

SYSTEMS FOR JAZZ GUITAR

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January 5, 2024

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1 PRELIMINARY REMINDERS

1.1 Time and Key Signatures

1.1.1 Keys

Diagram showing 12 musical staves, each representing a key signature. The keys are: Cb or Abm, Gb or Ebm, Db or Bbm, Ab or Fm, Eb or Cm, Bb or Gm, F or Dm, C or Am, G or Em, D or Bm, A or F#m, E or C#m, B or G#m, F# or D#m, and C# or A#m.

1.1.2 Tempo ranges

Jazz tempo	Classical tempo	BPM
Very fast	...	> 290
Up tempo, fast	...	230 - 290
Medium-up tempo, medium fast	<i>prestissimo</i>	180 - 230
Medium tempo, moderate	<i>allegro</i>	120 - 180
Walking tempo	<i>moderato</i>	100 - 120
Slow swing	<i>andante</i>	80 - 100
Medium ballad	<i>adagio</i>	60 - 80
Slow ballad	<i>largo</i>	40 - 60

1.2 Interval Cycles

./Snippets/cycles1.pdf

./Snippets/cycles2.pdf

2 UNIQUE MELODIC ELEMENTS

2.1 Triads

The four triads formed by combining major and minor thirds are the following. The most useful way to play them are:

- in the five CAGED positions;
- in the six two-and-one-notes-per-string positions.

The image shows four musical staves, each representing a different triad. The first staff is labeled 'Major triad C' and shows notes C4, E4, G4. The second staff is labeled 'Minor triad Cm' and shows notes C4, E♭4, G4. The third staff is labeled 'Diminished triad C°' and shows notes C4, E♭4, G♭4. The fourth staff is labeled 'Augmented triad C+' and shows notes C4, E4, G♯4.



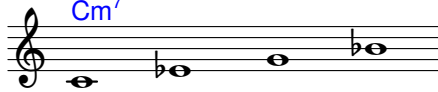



The two most useful harmonizations, easy to play on the guitar, are the following. The compact forms can be played on adjacent string groups. The drop-2 forms have one or two string skips, depending on the inversion and on the quality of the chord.

The image shows two musical staves. The first staff is labeled 'Compact form' and shows three chords: C (C4, E4, G4), C/E (C4, E4, G4), and C/G (C4, E4, G4). The second staff is labeled 'Drop 2' and shows three chords: C (C4, E4, G4), C/E (C4, E4, G4), and C/G (C4, E4, G4).

2.2 Sevenths Chords

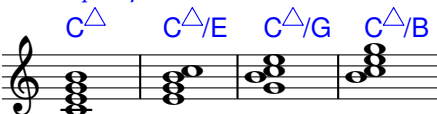



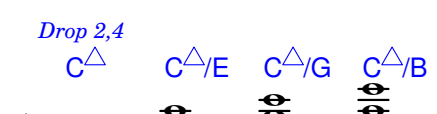
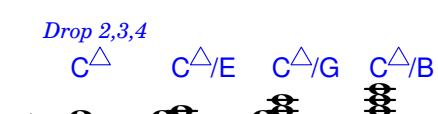
There are seven four-note arpeggios obtained by combining major and minor thirds, the eighth one being only the augmented triad with the root repeated one octave higher. The most useful way to play them are:

- in the five CAGED positions;
- in the four two-notes-per-string positions (go well with slurring);
- in the eight three-and-one-notes-per-string positions (go well with economy picking).

<p><i>Major seventh</i> C[△]</p> 	<p><i>Minor major seventh</i> Cm[△]</p> 
<p><i>Dominant seventh</i> C⁷</p> 	<p><i>Minor seventh</i> Cm⁷</p> 
<p><i>Half diminished</i> C^ø</p> 	<p><i>Diminished seventh</i> C^{o7}</p> 
<p><i>Major seventh augmented</i> C^{△#5}</p> 	<p><i>Augmented triad</i> C⁺</p> 

These arpeggios can be arranged in different chord forms.

- The compact form can be played on the guitar mostly in its fundamental inversion. The other inversions are playable only in the higher register, using open strings, or with a non-standard tuning such as Frank GAMBALE's.
- Drop-2 forms can be played on adjacent string groups (there are thus three unisons of each chord on the guitar neck).
- Drop-3 forms can be played with a detached bass (thus two unisons per chord).
- Drop-2,3 forms can be played with a string skip in the middle (thus two unisons per chord).
- Drop-2,4 forms can be played with a detached high note (thus two unisons per chord).
- Drop-2,3,4 forms can be played with the bass on the low E string and the three other notes on the three high strings (thus only one unison per chord).

<p><i>Compact form</i> C[△] C^{△/E} C^{△/G} C^{△/B}</p> 	<p><i>Drop 2</i> C[△] C^{△/E} C^{△/G} C^{△/B}</p> 
<p><i>Drop 3</i> C[△] C^{△/E} C^{△/G} C^{△/B}</p> 	<p><i>Drop 2,3</i> C[△] C^{△/E} C^{△/G} C^{△/B}</p> 
<p><i>Drop 2,4</i> C[△] C^{△/E} C^{△/G} C^{△/B}</p> 	<p><i>Drop 2,3,4</i> C[△] C^{△/E} C^{△/G} C^{△/B}</p> 

In addition, two categories of incomplete chords can be very practical.

1. *Shell voicings*, are efficient for staccato punctuation or quarter note comping. They sound a bit lacking when held for a long time.
2. *Octave chords* have a repeated note:
 - Regular octave chords can be played on the same string groups as Drop-2;
 - Double octave chords can be played on the low E, D, G and high E strings.

Shell chord, compact

C[△] C[△]/E C[△]/G C[△]/B

Octave chord

C[△] C[△]/E C[△]/G C[△]/B

Shell chord, detached bass

C[△] C[△]/E C[△]/G C[△]/B

Double octave chord

C[△] C[△]/E C[△]/G C[△]/B

2.3 Pentatonic Scales

The most common pentatonic scales for improvising are the following. We also give the name of the relative minor for the first three.

- The most useful positions are two notes per string.
- They can also be played in the fifteen positions with three and two notes per strings.

Major pentatonic (C) ⇔ Minor pentatonic (A)

Dominant pentatonic (C) ⇔ Dorian pentatonic (G)

Unitonic pentatonic (C)

Diminished pentatonic (C)

Indian pentatonic (C)

Vietnamese pentatonic (C)

Kumoi pentatonic (C) ⇔ Locrian pentatonic (A)

Harmonic major pentatonic (C)

Javanese pentatonic

7#9 pentatonic (C)

Chinese pentatonic (C)

Balinese pentatonic (C)

2.4 Blues Scales

The blues scales can be played as a pentatonic plus the blue note. It can also be played three notes per strings (good for economy picking).

Major blues scale (C) ⇔ Minor blues scale (A)

2.5 Heptatonic Scales

There are seven positions to play these scales, three notes per strings. They are the most useful both for economy picking and slurring.

Diatonic scale (C)

Minor melodic scale (C)

Harmonic minor scale (C)

Harmonic major scale (C)

Hungarian dominant scale (C)
Hungarian minor scale (C)
Neapolitan scale (C)
Harmonic neapolitan scale (C)
Enigmatic scale (C)

2.6 Symmetric Scales

Unitonic scale (C)
Augmented scale (C)
Diminished scale (C)
Chromatic scale (C)

3 GENERALIZATION OF THE CONCEPT OF MODE

Here, we go through all the combinations of a unique melodic element played against an arbitrary bass note. Not all are interesting, but we still list them for completeness.

