scale notes are D, E, F, G, A, B \flat , C, D. The starting chord is Dm⁷. Fingering is indicated by numbers 1-7 below the notes. Arrows point to the 3rd, 6th, and 7th degrees.

28 D δ ⁷ D Locrian scale; mode iiD Δ ⁷ D Ionian scale; mode \flat III ("Major")

Musical notation for D Locrian scale, mode ii (D δ ⁷) and D Ionian scale, mode \flat III ("Major") (D Δ ⁷) in bass clef. The Locrian scale notes are D, E \flat , F, G, A \flat , B \flat , C, D. The Ionian scale notes are D, E, F \sharp , G, A, B, C, D. Starting chords are D δ ⁷ and D Δ ⁷. Fingering is indicated by numbers 1-7. Arrows point to the 2nd, 3rd, 5th, 6th, and 7th degrees.

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

Musical notation for D Dorian scale, mode iv (Dm⁷) and D Phrygian scale, mode v (Dm⁷) in bass clef. The Dorian scale notes are D, E, F, G, A, B, C, D. The Phrygian scale notes are D, E \flat , F, G, A, B, C, D. Starting chord is Dm⁷. Fingering is indicated by numbers 1-7. Arrows point to the 3rd, 7th, 2nd, 3rd, 6th, and 7th degrees.

32 D Δ ⁷ D Lydian scale; mode \flat VID⁷ D Mixolydian scale; mode \flat VII

Musical notation for D Lydian scale, mode \flat VI (D Δ ⁷) and D Mixolydian scale, mode \flat VII (D⁷) in bass clef. The Lydian scale notes are D, E, F \sharp , G, A, B, C, D. The Mixolydian scale notes are D, E, F, G, A, B \flat , C, D. Starting chords are D Δ ⁷ and D⁷. Fingering is indicated by numbers 1-7. Arrows point to the 4th and 7th degrees.

E \flat root34 E \flat m⁷ E \flat Aeolian scale; mode i ("Natural minor")

Musical notation for E \flat Aeolian scale, mode i ("Natural minor") in bass clef. The scale notes are E \flat , F, G, A, B, C, D \flat , E \flat . The starting chord is E \flat m⁷. Fingering is indicated by numbers 1-7. Arrows point to the 3rd, 6th, and 7th degrees.

35 D \sharp δ ⁷ D \sharp Locrian scale; mode iiE \flat Δ ⁷ E \flat Ionian scale; mode \flat III ("Major")

Musical notation for D \sharp Locrian scale, mode ii (D \sharp δ ⁷) and E \flat Ionian scale, mode \flat III ("Major") (E \flat Δ ⁷) in bass clef. The D \sharp Locrian scale notes are D \sharp , E \flat , F, G, A \flat , B \flat , C, D \sharp . The E \flat Ionian scale notes are E \flat , F, G, A, B, C, D \flat , E \flat . Starting chords are D \sharp δ ⁷ and E \flat Δ ⁷. Fingering is indicated by numbers 1-7. Arrows point to the 2nd, 3rd, 5th, 6th, and 7th degrees.

37 E \flat m⁷ E \flat Dorian scale; mode ivD \sharp m⁷ D \sharp Phrygian scale; mode v

Musical notation for E \flat Dorian scale, mode iv (E \flat m⁷) and D \sharp Phrygian scale, mode v (D \sharp m⁷) in bass clef. The E \flat Dorian scale notes are E \flat , F, G, A, B, C, D \flat , E \flat . The D \sharp Phrygian scale notes are D \sharp , E \flat , F, G, A, B, C, D \sharp . Starting chords are E \flat m⁷ and D \sharp m⁷. Fingering is indicated by numbers 1-7. Arrows point to the 3rd, 7th, 2nd, 3rd, 6th, and 7th degrees.

39 E \flat Δ ⁷ E \flat Lydian scale; mode \flat VIE \flat ⁷ E \flat Mixolydian scale; mode \flat VII

Musical notation for E \flat Lydian scale, mode \flat VI (E \flat Δ ⁷) and E \flat Mixolydian scale, mode \flat VII (E \flat ⁷) in bass clef. The E \flat Lydian scale notes are E \flat , F, G \sharp , A, B, C, D \flat , E \flat . The E \flat Mixolydian scale notes are E \flat , F, G, A, B \flat , C, D \flat , E \flat . Starting chords are E \flat Δ ⁷ and E \flat ⁷. Fingering is indicated by numbers 1-7. Arrows point to the 4th and 7th degrees.

E root

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

i⁷ ↓3 ↓6 ↓7

42 E^{ø7} E Locrian scale; mode ii

ii^{ø7} ↓2 ↓3 ↓5 ↓6 ↓7

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

bIII⁷

44 Em⁷ E Dorian scale; mode iv

iv⁷ ↓3 ↓7

Em⁷ E Phrygian scale; mode v

v⁷ ↓2 ↓3 ↓6 ↓7

46 E^{Δ7} E Lydian scale; mode ^bVI

bVI⁷ ↑4

E⁷ E Mixolydian scale; mode ^bVII

bVII⁷ ↓7

F root

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

i⁷ ↓3 ↓6 ↓7

49 F^{ø7} F Locrian scale; mode ii

ii^{ø7} ↓2 ↓3 ↓5 ↓6 ↓7

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

bIII⁷

51 Fm⁷ F Dorian scale; mode iv

iv⁷ ↓3 ↓7

Fm⁷ F Phrygian scale; mode v

v⁷ ↓2 ↓3 ↓6 ↓7

53 F^{Δ7} F Lydian scale; mode ^bVI

bVI⁷ ↑4

F⁷ F Mixolydian scale; mode ^bVII

bVII⁷ ↓7

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

Musical notation for F# Aeolian scale, mode i ("Natural minor"). The scale is shown in bass clef with a key signature of two sharps (F# and C#). The notes are F#, G, A, B, C, D, E, F#. The scale is divided into two measures. The first measure contains the notes F# (chord i⁷), G, A, and B. The second measure contains the notes C, D, E, and F# (chord i⁷). Fingering is indicated by numbers 3, 6, and 7 below the notes.

56 F#^{ø7} F# Locrian scale; mode iiG^{bΔ7} G^b Ionian scale; mode ^bIII ("Major")

Musical notation for F# Locrian scale, mode ii and G^b Ionian scale, mode ^bIII ("Major"). The first part shows the F# Locrian scale in bass clef with a key signature of two sharps (F# and C#). The notes are F#, G, A, B, C, D, E, F#. The scale is divided into two measures. The first measure contains the notes F# (chord ii^{ø7}), G, and A. The second measure contains the notes B, C, D, and E. The second part shows the G^b Ionian scale in bass clef with a key signature of two flats (B^b and E^b). The notes are G^b, A^b, B^b, C^b, D^b, E^b, F^b, G^b. The scale is divided into two measures. The first measure contains the notes G^b (chord ^bIII⁷), A^b, and B^b. The second measure contains the notes C^b, D^b, E^b, and F^b. Fingering is indicated by numbers 2, 3, 5, 6, and 7 below the notes.

58 F#m⁷ F# Dorian scale; mode ivF#m⁷ F# Phrygian scale; mode v

Musical notation for F# Dorian scale, mode iv and F# Phrygian scale, mode v. The first part shows the F# Dorian scale in bass clef with a key signature of two sharps (F# and C#). The notes are F#, G, A, B, C, D, E, F#. The scale is divided into two measures. The first measure contains the notes F# (chord iv⁷), G, and A. The second measure contains the notes B, C, D, and E. The second part shows the F# Phrygian scale in bass clef with a key signature of two sharps (F# and C#). The notes are F#, G, A, B, C, D, E, F#. The scale is divided into two measures. The first measure contains the notes F# (chord v⁷), G, and A. The second measure contains the notes B, C, D, and E. Fingering is indicated by numbers 3, 7, 2, 3, 6, and 7 below the notes.

60 G^{bΔ7} G^b Lydian scale; mode ^bVIF#⁷ F# Mixolydian scale; mode ^bVII

Musical notation for G^b Lydian scale, mode ^bVI and F# Mixolydian scale, mode ^bVII. The first part shows the G^b Lydian scale in bass clef with a key signature of two flats (B^b and E^b). The notes are G^b, A^b, B^b, C^b, D^b, E^b, F^b, G^b. The scale is divided into two measures. The first measure contains the notes G^b (chord ^bVI⁷), A^b, and B^b. The second measure contains the notes C^b, D^b, E^b, and F^b. The second part shows the F# Mixolydian scale in bass clef with a key signature of two sharps (F# and C#). The notes are F#, G, A, B, C, D, E, F#. The scale is divided into two measures. The first measure contains the notes F# (chord ^bVII⁷), G, and A. The second measure contains the notes B, C, D, and E. Fingering is indicated by numbers 4 and 7 below the notes.

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

Musical notation for G Aeolian scale, mode i ("Natural minor"). The scale is shown in bass clef with a key signature of one flat (F). The notes are G, A, B, C, D, E, F, G. The scale is divided into two measures. The first measure contains the notes G (chord i⁷), A, and B. The second measure contains the notes C, D, E, and F. Fingering is indicated by numbers 3, 6, and 7 below the notes.

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

Musical notation for G Locrian scale, mode ii and G Ionian scale, mode ^bIII ("Major"). The first part shows the G Locrian scale in bass clef with a key signature of one flat (F). The notes are G, A, B, C, D, E, F, G. The scale is divided into two measures. The first measure contains the notes G (chord ii^{ø7}), A, and B. The second measure contains the notes C, D, E, and F. The second part shows the G Ionian scale in bass clef with a key signature of one flat (F). The notes are G, A, B, C, D, E, F, G. The scale is divided into two measures. The first measure contains the notes G (chord ^bIII⁷), A, and B. The second measure contains the notes C, D, E, and F. Fingering is indicated by numbers 2, 3, 5, 6, and 7 below the notes.

65 Gm⁷ G Dorian scale; mode ivGm⁷ G Phrygian scale; mode v

Musical notation for G Dorian scale, mode iv and G Phrygian scale, mode v. The first part shows the G Dorian scale in bass clef with a key signature of one flat (F). The notes are G, A, B, C, D, E, F, G. The scale is divided into two measures. The first measure contains the notes G (chord iv⁷), A, and B. The second measure contains the notes C, D, E, and F. The second part shows the G Phrygian scale in bass clef with a key signature of one flat (F). The notes are G, A, B, C, D, E, F, G. The scale is divided into two measures. The first measure contains the notes G (chord v⁷), A, and B. The second measure contains the notes C, D, E, and F. Fingering is indicated by numbers 3, 7, 2, 3, 6, and 7 below the notes.

67 G^{Δ7} G Lydian scale; mode ^bVIG⁷ G Mixolydian scale; mode ^bVII

Musical notation for G Lydian scale, mode ^bVI and G Mixolydian scale, mode ^bVII. The first part shows the G Lydian scale in bass clef with a key signature of one flat (F). The notes are G, A, B, C, D, E, F, G. The scale is divided into two measures. The first measure contains the notes G (chord ^bVI⁷), A, and B. The second measure contains the notes C, D, E, and F. The second part shows the G Mixolydian scale in bass clef with a key signature of one flat (F). The notes are G, A, B, C, D, E, F, G. The scale is divided into two measures. The first measure contains the notes G (chord ^bVII⁷), A, and B. The second measure contains the notes C, D, E, and F. Fingering is indicated by numbers 4 and 7 below the notes.