3.1 Triads

3.1.1 Major

Substitution						Play over
C/C	1		3	5		C ^Δ , C ⁷
B/C		3m/#9		b5/#11	7	...
B ^b /C		9	4/11		b7	Cm ⁷ , C ^{7sus}
A/C		b9	3		13	C ^{7alt}
A ^b /C	1	3m/#9		#5/b13		C ^{7alt}
G/C		9		5	7	C ^Δ , Cm ^Δ
F [#] /C		b9		b5/#11	b7	C ^{7alt}
F/C	1		4/11		13	C ^{sus} , Cm ^Δ , Cm ⁷
E/C			3	#5/b13	7	C ^Δ #5
E ^b /C		3m/#9		5	b7	Cm ⁷ , C ^{7alt}
D/C		9		b5/#11	13	C ^Δ , C ⁷
C [#] /C			4/11	#5/b13		...

3.1.2 Minor

Substitution						Play over
Cm/C	1	3m/#9		5		Cm Δ , Cm 7
Bm/C		9		b5/#11	7	C Δ
Bbm/C		b9	4/11		b7	C 7b9sus
Am/C	1		3		13	C Δ , C 7
Abm/C		3m/#9		#5/b13	7	...
Gm/C		9		5	b7	C Δ , Cm Δ , C 7
F#m/C		b9		b5/#11	13	C 7alt
Fm/C	1		4/11	#5/b13		...
Em/C			3	5	7	C Δ
Ebm/C		3m/#9		b5/#11	b7	C $^{\emptyset}$, C 7alt
Dm/C		9	4/11		13	C 7sus , Cm 7
C#m/C		b9	3	#5/b13		C 7alt

3.1.3 Diminished

Substitution						Play over
C $^{\circ}$ /C	1	3m/#9		b5/#11		C $^{\circ 7}$, C $^{\emptyset}$, C 7alt
B $^{\circ}$ /C		9	4/11		7	...
Bb $^{\circ}$ /C		b9	3		b7	C 7alt
A $^{\circ}$ /C	1	3m/#9			13	Cm Δ , Cm 7
Ab $^{\circ}$ /C		9		#5/b13	7	C $\Delta^{\#5}$
G $^{\circ}$ /C		b9		5	b7	C 7alt
F# $^{\circ}$ /C	1			b5/#11	13	C Δ , C 7 , C $^{\emptyset}$
F $^{\circ}$ /C			4/11	#5/b13	7	
E $^{\circ}$ /C			3	5	b7	C 7
Eb $^{\circ}$ /C		3m/#9		b5/#11	13	C $^{\emptyset}$, C 7alt
D $^{\circ}$ /C		9	4/11	#5/b13		...
C# $^{\circ}$ /C		b9	3	5		C 7alt

3.1.4 Augmented

Substitution						Play over
C+/C, E+/C, Ab+/C	1		3	#5/b13		C $\Delta^{\#5}$, C 7alt
B+/C, Eb+/C, G+/C		3m/#9		5	7	Cm Δ
Bb+/C, D+/C, F#+/C		9		b5/#11	b7	C 7
A+/C, C#+/C, F+/C		b9	4/11		13	...

3.2 Seventh Arpeggios

3.2.1 Major seventh

Substitution						Play over
C Δ /C	1		3	5	7	C Δ
B Δ /C		3m/#9		b5/#11	b7	...
Bb Δ /C		9	4/11		13 b7	Cm 7 , C 7sus
A Δ /C		b9	3	#5/b13	13	C 7alt
Ab Δ /C	1	3m/#9		5 #5/b13		C 7alt
G Δ /C		9		b5/#11	5	C Δ , Cm Δ
F# Δ /C		b9	4/11	b5/#11	b7	C $^{\emptyset}$
F Δ /C	1		3 4/11		13	C sus
E Δ /C		3m/#9	3	#5/b13	7	C $\Delta^{\#5}$
Eb Δ /C		9 3m/#9		5	b7	Cm 7
D Δ /C		b9	9	b5/#11	13	...
C# Δ /C	1	b9	4/11	#5/b13		...

3.2.2 Minor major seventh

Substitution								Play over
Cm ^Δ /C	1		3m/#9		5		7	Cm ^Δ
Bm ^Δ /C		9		b5/#11		b7	7	...
Bbm ^Δ /C		b9		4/11		13	b7	C ^{7b9sus}
Am ^Δ /C	1		3		#5/b13	13		C ^Δ #5
Abm ^Δ /C			3m/#9		5	#5/b13	7	...
Gm ^Δ /C		9		b5/#11	5		b7	C ⁷
F#m ^Δ /C		b9		4/11	b5/#11		13	C ^{o7}
Fm ^Δ /C	1		3	4/11		#5/b13		...
Em ^Δ /C			3m/#9	3		5	7	C ^Δ
Ebm ^Δ /C		9	3m/#9		b5/#11		b7	C [∅]
Dm ^Δ /C		b9	9		4/11		13	...
C#m ^Δ /C	1	b9		3		#5/b13		C ^{7alt}

3.2.3 Dominant seventh

Substitution								Play over
C ⁷ /C	1		3		5		b7	C ⁷
B ⁷ /C			3m/#9		b5/#11	13	7	...
Bb ⁷ /C		9		4/11		#5/b13	b7	...
A ⁷ /C		b9		3		5	13	C ^{7alt}
Ab ⁷ /C	1		3m/#9		b5/#11	#5/b13		C ^{7alt}
G ⁷ /C		9		4/11	5		7	...
F# ⁷ /C		b9		3	b5/#11		b7	C ^{7alt}
F ⁷ /C	1		3m/#9	4/11			13	Cm ⁷ , Cm ^Δ
E ⁷ /C		9	3			#5/b13	7	C ^Δ #5
Eb ⁷ /C		b9	3m/#9		5		b7	C ^{7alt}
D ⁷ /C	1	9		b5/#11			13	C ^Δ , C ⁷
C# ⁷ /C		b9		4/11		#5/b13	7	...

3.2.4 Minor seventh

Substitution								Play over
Cm ⁷ /C	1		3m/#9		5		b7	Cm ⁷
Bm ⁷ /C		9		b5/#11		13	7	C ^Δ
Bbm ⁷ /C		b9		4/11		#5/b13	b7	...
Am ⁷ /C	1		3		5		13	C ^Δ , C ⁷
Abm ⁷ /C			3m/#9		b5/#11	#5/b13	7	...
Gm ⁷ /C		9		4/11	5		b7	Cm ⁷
F#m ⁷ /C		b9		3	b5/#11		13	C ^{7alt}
Fm ⁷ /C	1		3m/#9	4/11		#5/b13		...
Em ⁷ /C		9	3		5		7	C ^Δ
Ebm ⁷ /C		b9	3m/#9		b5/#11		b7	C ^{7alt}
Dm ⁷ /C	1	9		4/11			13	C ^{7sus} , Cm ⁷
C#m ⁷ /C		b9		3		#5/b13	7	...

3.2.5 Half-diminished

Substitution								Play over
C ^ø /C	1		3m/#9		b5/#11		b7	C ^ø
B ^ø /C		9		4/11			13 7	...
Bb ^ø /C		b9		3		#5/b13	b7	C ^{7alt}
A ^ø /C	1		3m/#9			5	13	Cm ^Δ , Cm ⁷
Ab ^ø /C		9			b5/#11	#5/b13	7	C ^{Δ#5}
G ^ø /C		b9		4/11		5	b7	C ^{7b9sus}
F# ^ø /C	1		3		b5/#11		13	C ^Δ , C ⁷
F ^ø /C			3m/#9	4/11		#5/b13	7	...
E ^ø /C		9	3			5	b7	C ⁷
Eb ^ø /C		b9	3m/#9		b5/#11		13	C ^{7alt}
D ^ø /C	1	9		4/11		#5/b13		...
C# ^ø /C		b9		3		5	7	...

3.2.6 Diminished

Substitution								Play over
C ^{o7} /C, A ^{o7} /C, F# ^{o7} /C, Eb ^{o7} /C	1		3m/#9		b5/#11		13	C ^{o7}
B ^{o7} /C, Ab ^{o7} /C, F ^{o7} /C, D ^{o7} /C		9		4/11		#5/b13	7	...
Bb ^{o7} /C, G ^{o7} /C, E ^{o7} /C, C# ^{o7} /C		b9		3		5	b7	C ^{7alt}

3.2.7 Major seventh augmented

Substitution								Play over
C ^{Δ#5} /C	1		3			#5/b13	7	C ^{Δ#5}
B ^{Δ#5} /C			3m/#9			5	b7 7	...
Bb ^{Δ#5} /C		9			b5/#11		13 b7	C ⁷
A ^{Δ#5} /C		b9		4/11		#5/b13	13	...
Ab ^{Δ#5} /C	1		3			#5/b13		C ^{7alt}
G ^{Δ#5} /C			3m/#9		b5/#11	5	7	...
F# ^{Δ#5} /C		9		4/11	b5/#11		b7	C ^ø
F ^{Δ#5} /C		b9	3	4/11			13	...
E ^{Δ#5} /C	1		3m/#9	3		#5/b13		C ^{7alt}
Eb ^{Δ#5} /C		9	3m/#9			5	7	Cm ^Δ
D ^{Δ#5} /C		b9	9		b5/#11		b7	...
C# ^{Δ#5} /C	1	b9		4/11			13	C ^{7b9sus}

3.3 Pentatonics (◇)

3.3.1 Major ◇

Mode								Play over	a.k.a.
C ◇/C	1	9	3		5	13		C ^Δ , C ⁷	Natural ◇
B ◇/C		b9	3m/#9		b5/#11	#5/b13	7	...	...
Bb ◇/C	1	9		4/11		5	b7	Cm ⁷ , C ^{7sus}	Egyptian ◇
A ◇/C		b9	3		b5/#11		13 7	...	...
Ab ◇/C	1		3m/#9	4/11		#5/b13	b7	...	...
G ◇/C		9	3			5	13 7	C ^Δ	...
F# ◇/C		b9	3m/#9		b5/#11	#5/b13	b7	C ^{7alt}	...
F ◇/C	1	9		4/11		5	13	Cm, C ^{7sus}	...
E ◇/C		b9	3		b5/#11	#5/b13	7	...	...
Eb ◇/C	1		3m/#9	4/11		5	b7	Cm ⁷	Minor ◇
D ◇/C		9	3		b5/#11		13 7	C ^Δ	...
C# ◇/C		b9	3m/#9	4/11		#5/b13	b7	...	...

3.3.2 Kumoi ◊

Mode									Play over	a.k.a.
C ◊/C	1	9	3m/♯9		5	13			C, Cm	B.B. King ◊
B ◊/C		b9	9		b5/♯11	♯5/b13	7		...	...
Bb ◊/C	1	b9		4/11	5		b7		C ^{7b9sus}	Kokin joshi ◊
A ◊/C	1			3	b5/♯11	13	7		C ^Δ	Nippon ◊
Ab ◊/C			3m/♯9	4/11		♯5/b13	b7	7	...	...
G ◊/C		9		3	5	13	b7		C ⁷	...
F♯ ◊/C		b9	3m/♯9		b5/♯11	♯5/b13	13		...	...
F ◊/C	1	9		4/11	5	♯5/b13			Cm ⁷	Asian ◊
E ◊/C		b9		3	b5/♯11	5	7		...	...
Eb ◊/C	1		3m/♯9	4/11	b5/♯11		b7		C [∅] , C ^{7alt}	Locrian ◊
D ◊/C		9		3	4/11		13	7	C ^Δ	...
C♯ ◊/C		b9	3m/♯9	3		♯5/b13	b7		C ^{7alt}	...

3.3.3 Dominant ◊

Mode									Play over	a.k.a.
C ◊/C	1	9	3		5		b7		C ⁷	...
B ◊/C		b9	3m/♯9		b5/♯11	13	7		...	...
Bb ◊/C	1	9		4/11		♯5/b13	b7		...	...
A ◊/C		b9		3	5	13	7		...	...
Ab ◊/C	1		3m/♯9		b5/♯11	♯5/b13	b7		C [∅] , C ^{7alt}	...
G ◊/C		9		4/11	5	13	7		...	...
F♯ ◊/C		b9		3	b5/♯11	♯5/b13	b7		C ^{7alt}	...
F ◊/C	1		3m/♯9	4/11	5	13			Cm ⁷ , Cm ^Δ	Dorian ◊
E ◊/C		9		3	b5/♯11	♯5/b13	7		C ^Δ ♯5	...
Eb ◊/C		b9	3m/♯9	4/11	5		b7		...	...
D ◊/C	1	9		3	b5/♯11		13		C ^Δ , C ⁷	...
C♯ ◊/C		b9	3m/♯9	4/11		♯5/b13	7		...	...

3.3.4 Harmonic major ◊

Mode									Play over	a.k.a.
C ◊/C	1	9	3		5	♯5/b13			C ^Δ , C ^{7alt}	...
B ◊/C		b9	3m/♯9		b5/♯11	5	7		...	...
Bb ◊/C	1	9		4/11	b5/♯11		b7		C [∅]	...
A ◊/C		b9		3	4/11		13	7	...	...
Ab ◊/C	1		3m/♯9	3		♯5/b13	b7		C ^{7alt}	...
G ◊/C		9	3m/♯9		5	13	7		Cm ^Δ	...
F♯ ◊/C		b9	9		b5/♯11	♯5/b13	b7		C ^{7alt}	...
F ◊/C	1	b9		4/11	5	13			C ^{7b9sus}	...
E ◊/C	1			3	b5/♯11	♯5/b13	7		C ^Δ ♯5	...
Eb ◊/C			3m/♯9	4/11	5		b7	7	...	...
D ◊/C		9		3	b5/♯11		13	b7	C ⁷	...
C♯ ◊/C		b9	3m/♯9	4/11		♯5/b13	13		...	...

3.3.5 Unitonic ◊

Mode								Play over	a.k.a.
C ◊/C	1	9	3		b5/#11	#5/b13		C ^{7alt} , C ^{Δ#5}	...
B ◊/C		b9	3m/#9	4/11		5	7	...	...
Bb ◊/C	1	9	3		b5/#11		b7	C ⁷	...
A ◊/C		b9	3m/#9	4/11			13	7	...
Ab ◊/C	1	9	3			#5/b13	b7	C ^{7alt}	...
G ◊/C		b9	3m/#9			5	13	7	...
F# ◊/C	1	9			b5/#11	#5/b13	b7	C ^{7alt}	...
F ◊/C		b9		4/11		5	13	7	...
E ◊/C	1		3		b5/#11	#5/b13	b7	C ^{7alt}	...
Eb ◊/C			3m/#9	4/11		5	13	7	...
D ◊/C		9	3		b5/#11	#5/b13	b7	C ^{7alt}	...
C# ◊/C		b9	3m/#9	4/11		5	13	...	...