G#root

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

i⁷ ↓3 ↓6 ↓7

70 G#ø7 G# Locrian scale; mode ii AbΔ7 Ab Ionian scale; mode bIII ("Major")

ii^{ø7} ↓2 ↓3 ↓5 ↓6 ↓7 bIII⁷

72 Abm7 Ab Dorian scale; mode iv G#m7 G# Phrygian scale; mode v

iv⁷ ↓3 ↓7 v⁷ ↓2 ↓3 ↓6 ↓7

74 AbΔ7 Ab Lydian scale; mode bVI Ab7 Ab Mixolydian scale; mode bVII

bVI⁷ ↑4 bVII⁷ ↓7

A root

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

i⁷ ↓3 ↓6 ↓7

77 Aø7 A Locrian scale; mode ii AΔ7 A Ionian scale; mode bIII ("Major")

ii^{ø7} ↓2 ↓3 ↓5 ↓6 ↓7 bIII⁷

79 Am7 A Dorian scale; mode iv Am7 A Phrygian scale; mode v

iv⁷ ↓3 ↓7 v⁷ ↓2 ↓3 ↓6 ↓7

81 AΔ7 A Lydian scale; mode bVI A7 A Mixolydian scale; mode bVII

bVI⁷ ↑4 bVII⁷ ↓7

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

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

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

$ii^{\circ 7}$ $\downarrow 2$ $\downarrow 3$ $\downarrow 5$ $\downarrow 6$ $\downarrow 7$ $bIII^7$

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

iv^7 $\downarrow 3$ $\downarrow 7$ v^7 $\downarrow 2$ $\downarrow 3$ $\downarrow 6$ $\downarrow 7$

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

bVI^7 $\uparrow 4$ $bVII^7$ $\downarrow 7$

B root90 **Bm 7 B Aeolian scale; mode i ("Natural minor")**

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

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

$ii^{\circ 7}$ $\downarrow 2$ $\downarrow 3$ $\downarrow 5$ $\downarrow 6$ $\downarrow 7$ $bIII^7$

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

iv^7 $\downarrow 3$ $\downarrow 7$ v^7 $\downarrow 2$ $\downarrow 3$ $\downarrow 6$ $\downarrow 7$

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

bVI^7 $\uparrow 4$ $bVII^7$ $\downarrow 7$

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 \uparrow 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.)

The image shows two musical staves in bass clef with a key signature of one flat (Bb). The first staff is titled "Cm⁷ C Aeolian scale; mode i ('Natural minor')". It shows the notes C, D, Eb, F, G, Ab, Bb. The notes Eb, Ab, and Bb are marked with (b3), (b6), and (b7) respectively. The second staff is titled "Cm^(maj7) C harmonic minor scale (Aeolian \uparrow 7)". It shows the notes C, D, Eb, F, G, Ab, A. The notes Eb, Ab, and A are marked with (b3), (b6), and \uparrow 7. An upward arrow points from the text "Relative major: Eb" below the staff to the Eb note.

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

Harmonic minor scale degrees are numbered **[R2 \flat 345 \flat 67]**.

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: **E \flat 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")

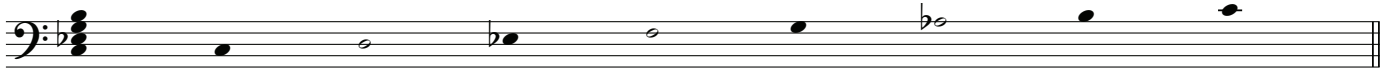
4 $C_m^{(maj7)}$ C harmonic minor scale (Aeolian $\uparrow 7$)

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 **[$\downarrow 3, \downarrow 6$]**.

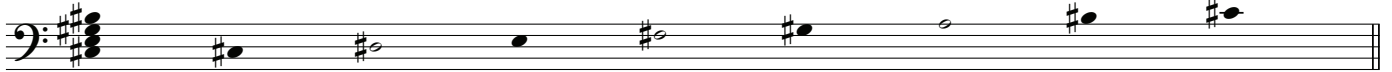
Harmonic minor scales in all keys

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



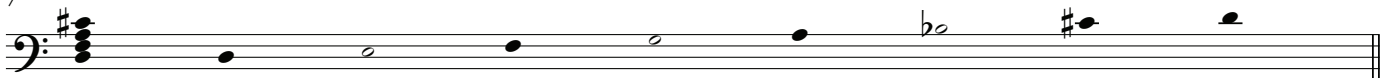
↑
Relative major: E♭

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



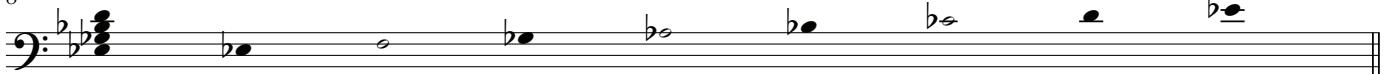
↑
Relative major: E

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



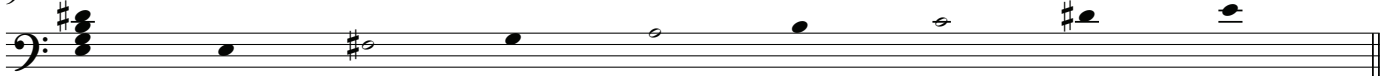
↑
Relative major: F

8 E♭m(maj7) E♭ harmonic minor scale (Aeolian ↑7)



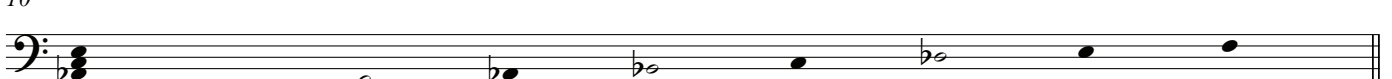
↑
Relative major: G♭

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



↑
Relative major: G

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



↑
Relative major: A♭

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

Relative major: A

The musical notation shows the F# harmonic minor scale in the bass clef. The scale is: F# (root), G# (2nd), A (3rd), B (4th), C# (5th), D (6th), E# (7th). The 7th degree is marked with an upward arrow and the text 'Relative major: A'.

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

Relative major: Bb

The musical notation shows the G harmonic minor scale in the bass clef. The scale is: G (root), A (2nd), Bb (3rd), C (4th), D (5th), Eb (6th), F# (7th). The 7th degree is marked with an upward arrow and the text 'Relative major: Bb'.

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

Relative major: B

The musical notation shows the G# harmonic minor scale in the bass clef. The scale is: G# (root), A# (2nd), B (3rd), C# (4th), D# (5th), E (6th), F# (7th). The 7th degree is marked with an upward arrow and the text 'Relative major: B'.

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

Relative major: C

The musical notation shows the A harmonic minor scale in the bass clef. The scale is: A (root), B (2nd), C (3rd), D (4th), E (5th), F (6th), G# (7th). The 7th degree is marked with an upward arrow and the text 'Relative major: C'.

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

Relative major: Db

The musical notation shows the Bb harmonic minor scale in the bass clef. The scale is: Bb (root), C (2nd), Db (3rd), Eb (4th), F (5th), Gb (6th), Ab (7th). The 7th degree is marked with an upward arrow and the text 'Relative major: Db'.

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

Relative major: D

The musical notation shows the B harmonic minor scale in the bass clef. The scale is: B (root), C (2nd), D (3rd), E (4th), F (5th), G (6th), A# (7th). The 7th degree is marked with an upward arrow and the text 'Relative major: D'.

C harmonic minor scale (Aeolian ↑7)

R 2 ↑ $b3$ 4 5 $b6$ 7 R

Relative major: $E\flat$

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: $A\flat$ to **B** is an **Augmented 2nd [A2]**

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:** [$A\flat$ -B] = [$A\flat$ -A- $B\flat$ -B]

C harmonic minor scale (Aeolian ↑7)

2 Melodic 2nds

M2 m2 M2 M2 m2 A2 m2

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

m3 m3 ↑ M3 m3 M3 M3 m3 m3

Relative major: $E\flat$

4 Harmonic 3rds

m3 m3 ↑ M3 m3 M3 M3 m3 m3

Relative major: $E\flat$

44 C harmonic minor scale (Aeolian ↑7)

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

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
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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

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^{ø7} bIII⁺7 iv⁷ V⁹7 bVI⁷ vii^{ø7} i⁷

7th chords

Key: Cm i⁷ ii^{ø7} bIII⁺7 iv⁷ V⁹7 bVI⁷ vii^{ø7} 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

Key: C#m i ii° bIII+ iv V bVI vii° i

Harmonic triads (chords)

18

Key: C#m i ii° bIII+ iv V bVI vii° i

minor diminished Augmented minor Major Major diminished minor

7th arpeggios

19

Key: C#m i⁷ ii^{o7} bIII⁺7 iv⁷ V^o7 bVI⁷ vii^{o7} i⁷

7th chords

20

Key: C#m i⁷ ii^{o7} bIII⁺7 iv⁷ V^o7 bVI⁷ vii^{o7} i⁷

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

D harmonic minor scale (Aeolian ↑7)

21 Melodic 3rds

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

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

Melodic triads (arpeggios)

23

Key: Dm i ii° bIII+ iv V bVI vii° i

Harmonic triads (chords)

24

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

7th arpeggios

25

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

7th chords

26

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

Key: E_bm i ii[°] bIII⁺ iv V bVI vii[°] i

Harmonic triads (chords)

30

Key: E_bm i ii[°] bIII⁺ iv V bVI vii[°] i

minor diminished Augmented minor Major Major diminished minor

7th arpeggios

31

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

7th chords

32

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

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

E harmonic minor scale (Aeolian ↑7)

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

Key: Em i ii° bIII+ iv V bVI vii° i

Harmonic triads (chords)

36

Key: Em i ii° bIII+ iv V bVI vii° i

minor diminished Augmented minor Major Major diminished minor

7th arpeggios

37

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

7th chords

38

Key: Em i⁷ ii^{ø7} bIII⁷ iv⁷ V⁹ bVI⁷ vii^{ø7} 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: A \flat

40

m3 m3 M3 m3 M3 M3 m3 m3
 Relative major: A \flat

Melodic triads (arpeggios)

41 Fm G $^{\circ}$ A \flat $^{+}$ B \flat m C D \flat E $^{\circ}$ Fm

Key: Fm i ii $^{\circ}$ \flat III $^{+}$ iv V \flat VI vii $^{\circ}$ i

Harmonic triads (chords)

42 Fm G $^{\circ}$ A \flat $^{+}$ B \flat m C D \flat E $^{\circ}$ Fm

Key: Fm i ii $^{\circ}$ \flat III $^{+}$ iv V \flat VI vii $^{\circ}$ i

minor diminished Augmented minor Major Major diminished minor

7th arpeggios

43 Fm(maj7) G $^{\circ}7$ A \flat maj7(\sharp 5) B \flat m7 C7(\flat 9) D \flat Δ 7 E $^{\circ}7$ Fm(maj7)

Key: Fm i 7 ii $^{\circ}7$ \flat III 7 iv 7 V $^{\circ}7$ \flat VI 7 vii $^{\circ}7$ i 7

7th chords

44 Fm(maj7) G $^{\circ}7$ A \flat maj7(\sharp 5) B \flat m7 C7(\flat 9) D \flat Δ 7 E $^{\circ}7$ Fm(maj7)

Key: Fm i 7 ii $^{\circ}7$ \flat III 7 iv 7 V $^{\circ}7$ \flat VI 7 vii $^{\circ}7$ i 7

minor/
major7th half
diminished7th Augmented
Major7th minor7th
Dominant7th
(\flat 9) Major7th diminished7th
minor/
major7th

F# harmonic minor scale (Aeolian ↑7)

45 **Melodic 3rds**

m3 m3 ↑ M3 m3 M3 M3 m3 m3

Relative major: A

46 **Harmonic 3rds**

m3 m3 ↑ M3 m3 M3 M3 m3 m3

Relative major: A

Melodic triads (arpeggios)

47 F#m G#° A+ Bm C# D E#° F#m

Key: F#m i ii° bIII+ iv V bVI vii° i

Harmonic triads (chords)

48 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

49 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

50 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 Gm A° Bb+ Cm D Eb F#° Gm

Key: Gm i ii° bIII+ iv V bVI vii° i

Harmonic triads (chords)