3.3.6 Javanese ◊

Mode								Play over	a.k.a.
C ◊/C	1	b9	3m/#9			5	13	C ^{7alt} , Cm	...
B ◊/C	1	9			b5/#11	#5/b13	7	C ^{Δ#5}	...
Bb ◊/C		b9		4/11		5	b7	7	...
A ◊/C	1		3		b5/#11		13	b7	C ⁷
Ab ◊/C			3m/#9	4/11		#5/b13	13	7	...
G ◊/C		9	3			5	#5/b13	b7	C ^{7alt}
F# ◊/C		b9	3m/#9		b5/#11	5	13		C ^{7alt}
F ◊/C	1	9		4/11	b5/#11	#5/b13			C [∅]
E ◊/C		b9	3	4/11		5		7	...
Eb ◊/C	1		3m/#9	3	b5/#11		b7		C ⁷ , C ^{7alt}
D ◊/C		9	3m/#9	4/11			13	7	Cm ^Δ
C# ◊/C		b9	9	3		#5/b13	b7		C ^{7alt}

3.3.7 Diminished ◊

Mode								Play over	a.k.a.
C ◊/C	1	9	3m/#9		b5/#11		13	C ^{∅7} , C [∅]	...
B ◊/C		b9	9	4/11		#5/b13	7		...
Bb ◊/C	1	b9	3			5	b7		C ^{7alt}
A ◊/C	1		3m/#9		b5/#11		13	7	C ^{∅7}
Ab ◊/C		9		4/11		#5/b13	b7	7	...
G ◊/C		b9	3			5	13	b7	C ^{7alt}
F# ◊/C	1		3m/#9		b5/#11	#5/b13	13		C ^{∅7}
F ◊/C		9		4/11		5	#5/b13	7	...
E ◊/C		b9	3		b5/#11	5	b7		C ^{7alt}
Eb ◊/C	1		3m/#9	4/11	b5/#11		13		C ^{∅7} , C [∅]
D ◊/C		9	3	4/11		#5/b13	7		...
C# ◊/C		b9	3m/#9	3		5	b7		C ^{7alt}

3.3.8 7#9 ◊

Mode								Play over	a.k.a.
C ◊/C	1		3m/#9	3		5	b7	C ⁷	...
B ◊/C		9	3m/#9		b5/#11		13 7	C [∅]	...
Bb ◊/C		b9	9		4/11		#5/b13 b7	...	...
A ◊/C	1	b9		3		5	13	C ^{7alt}	...
Ab ◊/C	1		3m/#9		b5/#11		#5/b13 7	...	...
G ◊/C		9			4/11	5	b7 7	...	...
F# ◊/C		b9		3	b5/#11		13 b7	C ^{7alt}	...
F ◊/C	1		3m/#9		4/11		#5/b13 13	...	...
E ◊/C		9		3		5	#5/b13 7	C ^Δ	...
Eb ◊/C		b9	3m/#9		b5/#11	5	b7	C ^{7alt}	...
D ◊/C	1	9			4/11	b5/#11	13	C [∅]	...
C\$# ◊/C		b9		3	4/11		#5/b13 7	...	...

3.3.9 Indian ◊

Mode								Play over	a.k.a.
C ◊/C	1			3	4/11	5	b7	C ⁷ , C ^{7sus}	...
B ◊/C			3m/#9	3		b5/#11	13 7	...	...
Bb ◊/C		9	3m/#9		4/11		#5/b13 b7	C [∅]	...
A ◊/C		b9	9		3		5 13	...	...
Ab ◊/C	1	b9	3m/#9			b5/#11	#5/b13	C ^{7alt}	...
G ◊/C	1	9			4/11	5		Cm ^Δ	...
F# ◊/C		b9		3		b5/#13	b7 7	...	...
F ◊/C	1		3m/#9		4/11		13 b7	Cm ^{7♯}	...
E ◊/C		9		3			#5/b13 13 7	C ^Δ #5	...
Eb ◊/C		b9	3m/#9			5	#5/b13 b7	C ^{7alt}	...
D ◊/C	1	9				b5/#11	5 13	C ^Δ , C ⁷	...
C# ◊/C		b9			4/11	b5/#11	#5/b13 7	...	...

3.3.10 Chinese ◊

Mode								Play over	a.k.a.
C ◊/C	1			3		b5/#11	5 7	C ^Δ	...
B ◊/C			3m/#9		4/11	b5/#11	b7 7	...	...
Bb ◊/C		9		3	4/11		13 b7	C ^{7sus}	...
A ◊/C		b9	3m/#9	3			#5/b13 13	C ^{7alt}	...
Ab ◊/C	1	9	3m/#9			5	#5/b13	Cm	Hirajoshi ◊
G ◊/C		b9	9			b5/#11	5 7	...	...
F# ◊/C	1	b9			4/11	b5/#11	b7	C [∅]	Iwato ◊
F ◊/C	1			3	4/11		13 7	C ^Δ	Japo ◊
E ◊/C			3m/#9	3			#5/b13 b7 7	...	...
Eb ◊/C		9	3m/#9			5	13 b7	Cm ⁷	...
D ◊/C		b9	9			b5/#11	#5/b13 13	...	...
C# ◊/C	1	b9			4/11	5	#5/b13	...	...

3.3.11 Vietnamese ◊

Mode								Play over	a.k.a.	
C ◊/C	1		3	4/11	5	#5/b13		C ^Δ	...	
B ◊/C		3m/#9	3		b5/#11	5	7	C ^Δ	...	
B ^b ◊/C		9	3m/#9	4/11	b5/#11		b7	C [∅]	...	
A ◊/C		b9	9	3	4/11		13	...	...
A ^b ◊/C	1	b9	3m/#9	3		#5/b13		C ^{7alt}	...	
G ◊/C	1		9	3m/#9		5	7	Cm ^Δ	...	
F [#] ◊/C		b9	9		b5/#11		b7	...	...
F ◊/C	1	b9		4/11			13	C ^{7b9sus}	...	
E ◊/C	1			3		#5/b13	13	C ^{Δ#5}	...	
E ^b ◊/C			3m/#9			5	#5/b13	b7	7	...
D ◊/C		9			b5/#11	5	13	b7	C ⁷	...
C [#] ◊/C		b9		4/11	b5/#11	#5/b13	13	...	...

3.3.12 Balinese ◊

Mode								Play over	a.k.a.
C ◊/C	1	b9	3m/#9		5	#5/b13		C ^{7alt}	Pelog ◊
B ◊/C	1		9		b5/#11	5	7	C ^Δ	...
B ^b ◊/C		b9		4/11	b5/#11		b7	7	...
A ◊/C	1			3	4/11		13	b7	C ⁷ , C ^{7sus}
A ^b ◊/C			3m/#9	3		#5/b13	13	7	...
G ◊/C		9	3m/#9		5	#5/b13	b7	Cm ⁷	...
F [#] ◊/C		b9	9		b5/#11	5	13	...	...
F ◊/C	1	b9		4/11	b5/#11	#5/b13		...	...
E ◊/C	1			3	4/11	5	7	C ^Δ	Mauritanian ◊
E ^b ◊/C			3m/#9	3	b5/#11		b7	7	...
D ◊/C		9	3m/#9	4/11			13	b7	Cm ⁷
C [#] ◊/C		b9	9	3		#5/b13	13	...	...