54 Gm A° Bb+ Cm D Eb F#° Gm

Key: Gm i ii° bIII+ iv V bVI vii° i

minor diminished Augmented minor Major Major diminished minor

7th arpeggios

55 Gm(maj7) A°7 Bbmaj7(#5) Cm7 D7(b9) EbΔ7 F#°7 Gm(maj7)

Key: Gm i⁷ ii^{°7} bIII⁷⁺ iv⁷ V^{°7} bVI⁷ vii^{°7} i⁷

7th chords

56 Gm(maj7) A°7 Bbmaj7(#5) Cm7 D7(b9) EbΔ7 F#°7 Gm(maj7)

Key: Gm 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)

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)

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} bIII⁺7 iv⁷ V[°]7 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} bIII⁺7 iv⁷ V[°]7 bVI⁷ vii^{°7} i⁷

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

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

63 Melodic 3rds

m3 m3 M3 m3 M3 M3 m3 m3

Relative major: C

64

m3 m3 M3 m3 M3 M3 m3 m3

Relative major: C

Melodic triads (arpeggios)

65 Am B^o C⁺ Dm E F G^{#o} Am

Key: Am i ii^o bIII⁺ iv V bVI vii^o i

Harmonic triads (chords)

66 Am B^o C⁺ Dm E F G^{#o} Am

Key: Am i ii^o bIII⁺ iv V bVI vii^o i

minor diminished Augmented minor Major Major diminished minor

7th arpeggios

67 Am(maj7) B^{o7} Cmaj7(#5) Dm7 E7(b9) F Δ 7 G^{#o7} Am(maj7)

Key: Am i⁷ ii^{o7} bIII⁷⁺ iv⁷ V₇⁹ bVI⁷ vii^{o7} i⁷

7th chords

68 Am(maj7) B^{o7} Cmaj7(#5) Dm7 E7(b9) F Δ 7 G^{#o7} Am(maj7)

Key: Am i⁷ ii^{o7} bIII⁷⁺ iv⁷ V₇⁹ bVI⁷ vii^{o7} 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**



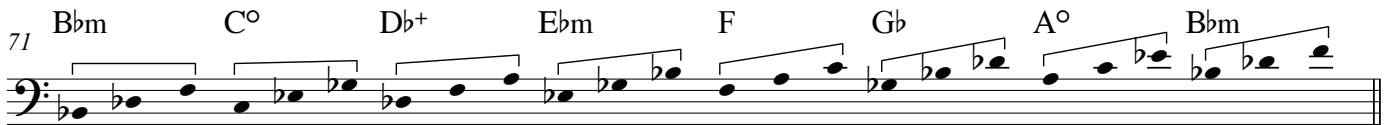
m3 m3 \uparrow M3 m3 M3 M3 m3 m3
Harmonic 3rds **Relative major: D \flat**

70



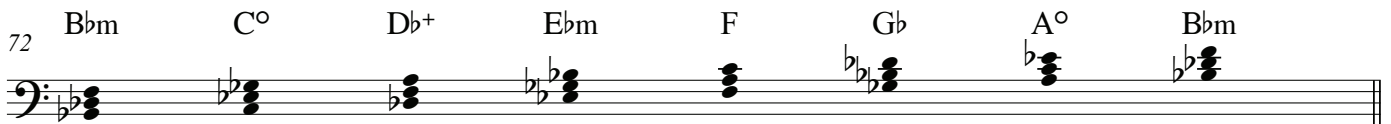
m3 m3 \uparrow M3 m3 M3 M3 m3 m3
Relative major: D \flat

Melodic triads (arpeggios)



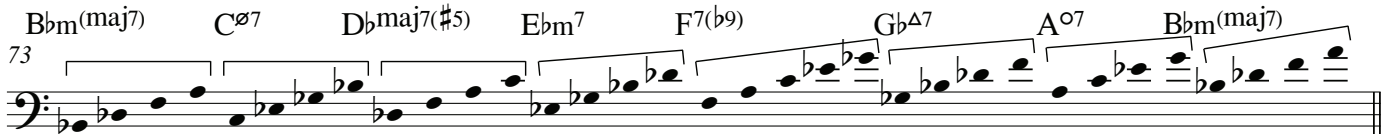
Key: B \flat m i ii $^\circ$ \flat III $^+$ iv V \flat VI vii $^\circ$ i

Harmonic triads (chords)



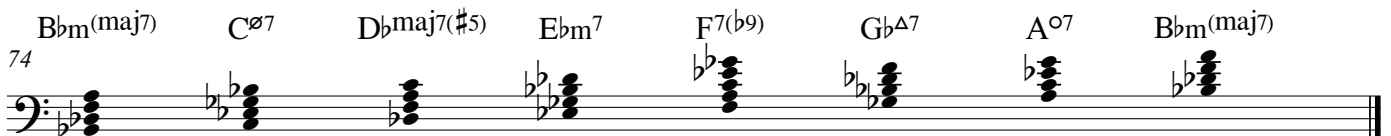
Key: B \flat m i ii $^\circ$ \flat III $^+$ iv V \flat VI vii $^\circ$ i
 minor diminished Augmented minor Major Major diminished minor

7th arpeggios



Key: B \flat m i 7 ii o7 \flat III 7 iv 7 V 7 \flat VI 7 vii o7 i 7

7th chords



Key: B \flat m i 7 ii o7 \flat III 7 iv 7 V 7 \flat VI 7 vii o7 i 7
 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
Harmonic 3rds **Relative major: D**

76

m3 m3 ↑ M3 m3 M3 M3 m3 m3
Relative major: D

Melodic triads (arpeggios)

77 Bm C#^o D⁺ Em F# G A#^o Bm

Key: Bm i ii^o bIII⁺ iv V bVI vii^o i

Harmonic triads (chords)

78 Bm C#^o D⁺ Em F# G A#^o Bm

Key: Bm i ii^o bIII⁺ iv V bVI vii^o i
 minor diminished Augmented minor Major Major diminished minor

7th arpeggios

79 Bm(maj7) C#^{o7} Dmaj7(#5) Em7 F#7(b9) G^{Δ7} A#^{o7} Bm(maj7)

Key: Bm i⁷ ii^{o7} bIII⁷⁺ iv⁷ V^{o7} bVI⁷ vii^{o7} i⁷

7th chords

80 Bm(maj7) C#^{o7} Dmaj7(#5) Em7 F#7(b9) G^{Δ7} A#^{o7} Bm(maj7)

Key: Bm i⁷ ii^{o7} bIII⁷⁺ iv⁷ V^{o7} bVI⁷ vii^{o7} 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 $\uparrow 7$)

R 2 $\flat 3$ 4 5 $\flat 6$ 7

mode **i** - Aeolian $\uparrow 7$

mode **ii°** - Locrian $\uparrow 6$

mode **\flat III** - Ionian $\uparrow 5$

mode **iv** - Dorian $\uparrow 4$

mode **V** - Phrygian $\uparrow 3$ ("Phrygian Dominant")

mode **\flat VI** - Lydian $\uparrow 2$

mode **vii°** - Locrian $\downarrow 4 \downarrow 7$

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

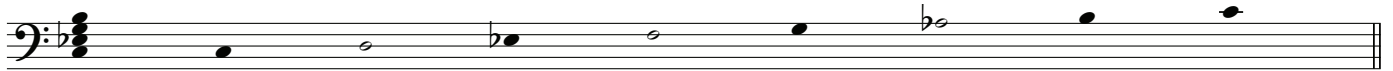
2 Cm(maj7) C Aeolian \uparrow 7 scale; mode i ("harmonic minor")

↑
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")

i⁷

4 D^{ø7} D Locrian ↑6 scale; mode ii^o

Ebmaj7(#5) Eb Ionian ↑5 scale; mode bIII

ii^{o7}bIII⁷

6 Fm⁷ F Dorian ↑4 scale; mode iv

G7(b9) G Phrygian ↑3 scale; mode V

iv⁷V⁹

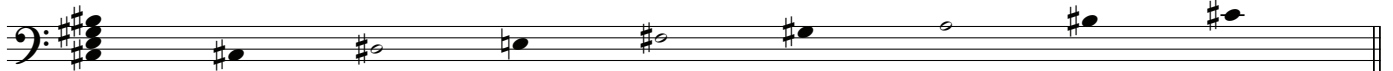
8 AbΔ7 Ab Lydian ↑2 scale; mode bVI

B^{o7} B Locrian ↓4↓↓7 scale; mode vii^o

bVI⁷vii^{o7}

C# harmonic minor

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

i⁷

11 D#^{ø7} D# Locrian ↑6 scale; mode ii^o

Emaj7(#5) E Ionian ↑5 scale; mode bIII

ii^{o7}bIII⁷

13 F#m⁷ F# Dorian ↑4 scale; mode iv

G#7(b9) G# Phrygian ↑3 scale; mode V

iv⁷V⁹

15 AΔ7 A Lydian ↑2 scale; mode bVI

B#^{o7} B# Locrian ↓4↓↓7 scale; mode vii^o

bVI⁷vii^{o7}

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 **A^{7(b9)}** A Phrygian ↑3 scale; mode V

iv⁷ V⁹

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 **Bb^{7(b9)}** Bb Phrygian ↑3 scale; mode V

iv⁷ V⁹

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 $\uparrow 7$ scale; mode i ("harmonic minor")

i^7

32 $F\#\ominus^7$ F# Locrian $\uparrow 6$ scale; mode ii^\ominus $G^{maj7(\#5)}$ G Ionian $\uparrow 5$ scale; mode $\flat III$

$ii^{\ominus 7}$ $\flat III^7_+$

34 Am^7 A Dorian $\uparrow 4$ scale; mode iv $B^7(\flat 9)$ B Phrygian $\uparrow 3$ scale; mode V

iv^7 V^9_7

36 $C^{\Delta 7}$ C Lydian $\uparrow 2$ scale; mode $\flat VI$ $D\#\ominus^7$ D# Locrian $\downarrow 4 \downarrow \downarrow 7$ scale; mode vii^\ominus

$\flat VI^7$ $vii^{\ominus 7}$

F harmonic minor

38 $Fm^{(maj7)}$ F Aeolian $\uparrow 7$ scale; mode i ("harmonic minor")

i^7

39 $G^{\ominus 7}$ G Locrian $\uparrow 6$ scale; mode ii^\ominus $A\flat^{maj7(\#5)}$ Ab Ionian $\uparrow 5$ scale; mode $\flat III$

$ii^{\ominus 7}$ $\flat III^7_+$

41 $B\flat m^7$ Bb Dorian $\uparrow 4$ scale; mode iv $C^7(\flat 9)$ C Phrygian $\uparrow 3$ scale; mode V

iv^7 V^9_7

43 $D\flat^{\Delta 7}$ Db Lydian $\uparrow 2$ scale; mode $\flat VI$ $E^{\ominus 7}$ E Locrian $\downarrow 4 \downarrow \downarrow 7$ scale; mode vii^\ominus

$\flat VI^7$ $vii^{\ominus 7}$

F# harmonic minor

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

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

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

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

G harmonic minor

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

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

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

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

64 G# harmonic minor

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

59

A#^{ø7} A# Locrian ↑6 scale; mode ii^o 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