3.4 Blues Scales

Mode								Play over	a.k.a.
C blues/C	1	9	3m/#9	3		5	13	C ^Δ , C ⁷	Major blues
B blues/C		b9	9	3m/#9		b5/#11	#5/b13	7	...
B ^b blues/C	1	b9	9		4/11	5	b7	...	...
A blues/C	1	b9		3		b5/#11	13	7	...
A ^b blues/C	1		3m/#9	4/11		#5/b13	b7	7	...
G blues/C		9		3		5	13	b	7
F [#] blues/C		b9	3m/#9		b5/#11	#5/b13	13	b7	C ^{7alt}
F blues/C	1	9		4/11	5	#5/b13	13	b7	C ^{7sus}
E blues/C		b9		3	b5/#11	5	#5/b13	7	...
E ^b blues/C	1		3m/#9	4/11	b5/#11	5	b7	C ⁷ , Cm ⁷	Minor blues
D blues/C		9		3	4/11	b5/#11	13	7	C ^Δ
C [#] blues/C		b9	3m/#9	3	4/11		#5/b13	b7	C ^{7alt}

3.5 Heptatonics

3.5.1 Diatonic scale

Mode										Play over	a.k.a.	
C diat./C	1	9		3	4/11	5		13	7	C ^Δ	Ionian	
B diat./C		b9	3m/#9	3		b5/#11	#5/b13		b7	7	...	...
Bb diat./C	1	9	3m/#9		4/11	5		13	b7		Cm ⁷	Dorian
A diat./C		b9	9	3		b5/#11	#5/b13	13		7	...	...
Ab diat./C	1	b9	3m/#9		4/11	5	#5/b13		b7		Cm ⁷	Phrygian
G diat./C	1	9		3		b5/#11	5	13		7	C ^Δ	Lydian
F# diat./C		b9	3m/#9		4/11	b5/#11	#5/b13		b7	7	...	...
F diat./C	1	9		3	4/11	5		13	b7		C ⁷	Mixolydian
E diat./C		b9	3m/#9	3		b5/#11	#5/b13	13		7	...	...
Eb diat./C	1	9	3m/#9		4/11	5	#5/b13		b7		Cm ⁷	Aeolian
D diat./C		b9	9	3		b5/#11	5	13		7	...	...
C# diat./C	1	b9	3m/#9		4/11	b5/#11	#5/b13		b7		C [∅]	Locrian

3.5.2 Minor melodic scale (mm)

Mode										Play over	a.k.a.	
C mm/C	1	9	3m/#9		4/11	5		13	7	Cm ^Δ	Minor melodic	
B mm/C		b9	9	3		b5/#11	#5/b13		b7	7	...	...
Bb mm/C	1	b9	3m/#9		4/11	5		13	b7		C ^{7b9sus}	Javanese
A mm/C	1	9		3		b5/#11	#5/b13	13		7	C ^{Δ#5}	Lydian augmented
Ab mm/C		b9	3m/#9		4/11	5	#5/b13		b7	7	...	...
G mm/C	1	9		3		b5/#11	5	13	b7		C ⁷	Lydian dominant
F# mm/C		b9	3m/#9		4/11	b5/#11	#5/b13	13		7	...	...
F mm/C	1	9		3	4/11	5	#5/b13		b7		C ^{7alt}	Aeolian dominant
E mm/C		b9	3m/#9	3		b5/#11	5	13		7	...	...
Eb mm/C	1	9	3m/#9		4/11	b5/#11	#5/b13		b7		C [∅]	Locrian melodic
D mm/C		b9	9	3	4/11	5		13	7		...	...
C# mm/C	1	b9	3m/#9	3		b5/#11	#5/b13		b7		C ^{7alt}	Superlocrian

3.5.3 Harmonic minor scale (hm)

Mode										Play over	a.k.a.	
C hm/C	1	9	3m/#9		4/11	5	#5/b13		7		Cm ^Δ	Harmonic minor
B hm/C		b9	9	3		b5/#11	5		b7	7	...	...
Bb hm/C	1	b9	3m/#9		4/11	b5/#11		13	b7		C [∅]	Locrian harmonic
A hm/C	1	9		3	4/11		#5/b13	13		7	C ^{Δ#5}	Ionian augmented
Ab hm/C		b9	3m/#9	3		5	#5/b13		b7	7	...	...
G hm/C	1	9	3m/#9			b5/#11	5	13	b7		Cm ⁷	Romanian
F# hm/C		b9	9		4/11	b5/#11	#5/b13	13		7	...	...
F hm/C	1	b9		3	4/11	5	#5/b13		b7		C ^{7alt}	Phrygian dominant
E hm/C	1		3m/#9	3		b5/#11	5	13		7	C ^Δ	Lydian harmonic
Eb hm/C		9	3m/#9		4/11	b5/#11	#5/b13		b7	7	...	...
D hm/C		b9	9	3	4/11	5		13	b7		...	...
C# hm/C	1	b9	3m/#9	3		b5/#11	#5/b13	13			C ^{7alt}	Harmonic altered

3.5.4 Harmonic major scale (hM)

Mode								Play over	a.k.a.		
C hM/C	1	9	3	4/11	5	#5/b13	7	C Δ	...		
B hM/C		b9	3m/#9	3		b5/#11	5	...	...
B \flat hM/C	1	9	3m/#9	3	4/11	b5/#11	5	C \emptyset	...		
A hM/C		b9	9	3	4/11		#5/b13	13	7	...	
A \flat hM/C	1	b9	3m/#9	3			#5/b13	13	b7	7	Superphrygian
G hM/C	1	9	3m/#9	3		b5/#11	5	13	7	Cm Δ	Lydian minor
F hM/C		b9	9	3	4/11	b5/#11	5	#5/b13	b7	7	...
F \sharp hM/C	1	b9		3	4/11		5	13	b7	7	C \emptyset
E hM/C	1		3m/#9	3		b5/#11	#5/b13	13	7	C Δ #5	...
E \flat hM/C		9	3m/#9	3	4/11		#5/b13	13	b7	7	...
D hM/C		b9	9	3		b5/#11	5	13	b7	7	...
C \sharp hM/C	1	b9	3m/#9	3	4/11	b5/#11	#5/b13	13		C \emptyset ⁷	...

3.5.5 Hungarian dominant scale (Hd)

Mode								Play over	a.k.a.			
C Hd/C	1		3m/#9	3		b5/#11	5	13	b7	C ⁷	...	
B Hd/C		9	3m/#9	3	4/11	b5/#11	5	#5/b13	13	7	...	
B \flat Hd/C		b9	9	3	4/11		5	#5/b13	13	b7	7	...
A Hd/C	1	b9	3m/#9	3		b5/#11	5	13		C \emptyset ^{7alt}	...	
A \flat Hd/C	1	9	3m/#9	3	4/11	b5/#11	5	#5/b13		Cm Δ	...	
G Hd/C		b9	9	3	4/11		5		b7	7	...	
F \sharp Hd/C	1	b9	3m/#9	3		b5/#11		13	b7	7	C \emptyset ^{7alt}	
F Hd/C	1	9	3m/#9	3	4/11		#5/b13	13	7	Cm Δ	...	
E Hd/C		b9	9	3			5	#5/b13	b7	7	...	
E \flat Hd/C	1	b9	3m/#9	3		b5/#11	5	13	b7	7	C \emptyset ^{7alt}	
D Hd/C	1	9		3	4/11	b5/#11	5	#5/b13	13	7	C \emptyset ⁷	
C \sharp Hd/C		b9 $\$$		3	4/11		5	#5/b13	13	b7	7	...

3.5.6 Hungarian minor scale (Hm)

Mode								Play over	a.k.a.		
C Hm/C	1	9	3m/#9			b5/#11	5	#5/b13	7	Cm Δ	Gypsy
B Hm/C		b9	9		4/11	b5/#11	5		b7	7	...
B \flat Hm/C	1	b9		3	4/11	b5/#11		13	b7	7	C \emptyset ^{7alt}
A Hm/C	1		3m/#9	3	4/11		#5/b13	13	7	...	...
A \flat Hm/C		9	3m/#9	3			5	#5/b13	b7	7	...
G Hm/C		b9	9	3m/#9		b5/#11	5	13	b7	7	...
F \sharp Hm/C	1	b9	9		4/11	b5/#11	5	#5/b13	13	7	...
F Hm/C	1	b9		3	4/11		5	#5/b13		7	C Δ
E Hm/C	1		3m/#9	3		b5/#11	5		b7	7	C \emptyset ^{7alt}
E \flat Hm/C		9	3m/#9	3	4/11	b5/#11		13	b7	7	...
D Hm/C		b9	9	3	4/11		#5/b13	13	b7	7	...
C \sharp Hm/C	1	b9	3m/#9	3			5	#5/b13	13	7	C \emptyset ^{7alt}

3.5.7 Neapolitan scale (n)

Mode								Play over	a.k.a.		
C n/C	1	b9	3m/#9	4/11			5	13	7	Cm Δ	...
B n/C	1	9		3		b5/#11		#5/b13	b7	7	...
B \flat n/C		b9	3m/#9	4/11			5	13	b7	7	...
A n/C	1	9		3		b5/#11		#5/b13	13	b7	C \emptyset ^{7alt}
A \flat n/C		b9	3m/#9	4/11			5	#5/b13	13	7	...
G n/C	1	9		3		b5/#11	5	#5/b13	b7	7	C \emptyset ^{7alt}
F \sharp n/C		b9	3m/#9	4/11		b5/#11	5	13	7	7	...
F n/C	1	9		3	4/11	b5/#11		#5/b13	b7	7	C \emptyset ^{7alt}
E n/C		b9	3m/#9	3	4/11		5	13	7	7	...
E \flat n/C	1	9	3m/#9	3		b5/#11		#5/b13	b7	7	C \emptyset ^{7alt}
D n/C		b9	9	3m/#9	4/11		5	13	7	7	...
C \sharp n/C	1	b9	9		3	b5/#11		#5/b13	b7	7	C \emptyset ^{7alt}

3.5.8 Harmonic neapolitan scale (hn)

Mode									Play over	a.k.a.
C hn/C	1	b9	3m/#9	4/11	5	#5/b13	7		Cm ^Δ	...
B hn/C	1	9	3	b5/#11	5	b7	7		...	...
Bb hn/C		b9	3m/#9	4/11	b5/#11	13	b7	7	...	...
A hn/C	1	9	3	4/11	#5/b13	13	b7		C ^{7alt}	...
Ab hn/C		b9	3m/#9	3	5	#5/b13	13	7	...	...
G hn/C	1	9	3m/#9	b5/#11	5	#5/b13	b7		Cm ⁷	...
F# hn/C		b9	9	4/11	b5/#11	5	13	7	...	...
F hn/C	1	b9	3	4/11	b5/#11	#5/b13	b7		C ^{7alt}	...
E hn/C	1		3m/#9	3	4/11	5	13	7	C ^Δ	...
Eb hn/C		9	3m/#9	3	b5/#11	#5/b13	b7	7	...	...
D hn/C		b9	9	3m/#9	4/11	5	13	b7	...	...
C# hn/C	1	b9	9	3	b5/#11	#5/b13	13		...	...

3.5.9 Enigmatic scale (e)

Mode									Play over	a.k.a.
C e/C	1	b9	3	b5/#11	#5/b13	b7	7		C ^{7alt}	...
B e/C	1		3m/#9	4/11	5	13	b7	7	Cm ⁷	...
Bb e/C		9	3	b5/#11	#5/b13	13	b7	7	...	...
A e/C		b9	3m/#9	4/11	5	#5/b13	13	b7	...	...
Ab e/C	1	9	3	b5/#11	5	#5/b13	13		C ^Δ , C ⁷	...
G e/C		b9	3m/#9	4/11	b5/#11	5	#5/b13	7	...	...
F# e/C	1	9	3	4/11	b5/#11	5	b7		C ⁷	Hybrid blues
F e/C		b9	3m/#9	3	4/11	b5/#11	13	7	...	...
E e/C	1	9	3m/#9	3	4/11	#5/b13	b7		C ^{7alt}	...
Eb e/C		b9	9	3m/#9	3	5	13	7	...	...
D e/C	1	b9	9	3m/#9	b5/#11	#5/b13	b7		C ^{7alt}	...
C# e/C	1	b9	9	4/11	5	13	7		...	...

3.6 Symmetric Scales

3.6.1 Unitonic scale (u)

Mode									Play over
C, D, E, F#, Ab, Bb u/C	1	9	3	b5/#11	#5/b13	b7			C ^{7alt}
B, C#, Eb, F, G, A u/C		b9	3m/#9	4/11	5	13	7		...

3.6.2 Augmented scale (a)

Mode									Play over
C, Ab, E a/C	1		3m/#9	3	5	#5/b13	7		C ^Δ
B, G, Eb a/C		9	3m/#9		b5/#11	5	b7	7	Cm
Bb, F#, D a/C		b9	9	4/11	b5/#11	13	b7		...
A, F, C# a/C	1	b9		3	4/11	#5/b13	13		...

3.6.3 Diminished scale (d)

Mode									Play over	
C d/C	1	9	3m/#9	4/11	b5/#11	#5/b13	13	7	C ^{o7}	
B d/C		b9	9	3	4/11	5	#5/b13	b7	7	...
Bb d/C	1	b9	3m/#9	3	b5/#11	5	13	b7	C ⁷ , C ^{7alt}	

4 DECLINING MELODIC ELEMENTS - DEVELOPING VERSATILITY

4.1 Using the Metronome

Practicing scales and tunes, the metronome does not have to be on each beat. Sylvain LUC showed us how it could be used to develop a good time feel. Here are a few ways to use it.

Ballad, ON beat Ballad, OFF beat

Medium / up-tempo swing Slow swing Samba / Bossa-Nova

Fast waltz Slow waltz

Ternary

4.2 Tremolo

The following patterns can be applied to any melodic element, but they sound particularly good with arpeggios.

4.2.1 By Two

On time Delayed Polyrhythmic

4.2.2 By Three

On time Delayed 1

Delayed 2 Polyrhythmic

4.2.3 By four

On time Delayed 1

Delayed 2 Delayed 3

Polyrhythmic

4.3 Melodic Patterns

The following patterns should be practiced on all melodic elements, ascending and descending. Those highlighted in grey either contain repetitions or are equivalent to intervallic patterns. They are not necessarily bad, but they sound different.

4.3.1 Groups of three

12 3 C[△] etc.

1 3 2 C[△] etc.

2 1 3 C[△] etc.

2 3 1 C[△]

3 1 2 C[△] etc.

3 2 1 C[△] etc.

Delayed 1 C[△] etc.

Delayed 2 C[△] etc.