E^{Δ7} E Lydian ↑2 scale; mode bVI Fx^{o7} Fx Locrian ↓4↓↓7 scale; mode vii^o

64

A harmonic minor

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

66

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

67

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

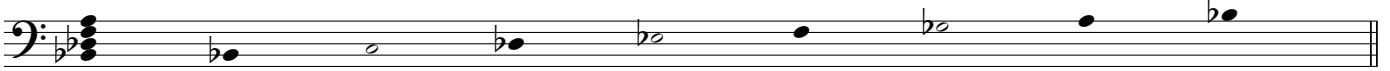
69

F^{Δ7} F Lydian ↑2 scale; mode bVI G#^{o7} G# Locrian ↓4↓↓7 scale; mode vii^o

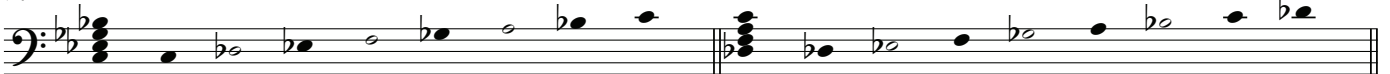
71

B \flat harmonic minor

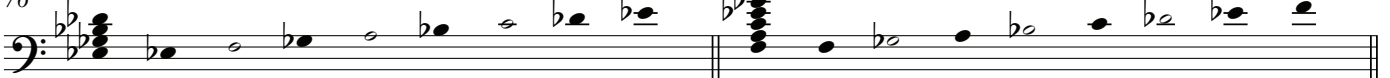
73 B \flat m(maj7) B \flat Aeolian \uparrow 7 scale; mode i ("harmonic minor")



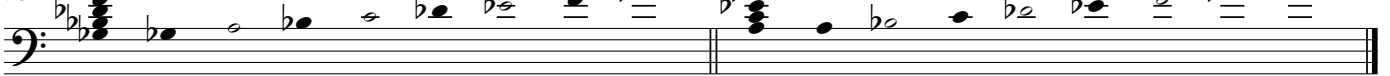
74 C \circ ⁷ C \circ Locrian \uparrow 6 scale; mode ii \circ D \flat maj7(#5) D \flat Ionian \uparrow 5 scale; mode bIII



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

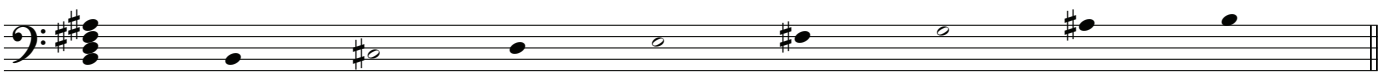


bVI⁷

vii \circ ⁷

B harmonic minor

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



81 C \sharp \circ 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



bVI⁷

vii \circ ⁷

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

4 C^{∅7} C Locrian \uparrow 6 scale; mode ii[∅]

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")

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

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")**

 \flat III⁷

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

iv⁷

↓3

↑4

↓7

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 [↓3,↑4,↓7].**

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

 \flat III⁷

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

V⁹

↓2

↓6

↓7

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 [↓2,↓6,↓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 (\sharp)2, and raised (\sharp)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♭],[E♭],[F♭],[G♭],[A♭] and [B♭].

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")

i^7 ↓3 ↓6

17 C \emptyset^7 C Locrian ↑6 scale; mode ii $^\circ$ Cmaj7(#5) C Ionian ↑5 scale; mode bIII

$ii^{7\circ}$ ↓2 ↓3 ↓5 ↓7 $bIII^7$ ↑5

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

iv^7 ↓3 ↑4 ↓7 V_7^9 ↓2 ↓6 ↓7

21 C Δ^7 C Lydian ↑2 scale; mode bVI C \emptyset^7 C Locrian ↓4↓7 scale; mode vii $^\circ$

bVI^7 ↑2 ↑4 $vii^{7\circ}$ ↓2 ↓3 ↓4 ↓5 ↓6 ↓↓7

C#root

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

i^7 ↓3 ↓6

24 C# \emptyset^7 C# Locrian ↑6 scale; mode ii $^\circ$ Dbmaj7(#5) Db Ionian ↑5 scale; mode bIII

$ii^{7\circ}$ ↓2 ↓3 ↓5 ↓7 $bIII^7$ ↑5

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

iv^7 ↓3 ↑4 ↓7 V_7^9 ↓2 ↓6 ↓7

28 C# Δ^7 C# Lydian ↑2 scale; mode bVI C# \emptyset^7 C# Locrian ↓4↓7 scale; mode vii $^\circ$

bVI^7 ↑2 ↑4 $vii^{7\circ}$ ↓2 ↓3 ↓4 ↓5 ↓6 ↓↓7

D root

30 $Dm^{(maj7)}$ D Aeolian $\uparrow 7$ scale; mode i ("harmonic minor")

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

31 $D\text{ø}^7$ D Locrian $\uparrow 6$ scale; mode ii° $Dm^{maj7(\#5)}$ D Ionian $\uparrow 5$ scale; mode $bIII$

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

33 Dm^7 D Dorian $\uparrow 4$ scale; mode iv $D7(b9)$ D Phrygian $\uparrow 3$ scale; mode V

iv^7 $\downarrow 3$ $\uparrow 4$ $\downarrow 7$ V_7^9 $\downarrow 2$ $\downarrow 6$ $\downarrow 7$

35 $D\Delta^7$ D Lydian $\uparrow 2$ scale; mode bVI $D\text{ø}^7$ D Locrian $\downarrow 4 \downarrow 7$ scale; mode vii°

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

E \flat root

37 $Ebm^{(maj7)}$ E \flat Aeolian $\uparrow 7$ scale; mode i ("harmonic minor")

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

38 $D\#\text{ø}^7$ D# Locrian $\uparrow 6$ scale; mode ii° $Ebm^{maj7(\#5)}$ E \flat Ionian $\uparrow 5$ scale; mode $bIII$

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

40 Ebm^7 E \flat Dorian $\uparrow 4$ scale; mode iv $Eb7(b9)$ E \flat Phrygian $\uparrow 3$ scale; mode V

iv^7 $\downarrow 3$ $\uparrow 4$ $\downarrow 7$ V_7^9 $\downarrow 2$ $\downarrow 6$ $\downarrow 7$

42 $Eb\Delta^7$ E \flat Lydian $\uparrow 2$ scale; mode bVI $D\#\text{ø}^7$ D# Locrian $\downarrow 4 \downarrow 7$ scale; mode vii°

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

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° $E_{maj7(\#5)}$ E Ionian $\uparrow 5$ scale; mode $bIII$

ii^{o7} $\downarrow 2$ $\downarrow 3$ $\downarrow 5$ $\downarrow 7$ $bIII^7$ $\uparrow 5$

47 E_{m7} E Dorian $\uparrow 4$ scale; mode iv $E7(b9)$ E Phrygian $\uparrow 3$ scale; mode V

iv^7 $\downarrow 3$ $\uparrow 4$ $\downarrow 7$ V_7^9 $\downarrow 2$ $\downarrow 6$ $\downarrow 7$

49 $E^{\Delta 7}$ E Lydian $\uparrow 2$ scale; mode bVI E^{o7} E Locrian $\downarrow 4 \downarrow 7$ scale; mode vii°

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

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° $F_{maj7(\#5)}$ F Ionian $\uparrow 5$ scale; mode $bIII$

ii^{o7} $\downarrow 2$ $\downarrow 3$ $\downarrow 5$ $\downarrow 7$ $bIII^7$ $\uparrow 5$

54 F_{m7} F Dorian $\uparrow 4$ scale; mode iv $F7(b9)$ F Phrygian $\uparrow 3$ scale; mode V

iv^7 $\downarrow 3$ $\uparrow 4$ $\downarrow 7$ V_7^9 $\downarrow 2$ $\downarrow 6$ $\downarrow 7$

56 $F^{\Delta 7}$ F Lydian $\uparrow 2$ scale; mode bVI F^{o7} F Locrian $\downarrow 4 \downarrow 7$ scale; mode vii°

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

F#root58 **F#m(maj7) F# Aeolian ↑7 scale; mode i ("harmonic minor")**

59 **F#ø7 F# Locrian ↑6 scale; mode ii°** **F#maj7(#5) F# Ionian ↑5 scale; mode bIII**

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

63 **F#Δ7 F# Lydian ↑2 scale; mode bVI** **F#ø7 F# Locrian ↓4↓7 scale; mode vii°**
G root65 **Gm(maj7) G Aeolian ↑7 scale; mode i ("harmonic minor")**

66 **Gø7 G Locrian ↑6 scale; mode ii°** **Gmaj7(#5) G Ionian ↑5 scale; mode bIII**

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

70 **GΔ7 G Lydian ↑2 scale; mode bVI** **Gø7 G Locrian ↓4↓7 scale; mode vii°**

G#root

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

73 G#ø7 G# Locrian ↑6 scale; mode ii° Abmaj7(#5) Ab Ionian ↑5 scale; mode bIII

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

77 AbΔ7 Ab Lydian ↑2 scale; mode bVI G#ø7 G# Locrian ↓4↓7 scale; mode vii°

A root

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

80 Aø7 A Locrian ↑6 scale; mode ii° Amaj7(#5) A Ionian ↑5 scale; mode bIII

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

84 AΔ7 A Lydian ↑2 scale; mode bVI Aø7 A Locrian ↓4↓7 scale; mode vii°

B \flat root86 **B \flat m^(maj7) B \flat Aeolian \uparrow 7 scale; mode i ("harmonic minor")**

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

87 **A \sharp ^{o7} A \sharp Locrian \uparrow 6 scale; mode ii $^\circ$ B \flat maj7($\sharp 5$) B \flat Ionian \uparrow 5 scale; mode \flat III**

ii^{o7} $\downarrow 2$ $\downarrow 3$ $\downarrow 5$ $\downarrow 7$ $\flat III^7$ $\uparrow 5$

89 **B \flat m⁷ B \flat Dorian \uparrow 4 scale; mode iv B \flat ^{7(b9)} 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 ^{A7} B \flat Lydian \uparrow 2 scale; mode \flat VI A \sharp ^{o7} A \sharp Locrian $\downarrow 4 \downarrow 7$ scale; mode vii $^\circ$**

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

B root93 **Bm^(maj7) B Aeolian \uparrow 7 scale; mode i ("harmonic minor")**

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

94 **B^{o7} B Locrian \uparrow 6 scale; mode ii $^\circ$ Bmaj7($\sharp 5$) B Ionian \uparrow 5 scale; mode \flat III**

ii^{o7} $\downarrow 2$ $\downarrow 3$ $\downarrow 5$ $\downarrow 7$ $\flat III^7$ $\uparrow 5$

96 **Bm⁷ B Dorian \uparrow 4 scale; mode iv B^{7(b9)} 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^{A7} B Lydian \uparrow 2 scale; mode \flat VI B^{o7} B Locrian $\downarrow 4 \downarrow 7$ scale; mode vii $^\circ$**

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

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)**

(b3) ↑6 ↑7 (b7) (b6) (b3)

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")**

(b3) (b6) (b7)

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

(b3) ↑6 ↑7

↑
Relative major: Eb

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: Eb 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")

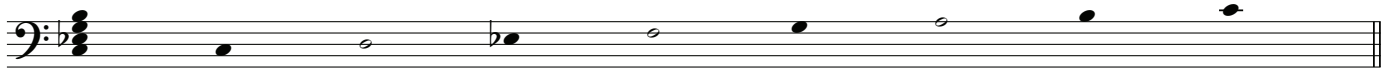
5 $C_m^{(maj7)}$ C melodic minor scale (Ionian $\downarrow 3$)

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 **[\mathbb{1}3]**.

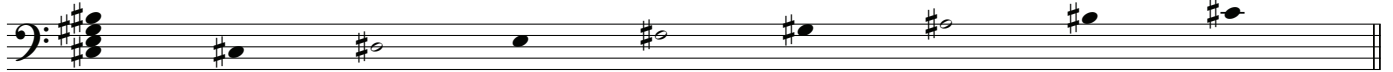
Melodic minor scales in all keys

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



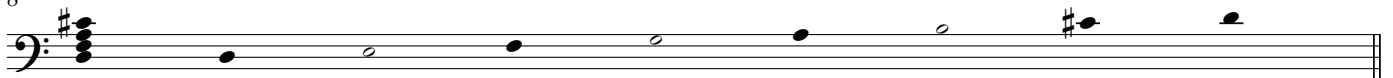
↑
Relative major: Eb

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



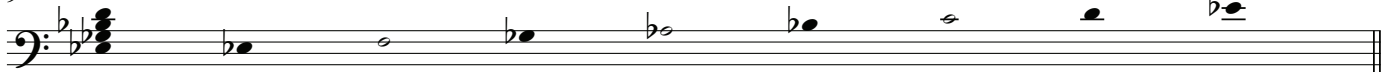
↑
Relative major: E

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



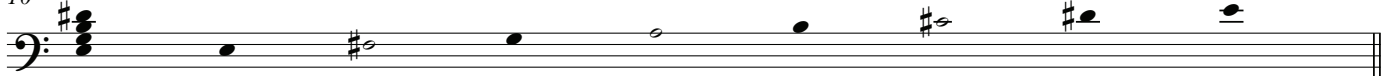
↑
Relative major: F

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



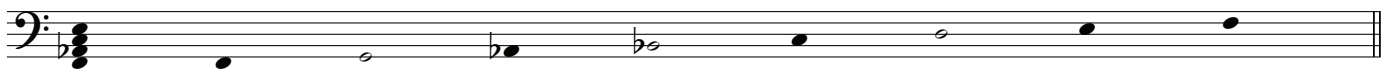
↑
Relative major: Gb

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



↑
Relative major: G

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



↑
Relative major: Ab

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

Relative major: A

Detailed description: This block shows the F#m melodic minor scale in bass clef. The scale starts with a triad of F#, C#, and G# in the bass. The notes of the scale are F#, G, A, B, C, D, E, and F#. An upward-pointing arrow is positioned below the A note, with the text 'Relative major: A' underneath it.

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

Relative major: B \flat

Detailed description: This block shows the Gm melodic minor scale in bass clef. The scale starts with a triad of G, Bb, and F in the bass. The notes of the scale are G, Ab, Bb, C, D, E, F, and G. An upward-pointing arrow is positioned below the Bb note, with the text 'Relative major: Bb' underneath it.

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

Relative major: B

Detailed description: This block shows the G#m melodic minor scale in bass clef. The scale starts with a triad of G#, B, and F# in the bass. The notes of the scale are G#, A, B, C, D, E, F, and G#. An upward-pointing arrow is positioned below the B note, with the text 'Relative major: B' underneath it.

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

Relative major: C

Detailed description: This block shows the Am melodic minor scale in bass clef. The scale starts with a triad of A, C, and G in the bass. The notes of the scale are A, B, C, D, E, F, G, and A. An upward-pointing arrow is positioned below the C note, with the text 'Relative major: C' underneath it.

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

Relative major: D \flat

Detailed description: This block shows the Bbm melodic minor scale in bass clef. The scale starts with a triad of Bb, D, and F in the bass. The notes of the scale are Bb, C, D, Eb, F, G, Ab, and Bb. An upward-pointing arrow is positioned below the D note, with the text 'Relative major: Db' underneath it.

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

Relative major: D

Detailed description: This block shows the Bm melodic minor scale in bass clef. The scale starts with a triad of B, D, and F in the bass. The notes of the scale are B, C, D, E, F, G, A, and B. An upward-pointing arrow is positioned below the D note, with the text 'Relative major: D' underneath it.

C melodic minor scale (Ionian ↓3)

R 2 ↑^b3 4 5 6 7 R

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

M2 m2 M2 M2 M2 M2 m2

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)

Melodic 3rds

m3 m3 ↑ M3 M3 M3 M3 m3 m3

Relative major: Eb

Harmonic 3rds

m3 m3 ↑ M3 M3 M3 M3 m3 m3

Relative major: Eb

82 C melodic minor scale (Ionian ↓3)

Melodic triads (arpeggios)

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

Harmonic triads (chords)

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

C melodic minor scale (Ionian ↓3)

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: Eb

m3 m3 ↑ M3 M3 M3 M3 m3 m3

Relative major: Eb

Melodic triads (arpeggios)

11 Cm Dm Eb+ F G A° B° Cm

Key: Cm i ii bIII+ IV V vi° vii° i

Harmonic triads (chords)

12 Cm Dm Eb+ F G A° B° Cm

Key: Cm i ii bIII+ IV V vi° vii° i
 minor minor Augmented Major Major diminished diminished minor

7th arpeggios

13 Cm(maj7) D-7 Ebmaj7(#5) F7 G7 A°7 B°7 Cm(maj7)

Key: Cm i⁷ ii⁷ bIII⁷ IV⁷ V⁷ vi^{°7} vii^{°7} i⁷

7th chords

14 Cm(maj7) D-7 Ebmaj7(#5) F7 G7 A°7 B°7 Cm(maj7)

Key: Cm 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

C# melodic minor scale (Ionian ↓3)

15 Melodic 3rds

m3 m3 ↑ M3 M3 M3 M3 m3 m3

16 Harmonic 3rds

Relative major: E

m3 m3 ↑ M3 M3 M3 M3 m3 m3

Relative major: E

Melodic triads (arpeggios)

17 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)

18 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

19 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

20 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)

23

Key:Dm i ii bIII⁺ IV V vi[°] vii[°] i

Harmonic triads (chords)

24

Key:Dm i ii bIII⁺ IV V vi[°] vii[°] i

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

25

Key:Dm i⁷ ii⁷ bIII⁷⁺ IV⁷ V⁷ vi^{°7} vii^{°7} i⁷

7th chords

26

Key:Dm 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

E \flat melodic minor scale (Ionian \downarrow 3)

27 **Melodic 3rds**

m3 m3 \uparrow M3 M3 M3 M3 m3 m3

28 **Harmonic 3rds**

Relative major: G \flat

m3 m3 \uparrow M3 M3 M3 M3 m3 m3

Relative major: G \flat

Melodic triads (arpeggios)

29

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

Harmonic triads (chords)

30

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

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

E \flat m(maj7) F-7 G \flat maj7(#5) A \flat 7 B \flat 7 C \emptyset 7 D \emptyset 7 E \flat m(maj7)

31

Key: E \flat m i 7 ii 7 \flat III $^7_+$ IV 7 V 7 vi $^{\circ 7}$ vii $^{\circ 7}$ i 7

7th chords

E \flat m(maj7) F-7 G \flat maj7(#5) A \flat 7 B \flat 7 C \emptyset 7 D \emptyset 7 E \flat m(maj7)

32

Key: E \flat m i 7 ii 7 \flat III $^7_+$ IV 7 V 7 vi $^{\circ 7}$ vii $^{\circ 7}$ i 7

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

Relative major: G

m3 m3 ↑ M3 M3 M3 M3 m3 m3

Relative major: G

Melodic triads (arpeggios)

35

Key: Em i ii bIII⁺ IV V vi^o vii^o i

Harmonic triads (chords)

36

Key: Em i ii bIII⁺ IV V vi^o vii^o i

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

37

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

7th chords

38

Key: Em 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

F melodic minor scale (Ionian ↓3)

39 Melodic 3rds

m3 m3 M3 M3 M3 M3 m3 m3

40 Harmonic 3rds

Relative major: A^b

m3 m3 M3 M3 M3 M3 m3 m3

Relative major: A^b

Melodic triads (arpeggios)

41 Fm Gm A^{b+} B^b C D^o E^o Fm

Key: Fm i ii ^bIII⁺ IV V vi^o vii^o i

Harmonic triads (chords)

42 Fm Gm A^{b+} B^b C D^o E^o Fm

Key: Fm i ii ^bIII⁺ IV V vi^o vii^o i

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

43 Fm(maj7) G-7 A^bmaj7(#5) B^b7 C7 D^o7 E^o7 Fm(maj7)

Key: Fm i⁷ ii⁷ ^bIII⁺7 IV⁷ V⁷ vi^o7 vii^o7 i⁷

7th chords

44 Fm(maj7) G-7 A^bmaj7(#5) B^b7 C7 D^o7 E^o7 Fm(maj7)

Key: Fm i⁷ ii⁷ ^bIII⁺7 IV⁷ V⁷ vi^o7 vii^o7 i⁷

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

F# melodic minor scale (Ionian ↓3)

45 **Melodic 3rds**

m3 m3 ↑ M3 M3 M3 M3 m3 m3

Relative major: A

46 **Harmonic 3rds**

m3 m3 ↑ M3 M3 M3 M3 m3 m3

Relative major: A

Melodic triads (arpeggios)

47

Key: F#m i ii bIII⁺ IV V vi^o vii^o i

Harmonic triads (chords)

48

Key: F#m i ii bIII⁺ IV V vi^o vii^o i

minor minor Augmented Major Major diminished diminished minor

7th arpeggios

49

Key: F#m i⁷ ii⁷ bIII⁷⁺ IV⁷ V⁷ vi^{o7} vii^{o7} i⁷

7th chords

50

Key: F#m i⁷ ii⁷ bIII⁷⁺ IV⁷ V⁷ vi^{o7} vii^{o7} 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: B \flat

m3 m3 ↑ M3 M3 M3 M3 m3 m3

Relative major: B \flat

Melodic triads (arpeggios)

53

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

Harmonic triads (chords)

54

Key: Gm i ii \flat III $^+$ IV V vi $^\circ$ vii $^\circ$ i
 minor minor Augmented Major Major diminished diminished minor

7th arpeggios

55

Key: Gm i 7 ii 7 \flat III $^7_+$ IV 7 V 7 vi $^{\circ 7}$ vii $^{\circ 7}$ i 7

7th chords

56

Key: Gm i 7 ii 7 \flat III $^7_+$ IV 7 V 7 vi $^{\circ 7}$ vii $^{\circ 7}$ i 7
 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)

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)

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

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

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

A melodic minor scale (Ionian ↓3)

63 Melodic 3rds

m3 m3 ↑ M3 M3 M3 M3 m3 m3

64 Harmonic 3rds

Relative major: C

m3 m3 ↑ M3 M3 M3 M3 m3 m3

Relative major: C

Melodic triads (arpeggios)

65

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

Harmonic triads (chords)

66

Key: Am i ii bIII⁺ IV V vi[°] vii[°] i
 minor minor Augmented Major Major diminished diminished minor

7th arpeggios

67

Key: Am i⁷ ii⁷ bIII⁷⁺ IV⁷ V⁷ vi^{°7} vii^{°7} i⁷

7th chords

68

Key: Am 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

B \flat melodic minor scale (Ionian \downarrow 3)

69 **Melodic 3rds**

m3 m3 \uparrow M3 M3 M3 M3 m3 m3

70 **Harmonic 3rds**

Relative major: D \flat

m3 m3 \uparrow M3 M3 M3 M3 m3 m3

Relative major: D \flat

Melodic triads (arpeggios)

71

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

Harmonic triads (chords)

72

Key: B \flat m i ii \flat III $^+$ IV V vi $^\circ$ vii $^\circ$ i
 minor minor Augmented Major Major diminished diminished minor

7th arpeggios

73

Key: B \flat m i 7 ii 7 \flat III $^7_+$ IV 7 V 7 vi $^{\circ 7}$ vii $^{\circ 7}$ i 7

7th chords

74

Key: B \flat m i 7 ii 7 \flat III $^7_+$ IV 7 V 7 vi $^{\circ 7}$ vii $^{\circ 7}$ i 7
 minor/
major7th minor7th Augmented
Major7th Dom.7th Dom.7th half
dim.7th half
dim.7th minor/
major7th

B melodic minor scale (Ionian ↓3)

75 Melodic 3rds

m3 m3 M3 M3 M3 M3 m3 m3

76 Harmonic 3rds

Relative major: D

m3 m3 M3 M3 M3 M3 m3 m3

Relative major: D

Melodic triads (arpeggios)

77

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

Harmonic triads (chords)

78

Key: Bm i ii \flat III⁺ IV V vi^o vii^o i
 minor minor Augmented Major Major diminished diminished minor