Polyrhythmic C[△] etc.

4.3.2 Groups of four

1 2 3 4 C[△] etc.

1 2 4 3 C[△] etc.

1 3 2 4 C[△] etc.

1 3 4 2 C[△] etc.

1 4 2 3 C[△] etc.

1 4 3 2 C[△] etc.

2 1 3 4 C[△] etc.

2 1 4 3 C[△] etc.

2 3 1 4 C[△] etc.

2 3 4 1 C[△] etc.

2 4 1 3 C[△] etc.

2 4 3 1 C[△] etc.

3 1 2 4 C[△] etc.

3 1 4 2 C[△] etc.

3 2 1 4 C[△] etc.

3 2 4 1 C[△] etc.

3 4 1 2 C[△] etc.

3 4 2 1 C[△] etc.

4 1 2 3 C[△] etc.

4 1 3 2 C[△] etc.

4 2 1 3 C[△] etc.

4 2 3 1 C[△] etc.

4 3 1 2 C[△] etc.

4 3 2 1 C[△] etc.

Delayed 1 C[△] etc.

Delayed 2 C[△] etc.

Delayed 3 C[△] etc.

Polyrhythmic C[△] etc.

4.4 Intervallic Patterns

The following patterns should be practiced on all melodic elements, ascending and descending. When applied to arpeggios or pentatonic scales, the interval jumps are larger than what is indicated for heptatonic scales, but the principle remains the same.

4.4.1 In thirds

Ascending thirds *Descending thirds* *Alternating thirds 1*

Alternating thirds 2 *Harmonized thirds*

Detailed description: This section contains five musical examples in C major, 4/4 time. 1. 'Ascending thirds': A scale starting on C4, with intervals of a third (C4-E4, E4-G4, G4-B4, B4-D5, D5-F5, F5-A5, A5-C6). 2. 'Descending thirds': A scale starting on C5, with intervals of a third (C5-B4, B4-G4, G4-F4, F4-E4, E4-D4, D4-C4). 3. 'Alternating thirds 1': A scale starting on C4, with intervals of a third (C4-E4, E4-G4, G4-B4, B4-D5, D5-F5, F5-A5, A5-C6). 4. 'Alternating thirds 2': A scale starting on C4, with intervals of a third (C4-E4, E4-G4, G4-B4, B4-D5, D5-F5, F5-A5, A5-C6). 5. 'Harmonized thirds': A scale starting on C4, with intervals of a third (C4-E4, E4-G4, G4-B4, B4-D5, D5-F5, F5-A5, A5-C6).

4.4.2 In fourths

Ascending fourths *Descending fourths* *Alternating fourths 1*

Alternating fourths 2 *Harmonized fourths*

Detailed description: This section contains five musical examples in C major, 4/4 time. 1. 'Ascending fourths': A scale starting on C4, with intervals of a fourth (C4-F4, F4-B4, B4-E5, E5-A5, A5-D6, D6-G6, G6-C7). 2. 'Descending fourths': A scale starting on C5, with intervals of a fourth (C5-F4, F4-B4, B4-E5, E5-A5, A5-D6, D6-G6, G6-C7). 3. 'Alternating fourths 1': A scale starting on C4, with intervals of a fourth (C4-F4, F4-B4, B4-E5, E5-A5, A5-D6, D6-G6, G6-C7). 4. 'Alternating fourths 2': A scale starting on C4, with intervals of a fourth (C4-F4, F4-B4, B4-E5, E5-A5, A5-D6, D6-G6, G6-C7). 5. 'Harmonized fourths': A scale starting on C4, with intervals of a fourth (C4-F4, F4-B4, B4-E5, E5-A5, A5-D6, D6-G6, G6-C7).

4.4.3 In fifths

Ascending fths *Descending fths* *Alternating fths 1*

Alternating fths 2 *Harmonized fths*

Detailed description: This section contains five musical examples in C major, 4/4 time. 1. 'Ascending fths': A scale starting on C4, with intervals of a fifth (C4-G4, G4-D5, D5-A5, A5-E6, E6-B6, B6-F#7, F#7-C8). 2. 'Descending fths': A scale starting on C5, with intervals of a fifth (C5-G4, G4-D5, D5-A5, A5-E6, E6-B6, B6-F#7, F#7-C8). 3. 'Alternating fths 1': A scale starting on C4, with intervals of a fifth (C4-G4, G4-D5, D5-A5, A5-E6, E6-B6, B6-F#7, F#7-C8). 4. 'Alternating fths 2': A scale starting on C4, with intervals of a fifth (C4-G4, G4-D5, D5-A5, A5-E6, E6-B6, B6-F#7, F#7-C8). 5. 'Harmonized fths': A scale starting on C4, with intervals of a fifth (C4-G4, G4-D5, D5-A5, A5-E6, E6-B6, B6-F#7, F#7-C8).

4.4.4 In sixths

Ascending sixths *Descending sixths* *Alternating sixths 1*

Alternating sixths 2 *Harmonized sixths*

Detailed description: This section contains five musical examples in C major, 4/4 time. 1. 'Ascending sixths': A scale starting on C4, with intervals of a sixth (C4-A4, A4-G4, G4-F4, F4-E4, E4-D4, D4-C4). 2. 'Descending sixths': A scale starting on C5, with intervals of a sixth (C5-A4, A4-G4, G4-F4, F4-E4, E4-D4, D4-C4). 3. 'Alternating sixths 1': A scale starting on C4, with intervals of a sixth (C4-A4, A4-G4, G4-F4, F4-E4, E4-D4, D4-C4). 4. 'Alternating sixths 2': A scale starting on C4, with intervals of a sixth (C4-A4, A4-G4, G4-F4, F4-E4, E4-D4, D4-C4). 5. 'Harmonized sixths': A scale starting on C4, with intervals of a sixth (C4-A4, A4-G4, G4-F4, F4-E4, E4-D4, D4-C4).

4.4.5 In sevenths

Ascending sevenths *Descending sevenths* *Alternating sevenths 1*

Alternating sevenths 2 *Harmonized sevenths*

Detailed description: This section contains five musical examples in C major, 4/4 time. 1. 'Ascending sevenths': A scale starting on C4, with intervals of a seventh (C4-B4, B4-A4, A4-G4, G4-F4, F4-E4, E4-D4, D4-C4). 2. 'Descending sevenths': A scale starting on C5, with intervals of a seventh (C5-B4, B4-A4, A4-G4, G4-F4, F4-E4, E4-D4, D4-C4). 3. 'Alternating sevenths 1': A scale starting on C4, with intervals of a seventh (C4-B4, B4-A4, A4-G4, G4-F4, F4-E4, E4-D4, D4-C4). 4. 'Alternating sevenths 2': A scale starting on C4, with intervals of a seventh (C4-B4, B4-A4, A4-G4, G4-F4, F4-E4, E4-D4, D4-C4). 5. 'Harmonized sevenths': A scale starting on C4, with intervals of a seventh (C4-B4, B4-A4, A4-G4, G4-F4, F4-E4, E4-D4, D4-C4).

4.4.6 In octaves

Ascending octaves *etc.*

Descending octaves *etc.*

Alternating octaves 1 *etc.*

Alternating octaves 2 *etc.*

Harmonized octaves *etc.*

4.5 Harmonizing Scales

Intervallic patterns can be generalized to breaking down scales into triads and seventh arpeggios. Pentatonic scales can be harmonized in quartal chords, too.