7th arpeggios

79

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

7th chords

80

Key: Bm 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

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 ♯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")

i⁷

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

ii⁷ bIII⁷

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

IV⁷ V⁷

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

vi^{ø7} vii^{ø7}

C# melodic minor

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

i⁷

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

ii⁷ bIII⁷

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

IV⁷ V⁷

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

vi^{ø7} vii^{ø7}

identified as C Locrian ↓4 in Ch. 12

D melodic minor

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

i⁷

18 E-7 E Dorian ↓2 scale; mode ii Fmaj7(#5) F Lydian ↑5 scale; mode bIII

ii⁷ bIII⁷

20 G7 G Lydian ↓7 scale; mode IV A7 A Mixolydian ↓6 scale; mode V

IV⁷ V⁷

22 Bø7 B Aeolian ↓5 scale; mode vi° C#ø7 C# Locrian ↓4 scale; mode vii°

vi^{ø7} vii^{ø7}

E^b melodic minor

24 E^bm(maj7) E^b Ionian ↓3 scale; mode i ("Jazz minor")

i⁷

25 F-7 F Dorian ↓2 scale; mode ii G^bmaj7(#5) G^b Lydian ↑5 scale; mode bIII

ii⁷ bIII⁷

27 A^b7 A^b Lydian ↓7 scale; mode IV B^b7 B^b Mixolydian ↓6 scale; mode V

IV⁷ V⁷

29 Cø7 C Aeolian ↓5 scale; mode vi° Dø7 D Locrian ↓4 scale; mode vii°

vi^{ø7} vii^{ø7}

100 E melodic minor

31 Em(maj7) E Ionian ↓3 scale; mode i ("Jazz minor")

i⁷

32 F#⁻⁷ F# Dorian ↓2 scale; mode ii Gmaj7(#5) G Lydian ↑5 scale; mode \flat III

ii⁷

\flat III⁷

34 A⁷ A Lydian ↓7 scale; mode IV B⁷ B Mixolydian ↓6 scale; mode V

IV⁷

V⁷

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")

i⁷

39 G⁻⁷ G Dorian ↓2 scale; mode ii Abmaj7(#5) Ab Lydian ↑5 scale; mode \flat III

ii⁷

\flat III⁷

41 Bb⁷ Bb Lydian ↓7 scale; mode IV C⁷ C Mixolydian ↓6 scale; mode V

IV⁷

V⁷

43 D^{ø7} D Aeolian ↓5 scale; mode vi^o E^{ø7} 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")

46 G#-7 G# Dorian ↓2 scale; mode ii A maj7(#5) A Lydian ↑5 scale; mode bIII

48 B7 B Lydian ↓7 scale; mode IV C#7 C# Mixolydian ↓6 scale; mode V

50 D#ø7 D# Aeolian ↓5 scale; mode vi° E#ø7 E# Locrian ↓4 scale; mode vii°

G melodic minor

52 Gm(maj7) G Ionian ↓3 scale; mode i ("Jazz minor")

53 A-7 A Dorian ↓2 scale; mode ii Bb maj7(#5) Bb Lydian ↑5 scale; mode bIII

55 C7 C Lydian ↓7 scale; mode IV D7 D Mixolydian ↓6 scale; mode V

57 Eø7 E Aeolian ↓5 scale; mode vi° F#ø7 F# Locrian ↓4 scale; mode vii°

102 G# melodic minor

G#m(maj7) 59 G# Ionian ↓3 scale; mode i ("Jazz minor")

A#⁷ A# Dorian ↓2 scale; mode ii Bmaj7(#5) B Lydian ↑5 scale; mode bIII

C#⁷ C# Lydian ↓7 scale; mode IV D#⁷ D# Mixolydian ↓6 scale; mode V

E#^{ø7} E# Aeolian ↓5 scale; mode vi° Fx^{ø7} Fx Locrian ↓4 scale; mode vii°

A melodic minor

Am(maj7) 66 A Ionian ↓3 scale; mode i ("Jazz minor")

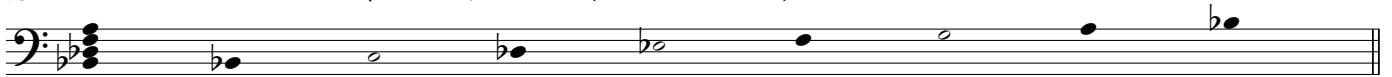
B⁷ B Dorian ↓2 scale; mode ii Cmaj7(#5) C Lydian ↑5 scale; mode bIII

D⁷ D Lydian ↓7 scale; mode IV E⁷ E Mixolydian ↓6 scale; mode V

F#^{ø7} F# Aeolian ↓5 scale; mode vi° G#^{ø7} G# Locrian ↓4 scale; mode vii°

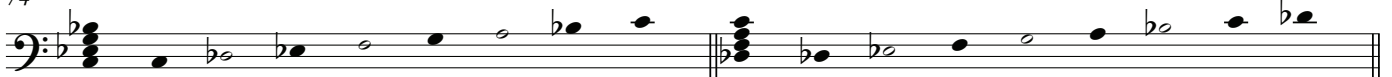
B \flat melodic minor

73 **B \flat m(maj 7) B \flat Ionian \downarrow 3 scale; mode i ("Jazz minor")**



i 7

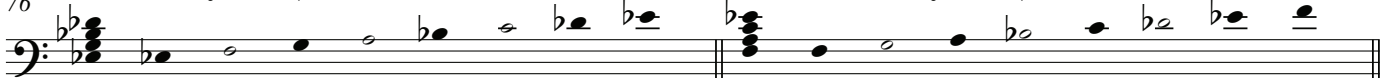
74 **C $^{-7}$ C Dorian \downarrow 2 scale; mode ii** **D \flat maj 7 (#5) D \flat Lydian \uparrow 5 scale; mode \flat III**



ii 7

\flat III 7

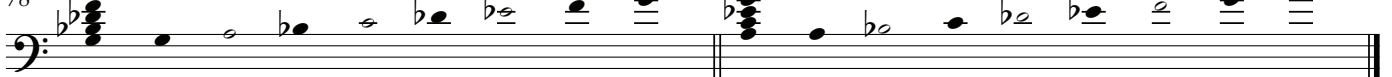
76 **E \flat 7 E \flat Lydian \downarrow 7 scale; mode IV** **F 7 F Mixolydian \downarrow 6 scale; mode V**



IV 7

V 7

78 **G \emptyset 7 G Aeolian \downarrow 5 scale; mode vi $^{\circ}$** **A \emptyset 7 A Locrian \downarrow 4 scale; mode vii $^{\circ}$**

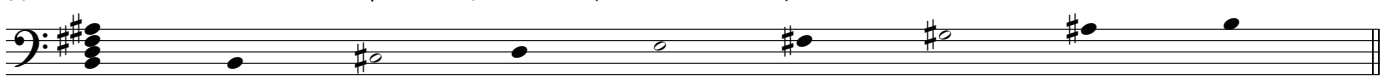


vi $^{\circ 7}$

vii $^{\circ 7}$

B melodic minor

80 **Bm(maj 7) B Ionian \downarrow 3 scale; mode i ("Jazz minor")**



i 7

81 **C $\#^{-7}$ C $\#$ Dorian \downarrow 2 scale; mode ii** **Dmaj 7 (#5) D Lydian \uparrow 5 scale; mode \flat III**



ii 7

\flat III 7

83 **E 7 E Lydian \downarrow 7 scale; mode IV** **F 7 F $\#$ Mixolydian \downarrow 6 scale; mode V**



IV 7

V 7

85 **G $\#$ \emptyset 7 G $\#$ Aeolian \downarrow 5 scale; mode vi $^{\circ}$** **A $\#$ \emptyset 7 A $\#$ Locrian \downarrow 4 scale; mode vii $^{\circ}$**



vi $^{\circ 7}$

vii $^{\circ 7}$

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 $\downarrow 3$** :

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

$\flat III^7$

$^2 C_m^{(maj^7)}$ **C** **Ionian $\downarrow 3$ scale ("melodic minor"); mode i**

i^7 $\downarrow 3$

Detailed description: The image shows two musical staves in bass clef. The first staff is for the C Ionian scale, also referred to as mode bIII ('Major'). It starts with a C major triad (C-E-G) and shows the scale notes: C, D, E, F, G, A, B. The second staff is for the C Ionian down 3 scale, also referred to as mode i. It starts with a C minor triad (C-Eb-G) and shows the scale notes: C, D, Eb, F, G, A, B. Below the second staff, the notes i^7 and down 3 are aligned with the notes C and Eb respectively.

a. **C Ionian mode** and **C Ionian $\downarrow 3$ mode** are **parallel scales**, sharing the **root note C**.

1. **C Ionian** contains the note [**E**].
2. **C Ionian $\downarrow 3$** contains the note [**E \flat**].
3. **C Ionian $\downarrow 3$ mode** is equivalent to **C Ionian mode** with a **lowered (\flat)3**.
4. The **scale formula** for **Ionian $\downarrow 3$ mode** is [**$\downarrow 3$**].

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

^bIII⁷

4 C⁻⁷ C Dorian ↓2 scale; mode ii

ii⁷

↓2

↓3

↓7

b. C Ionian mode and C Dorian ↓2 mode are parallel scales.

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

1.2 C Dorian ↓2 contains the notes [D^b],[E^b] and [B^b].

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

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

3. The scale formula for Dorian ↓2 mode is [↓2,↓3,↓7].

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

^bIII⁷

6 C^{maj7(#5)} C Lydian ↑5 scale; mode ^bIII

^bIII⁷

↑4

↑5

c. C Ionian mode and C Lydian ↑5 mode are parallel scales.

1.1 C Ionian contains the notes [F] and [G].

1.2 C Lydian ↑5 contains the notes [F[#]] and [G[#]].

2. C Lydian ↑5 mode is equivalent to C Ionian mode with a

raised (#)4 and raised (#)5.

3. The scale formula for Lydian ↑5 mode is [↑4,↑5].

106
7 C^{Δ7} C Ionian scale; mode \flat III ("Major")

\flat III⁷

8 C⁷ C Lydian \downarrow 7 scale; mode IV

IV⁷

\uparrow 4

\downarrow 7

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 [Bb].

2. C Lydian \downarrow 7 mode is equivalent to C Ionian mode with a raised (#)4, and lowered (b)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

10 C⁷ C Mixolydian \downarrow 6 scale; mode V

V⁷

\downarrow 6

\downarrow 7

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 [Ab] and [Bb].

2. C Mixolydian \downarrow 6 mode is equivalent to C Ionian mode with a lowered (b)6 and lowered (b)7.

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

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

\flat III⁷

12 C^{∅7} C Aeolian \downarrow 5 scale; mode vi^o

vi^{o7}

\downarrow 3

\downarrow 5

\downarrow 6

\downarrow 7

e. C Ionian mode and C Aeolian \downarrow 5 mode are parallel scales.

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

1.2 C Aeolian \downarrow 5 contains the notes [E \flat],[G \flat],[A \flat] and [B \flat].

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

lowered (\flat)3, lowered (\flat)5,

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

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

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

\flat III⁷

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

vii^{o7}

\downarrow 2

\downarrow 3

\downarrow 4

\downarrow 5

\downarrow 6

\downarrow 7

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

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

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

2. C Locrian \downarrow 4 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 lowered (\flat)7.

3. The scale formula for Locrian \downarrow 4 mode is [\downarrow 2, \downarrow 3, \downarrow 4, \downarrow 5, \downarrow 6, \downarrow 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 C#⁷ 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

D root

30 Dm(maj7) D Ionian ↓3 scale; mode i ("melodic minor")

i⁷ ↓3

31 D-7 D Dorian ↓2 scale; mode ii Dmaj7(#5) D Lydian ↑5 scale; mode bIII

ii⁷ ↓2 ↓3 ↓7 bIII⁷ ↑4 ↑5

33 D7 D Lydian ↓7 scale; mode IV D7 D Mixolydian ↓6 scale; mode V

IV⁷ ↑4 ↓7 V⁷ ↓6 ↓7

35 Dø7 D Aeolian ↓5 scale; mode vi° Dø7 D Locrian ↓4 scale; mode vii°

vi^{ø7} ↓3 ↓5 ↓6 ↓7 vii^{ø7} ↓2 ↓3 ↓4 ↓5 ↓6 ↓7

E♭root

37 Ebm(maj7) Eb Ionian ↓3 scale; mode i ("melodic minor")

i⁷ ↓3

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

ii⁷ ↓2 ↓3 ↓7 bIII⁷ ↑4 ↑5

40 Eb7 Eb Lydian ↓7 scale; mode IV Eb7 Eb Mixolydian ↓6 scale; mode V

IV⁷ ↑4 ↓7 V⁷ ↓6 ↓7

42 D#ø7 D# Aeolian ↓5 scale; mode vi° D#ø7 D# Locrian ↓4 scale; mode vii°

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^o E^{ø7} E Locrian ↓4 scale; mode vii^o

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^o F^{ø7} F Locrian ↓4 scale; mode vii^o

vi^{ø7} ↓3 ↓5 ↓6 ↓7 vii^{ø7} ↓2 ↓3 ↓4 ↓5 ↓6 ↓7

F#root58 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 root65 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")

73 G#-7 G# Dorian ↓2 scale; mode ii Abmaj7(#5) Ab Lydian ↑5 scale; mode bIII

75 Ab7 Ab Lydian ↓7 scale; mode IV Ab7 Ab Mixolydian ↓6 scale; mode V

77 G#ø7 G# Aeolian ↓5 scale; mode vi° G#ø7 G# Locrian ↓4 scale; mode vii°

A root

79 Am(maj7) A Ionian ↓3 scale; mode i ("melodic minor")

80 A-7 A Dorian ↓2 scale; mode ii Amaj7(#5) A Lydian ↑5 scale; mode bIII

82 A7 A Lydian ↓7 scale; mode IV A7 A Mixolydian ↓6 scale; mode V

84 Aø7 A Aeolian ↓5 scale; mode vi° Aø7 A Locrian ↓4 scale; mode vii°

B \flat root

86 B \flat m(maj7) B \flat **Ionian \downarrow 3 scale; mode i ("melodic minor")**

i^7 \downarrow 3

87 B \flat -7 B \flat **Dorian \downarrow 2 scale; mode ii** B \flat maj7(#5) B \flat **Lydian \uparrow 5 scale; mode \flat III**

ii^7 \downarrow 2 \downarrow 3 \downarrow 7 \flat III 7 \uparrow 4 \uparrow 5

89 B \flat 7 B \flat **Lydian \downarrow 7 scale; mode IV** B \flat 7 B \flat **Mixolydian \downarrow 6 scale; mode V**

IV 7 \uparrow 4 \downarrow 7 V 7 \downarrow 6 \downarrow 7

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 $^\circ$**

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

B root

93 Bm(maj7) B **Ionian \downarrow 3 scale; mode i ("melodic minor")**

i^7 \downarrow 3

94 B-7 B **Dorian \downarrow 2 scale; mode ii** Bmaj7(#5) B **Lydian \uparrow 5 scale; mode \flat III**

ii^7 \downarrow 2 \downarrow 3 \downarrow 7 \flat III 7 \uparrow 4 \uparrow 5

96 B7 B **Lydian \downarrow 7 scale; mode IV** B7 B **Mixolydian \downarrow 6 scale; mode V**

IV 7 \uparrow 4 \downarrow 7 V 7 \downarrow 6 \downarrow 7

98 B \emptyset 7 B **Aeolian \downarrow 5 scale; mode vi $^\circ$** B \emptyset 7 B **Locrian \downarrow 4 scale; mode vii $^\circ$**

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

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 C7(b9) C Phrygian ↑3 scale; mode V

V⁷ ↓2 ↓6 ↓7

The **Phrygian ↑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 C7(b9) F-7

V⁷ i⁷

8 C7 C Lydian ↓7 scale; mode IV

IV⁷ ↑4 ↓7

The **Lydian ↓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 C7 C7

11 C7 C Mixolydian ↓6 scale; mode V

V⁷ ↓6 ↓7

The **Mixolydian ↓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 C7 F-7

V⁷ i⁷

14 $C\emptyset^7$ C **Locrian $\downarrow 4$ scale; mode vii°**

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

15 C^7 C **Locrian $\downarrow 4$ scale; mode vii°**

V^7 R (b9) (#9) 3 (b5) (#5) b7
(#11) (b13)

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

Cm⁷ D^{ø7} Eb^{Δ7} Fm⁷ Gm⁷ Ab^{Δ7} Bb⁷ Cm⁷

Key: Cm i⁷ ii^{ø7} bIII⁷ iv⁷ v⁷ bVI⁷ bVII⁷ i⁷

Harmonic minor 7th chords

Cm(maj7) D^{ø7} Ebmaj7(#5) Fm⁷ G7(b9) Ab^{Δ7} B^{ø7} Cm(maj7)

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

Melodic minor 7th chords

Cm(maj7) D-⁷ Ebmaj7(#5) F⁷ G⁷ A^{ø7} B^{ø7} Cm(maj7)

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

G^7 C^{-7} $G^7(b9)$ C^{-7}
 6
 V⁷ i⁷ V⁹₇ i⁷
 Dominant7th minor7th Dominant7th (b9) minor7th

Corresponding **modes and chord tones**

8 G^7 G Mixolydian ↓6 scale; mode V C^{-7} C natural minor scale; mode i
 melodic minor
 V⁷ i⁷
 Dominant7th minor7th
 9 $G^7(b9)$ G Phrygian ↑3 scale; mode V C^{-7} C natural minor scale; mode i
 harmonic minor
 V⁹₇ i⁷
 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

iv^7
 V^7
 I^7

minor7th
Dominant7th
minor7th

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

11

iv^7
 V^7
 I^7

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^7

half Dominant7th minor7th
diminished7th

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

13

$D^{\flat 7}$ D Locrian $\uparrow 6$ scale; mode ii G^7 G Phrygian $\uparrow 3$ scale; mode V C^{-7} C natural minor scale; mode i

$ii^{\flat 7}$ *harmonic minor* V^7 *harmonic minor* i^7

half Dominant7th minor7th
diminished7th

14

$D^{\flat 7}$ D Locrian $\uparrow 6$ scale; mode ii G^7 G Mixolydian $\downarrow 6$ scale; mode V C^{-7} C natural minor scale; mode i

$ii^{\flat 7}$ *harmonic minor* V^7 *melodic minor* i^7

half Dominant7th minor7th
diminished7th

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-bVII-bIII-bVI-ii-V-i] progression

Key: Cm iv⁷ bVII⁷ bIII⁷ bVI⁷ 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 bVII⁷ natural minor Dominant7th

bIII⁷ natural minor Major7th bVI⁷ natural minor Major7th

ii^{ø7} harmonic minor half diminished7th V⁷ harmonic minor Dominant7th i⁷ natural minor minor7th

Falling 5ths chord progressions [iv-bVII-bIII-bVI-ii-V-i] derived from minor scales are particularly problematic for analysis.

The first four chords in the progression [iv-bVII-bIII-bVI] 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-bVII-bIII-bVI]
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

23

i^7 $\flat VII^7$ $\flat VI^7$ V^7
minor7th **Dominant7th** **Dominant7th** **Dominant7th**

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

25

26

i^7 $\flat VII^7$ $\flat VI^7$ V^7
minor7th **Dominant7th** **Dominant7th** **Dominant7th**
natural minor *harmonic minor*
C Locrian *D♭ Major (Ionian)*

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♭ Major (Ionian)**.

C Locrian and **D♭ 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} $G^{7(b9)}$ C^{-7}

V^7 i^7 V_7^9 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

$D^{\circ 7}$ 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

$D\flat$ *major*

C# minor

1. [V-i] progression

37

V⁷ i⁷ V⁹ i⁷

2. [iv-V-i] progression

39

iv⁷ V⁷ I⁷

3. [ii-V-i] progression

ii^{ø7} V⁷ i⁷

4. [iv-^bVII-^bIII-^bVI-ii-V-i] progression

41

iv⁷ ^bVII⁷ ^bIII⁷ ^bVI⁷ ii^{ø7} V⁷ i⁷

5. [i-^bVII-^bVI-V] progression

45

i⁷ ^bVII⁷ ^bVI⁷ D major V⁷

D minor

1. [V-i] progression

47

V⁷ i⁷ V⁹ i⁷

2. [iv-V-i] progression

49

iv⁷ V⁷ I⁷

3. [ii-V-i] progression

E^{ø7} A⁷ D-⁷

ii^{ø7} V⁷ i⁷

4. [iv-bVII-bIII-bVI-ii-V-i] progression

51

iv⁷ bVII⁷ bIII⁷ bVI⁷ ii^{ø7} V⁷ i⁷

5. [i-bVII-bVI-V] progression

55

i⁷ bVII⁷ bVI⁷ V⁷

E^b major

E^b minor

1. [V-i] progression

B^b7 E^b-7 B^b7(b⁹) E^b-7

57

V⁷ i⁷ V⁹ i⁷

2. [iv-V-i] progression

A^b-7 B^b7 E^b-7 F^ø7 B^b7 E^b-7

59

iv⁷ V⁷ I⁷ ii^{ø7} V⁷ i⁷

3. [ii-V-i] progression

4. [iv-^bVII-^bIII-^bVI-ii-V-i] progression

A^bm⁷ D^b7 G^bΔ⁷ C^bΔ⁷ F^ø7 B^b7 E^b-7

61

iv⁷ ^bVII⁷ ^bIII⁷ ^bVI⁷ ii^{ø7} V⁷ i⁷

5. [i-^bVII-^bVI-V] progression

E^b-7 D^b7 C^b7 B^b7

65

i⁷ ^bVII⁷ ^bVI⁷ E *major* V⁷

E minor

1. [V-i] progression

67

B^7 E^{-7} $B^7(b9)$ E^{-7}

V^7 i^7 V_7^9 i^7

2. [iv-V-i] progression

69

A^{-7} B^7 E^{-7} $F^{\#o7}$ B^7 E^{-7}

iv^7 V^7 I^7 ii^{o7} V^7 i^7

3. [ii-V-i] progression

4. [iv-bVII-bIII-bVI-ii-V-i] progression

71

A_m^7 D^7 $G^{\Delta7}$ $C^{\Delta7}$ $F^{\#o7}$ B^7 E^{-7}

iv^7 $bVII^7$ $bIII^7$ bVI^7 ii^{o7} V^7 i^7

5. [i-bVII-bVI-V] progression

75

E^{-7} D^7 C^7 B^7

i^7 $bVII^7$ bVI^7 V^7

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 G^b major V⁷

F# minor

1. [V-i] progression

87

C#7 F#-7 C#7(b9) F#-7

V⁷ i⁷ V^o₇ 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 D⁷(b⁹) G⁻⁷

V⁷ i⁷ V⁹ i⁷

2. [iv-V-i] progression

99

C⁻⁷ D⁷ G⁻⁷

iv⁷ V⁷ I⁷

3. [ii-V-i] progression

A^{ø7} D⁷ G⁻⁷

ii^{ø7} V⁷ i⁷

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

A^b 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

E^7 A^{-7} $E^{7(b9)}$ A^{-7}

V^7 i^7 V_7^9 i^7

2. [iv-V-i] progression

119

D^{-7} E^7 A^{-7} $B^{\emptyset 7}$ E^7 A^{-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

121

Dm^7 G^7 $C^{\Delta 7}$ $F^{\Delta 7}$ $B^{\emptyset 7}$ E^7 A^{-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

125

A^{-7} G^7 F^7 E^7

i^7 $\flat VII^7$ $\flat VI^7$ V^7

$B\flat$ major

B \flat minor

1. [V-i] progression

127

F⁷ B \flat -⁷ F⁷(b⁹) B \flat -⁷

V⁷ i⁷ V^o 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 V⁷

C \flat major

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 C#ø7 F#7 B-7

iv⁷ V⁷ I⁷ ii^{ø7} V⁷ i⁷

3. [ii-V-i] progression

4. [iv-bVII-bIII-bVI-ii-V-i] progression

141 Em7 A7 DΔ7 GΔ7 C#ø7 F#7 B-7

iv⁷ bVII⁷ bIII⁷ bVI⁷ ii^{ø7} V⁷ i⁷

5. [i-bVII-bVI-V] progression

145 B-7 A7 G7 F#7

i⁷ bVII⁷ bVI⁷ V⁷

B# major

Chapter 15- Intervals

David M. Shere

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]**.

minor second [m2] *enharmonic minor second [m2] minor second [m2] minor second [m2]

ascending *ascending* *descending* *harmonic*

*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**.)

5 Major second [M2] Major second [M2] Major second [M2]

ascending *descending* *harmonic*

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 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

*minor 9th [m9]-
flatted 9th (b9)
minor 9th [m9]-
flatted 9th (b9)
minor 9th [m9]-
flatted 9th (b9)

ascending
descending
harmonic

*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

Major 9th [M9]
Major 9th [M9]
Major 9th [M9]

ascending
descending
harmonic

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

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

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

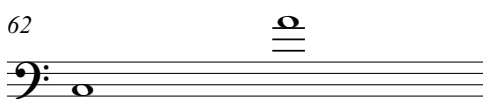

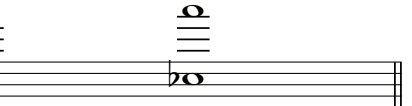
*A **flatted 13th (b13)** is an **extended chord tone (extension)** found in **minor chords**. It is equivalent to the combined distance of a **perfect octave [P8]** and a **minor 6th [m6]**, which can be represented as **[P8+m6]**.

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].

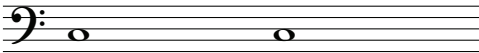
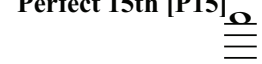

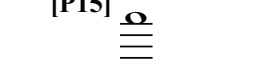
148 **III. REDUNDANT COMPOUND INTERVALS (Larger than one octave)**

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**.

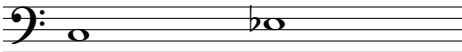
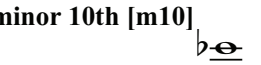

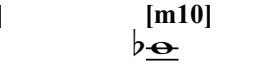
Perfect unisons and 15ths [P1, P15] are harmonically equivalent to **Perfect octaves [P8]**.

65

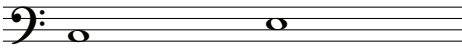


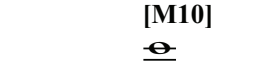
Perfect unison [P1]	Perfect 15th [P15]	[P1]	[P15]
			
<i>melodic</i>	<i>melodic</i>	<i>harmonic</i>	

Minor and Major 10ths [m10, M10] are harmonically equivalent to **minor and Major 3rds [m3, M3]**.

68

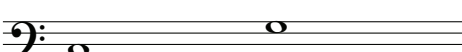
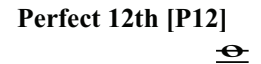

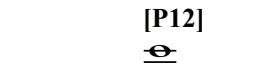
minor 3rd [m3]	minor 10th [m10]	[m3]	[m10]
			
<i>melodic</i>	<i>melodic</i>	<i>harmonic</i>	

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Major 3rd [M3]	Major 10th [M10]	[M3]	[M10]
			
<i>melodic</i>	<i>melodic</i>	<i>harmonic</i>	

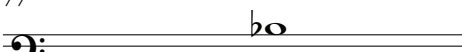
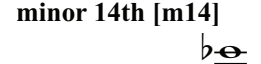

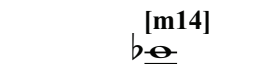
Perfect 12ths [P12] are harmonically equivalent to **Perfect 5ths [P5]**.

74

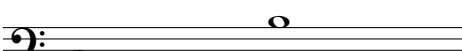


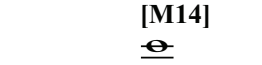
Perfect 5th [P5]	Perfect 12th [P12]	[P5]	[P12]
			
<i>melodic</i>	<i>melodic</i>	<i>harmonic</i>	

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]
			
<i>melodic</i>	<i>melodic</i>	<i>harmonic</i>	

80

Major 7th [M7]	Major 14th [M14]	[M7]	[M14]
			
<i>melodic</i>	<i>melodic</i>	<i>harmonic</i>	

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

96 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

Descending

110 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

123 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 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 bass clef with a key signature of two flats (Bb and Eb). The notes are: Bb2, Bb2, Bb2, Bb3, Bb3, Bb3, Bb4, Bb4, Bb4, Bb5, Bb5, Bb5, Bb6, Bb6, Bb6, Bb7, Bb7, Bb7.

M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

150

A musical staff in bass clef with a key signature of two flats. The notes are: Bb7, Bb7, Bb8, Bb8, Bb9, Bb9, Bb9, Bb10, Bb10, Bb10, Bb11, Bb11, Bb11, Bb12, Bb12, Bb12, Bb13, Bb13, Bb13, Bb14, Bb14, Bb14.

Descending

164 **m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7**

A musical staff in bass clef with a key signature of two flats. The notes are: Bb2, Bb2, Bb2, Bb3, Bb3, Bb3, Bb4, Bb4, Bb4, Bb5, Bb5, Bb5, Bb6, Bb6, Bb6, Bb7, Bb7, Bb7.

M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

177

A musical staff in bass clef with a key signature of two flats. The notes are: Bb7, Bb7, Bb8, Bb8, Bb9, Bb9, Bb9, Bb10, Bb10, Bb10, Bb11, Bb11, Bb11, Bb12, Bb12, Bb12, Bb13, Bb13, Bb13, Bb14, Bb14, Bb14.

D root

Ascending

191 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

204

Descending

218 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

231

E \flat root

Ascending

245 m2 M2 A2 m3 M3 P4 A4 d5(\flat 5) P5 A5(\sharp 5) m6 M6 d7 m7

M7 P8 m9(\flat 9) M9 A9(\sharp 9) m10 M10 P11 A11(\sharp 11) P12 m13(\flat 13) M13 m14 M14

258

Descending

m2 M2 A2 m3 M3 P4 A4 d5(\flat 5)P5 A5(\sharp 5) m6 M6 d7 m7

272

M7 P8 m9(\flat 9) M9 A9(\sharp 9) m10 M10 P11 A11(\sharp 11) P12 m13(\flat 13) M13 m14 M14

285

E root

Ascending

299 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 b7 m7

M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

312

Descending

m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

326

M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

339

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

Musical staff for ascending scale from measure 407 to 419. The staff shows notes with accidentals and some notes marked with an 'x'.

420 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

Musical staff for ascending scale from measure 420 to 432. The staff shows notes with accidentals and some notes marked with an 'x'.

Descending

434 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

Musical staff for descending scale from measure 434 to 446. The staff shows notes with accidentals and some notes marked with an 'x'.

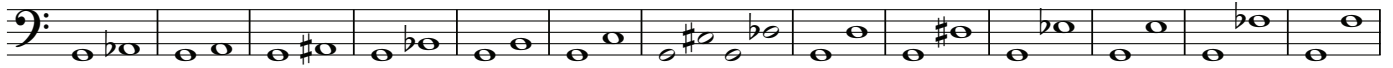
447 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

Musical staff for descending scale from measure 447 to 459. The staff shows notes with accidentals and some notes marked with an 'x'.

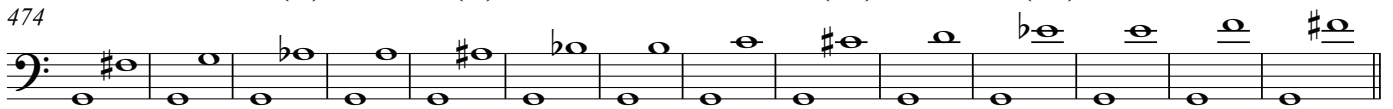
G root

Ascending

461 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

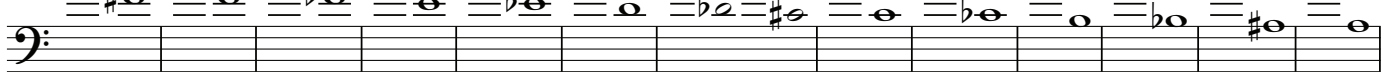


M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

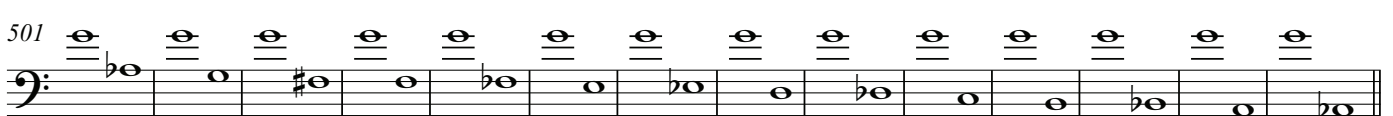


Descending

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



A^b root

Ascending

515 **m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7**

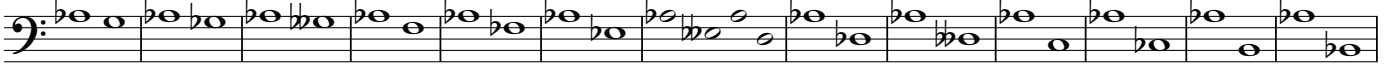


M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14
528



Descending

542 **m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7**



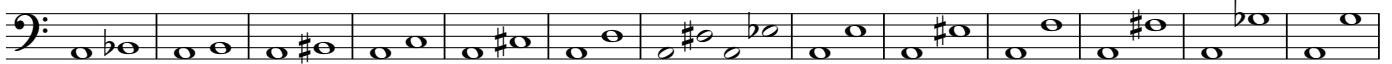
M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14
555



A root

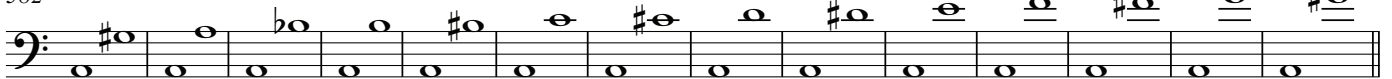
Ascending

569 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7



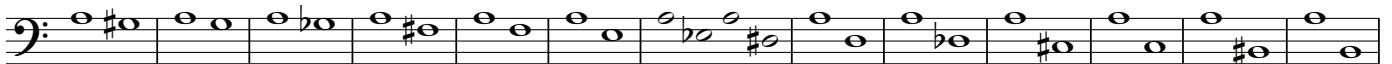
M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14

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

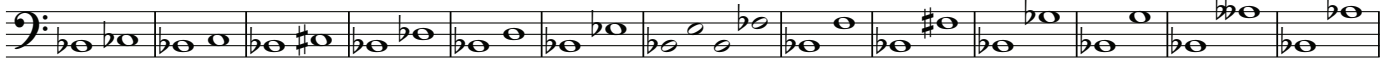
609



B \flat root

Ascending

623 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7

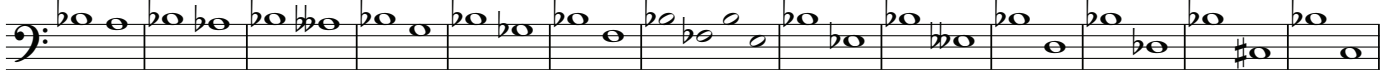


636 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14



Descending

650 m2 M2 A2 m3 M3 P4 A4 d5(b5) P5 A5(#5) m6 M6 d7 m7



663 M7 P8 m9(b9) M9 A9(#9) m10 M10 P11 A11(#11) P12 m13(b13) M13 m14 M14



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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