4.5.1 Triads built in thirds

Ascending triads *etc.*

Descending triads *etc.*

Alternating triads 1 *etc.*

Alternating triads 2 *etc.*

4.5.2 Triads built in fourths

Ascending triads *etc.*

Descending triads *etc.*

Alternating triads 1 *etc.*

Alternating triads 2 *etc.*

4.5.3 Triads built in fifths

Ascending triads *etc.*

Descending triads *etc.*

Alternating triads 1 *etc.*

Alternating triads 2 *etc.*

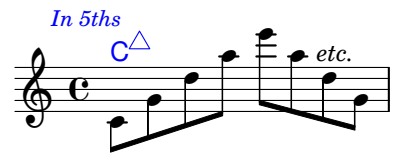
4.5.4 Seventh arpeggios

Ascending arpeggios *etc.*

Descending arpeggios *etc.*

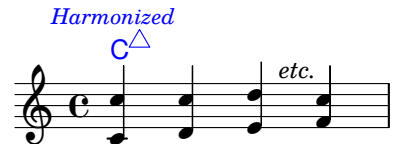
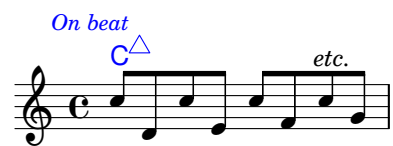
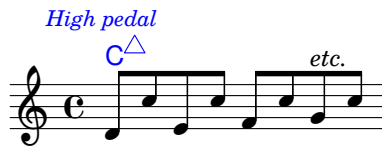
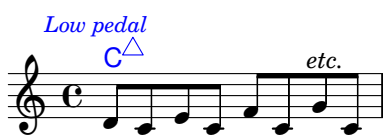


4.5.5 Arpeggios and their upper structure



4.5.6 Pedals

Pedals are another way to play several sounds at the same time. The pedal note is usually a rather neutral tone (root or fifth). Fingerings and picking can be tricky on the guitar.



4.6 Chord Scales

Chord scales can be played using any inversion of any chord form (Drop 2, etc.) on all possible string groups.

4.6.1 Chord scales for the main modes

Scale or Mode	I ^Δ	II ^{m7}	III ^{m7}	IV ^Δ	V ⁷	VI ^{m7}	VII [∅]
Ionian	I ^Δ	II ^{m7}	III ^{m7}	IV ^Δ	V ⁷	VI ^{m7}	VII [∅]
Dorian	Im ⁷	II ^{m7} bIII ^Δ	III ^{m7}	IV ⁷	V ^{m7}	VI [∅]	bVII ^Δ
Phrygian	Im ⁷ bII ^Δ	II ⁷	bIII ⁷	IV ^{m7}	V [∅] bVI ^Δ	VI ^{m7}	bVII ^{m7}
Lydian	I ^Δ	II ⁷	III ^{m7}	IV [∅]	V ^Δ #IV [∅]	VI ^{m7}	VII ^{m7}
Mixolydian	I ⁷	II ^{m7}	III [∅]	IV ^Δ	V ^{m7}	VI ^{m7}	bVII ^Δ
Aeolian	Im ⁷	II [∅] bIII ^Δ	III [∅]	IV ^{m7}	V ^{m7} bVI ^Δ	VI ^{m7}	bVII ⁷
Locrian	I [∅] bII ^Δ	II [∅]	bIII ^{m7}	IV ^{m7} bV ^Δ	bVI ⁷	bVII ^{m7}	bVII ^{m7}
Minor melodic	Im ^Δ	II ^{m7} bIII ^{Δ#5}	III ⁷	IV ⁷	V ⁷	VI [∅]	VII [∅]
Javanese	Im ⁷ bII ^{Δ#5}	II ⁷	bIII ⁷	IV ⁷	V [∅]	VI [∅]	bVII ^{mΔ}
Lydian augmented	I ^{Δ#5}	II ⁷	III ⁷	IV [∅]	V [∅] #IV [∅]	VI ^{mΔ}	VII ^{m7}
Lydian dominant	I ⁷	II ⁷	III [∅]	IV ^{mΔ}	V ^{mΔ} #IV [∅]	VI ^{m7}	bVII ^{Δ#5}
Aeolian dominant	I ⁷	II [∅]	III [∅]	IV ^{m7}	V ^{m7} bVI ^{Δ#5}	VI ^{m7}	bVII ^{m7}
Locrian melodic	I [∅]	II [∅]	bIII ^{mΔ}	IV ^{m7}	bV ^{Δ#5}	bVI ⁷	bVII ⁷
Superlocrian	I [∅] bII ^{mΔ}	II [∅]	bIII ^{m7} bIV ^{Δ#5}	IV ^{m7}	bV ⁷	bVI ⁷	bVII [∅]
Harm. minor	Im ^Δ	II [∅] bIII ^{Δ#5}	III ⁷	IV ^{m7}	V ⁷ bVI ^Δ	VI [∅]	VII ^{∅7}
Locrian harmonic	I [∅] bII ^{Δ#5}	II [∅]	bIII ^{m7}	IV ⁷ bV ^Δ	bVI ^Δ	VI ^{∅7}	bVII ^{mΔ}
Ionian augmented	I ^{Δ#5}	II ^{m7}	III ⁷	IV ^Δ	bV ^Δ	VI ^{∅7}	VII [∅]
Romanian	Im ⁷	II ⁷ bIII ^Δ	III [∅]	IV ^{mΔ}	#IV ^{∅7}	V ^{mΔ}	bVII ^{Δ#5}
Phrygian dominant	V ⁷ bII ^Δ	II ⁷	III ^{∅7}	IV ^{mΔ}	V [∅] bVI ^{Δ#5}	VI [∅]	bVII ^{m7}
Lydian harmonic	I ^Δ	#II ^{∅7}	III ^{mΔ}	IV [∅]	#IV [∅]	V ^{Δ#5}	VII ⁷
Harmonic altered	I ^{∅7} bII ^{mΔ}	II [∅]	bIII [∅] bIV ^{Δ#5}	bV ^{m7}	bVI ⁷	bbVII ^Δ	bVII [∅]
Harmonic major	I ^Δ	II [∅]	III ^{m7}	IV ^{mΔ}	V ⁷ bVI ^{Δ#5}	VI [∅]	VII ^{∅7}
Superphrygian	Im ⁷ bII ^{mΔ}	II ⁷	bIII ⁷ bIV ^{Δ#5}	IV ^{m7}	V ^{∅7} bVI ^Δ	VI [∅]	bVII [∅]
Lydian minor	Im ^Δ	II ⁷ bIII ^{Δ#5}	III [∅]	IV [∅]	#IV ^{∅7}	V ^Δ	VII ^{m7}
Unitonic	I+	II+	III+	bV+	bVI+	bVII+	bVII+
Augmented	I+	bIII+	bVI+	IV ^{∅7}	V+	bVI+	VII+
Diminished	I ^{∅7}	II ^{∅7} bIII ^{∅7}	bVI+	IV ^{∅7}	bV ^{∅7}	VI ^{∅7}	bbVII ^{∅7}

4.6.2 The Barry HARRIS Approach (Parallel Motion)

Besides regular chord scales, it is possible to link the successive inversions of a chord with diminished passing chords. It is a particular application of harmonized bebop scales. This trick can be applied to any heptatonic scale with either a major sixth or a minor seventh. The diminished passing chord corresponds to the major seventh (chord tone or passing tone), ninth, eleventh and minor sixths (passing tone) or $b13$. Here are examples in Drop 2, for the most common chords.

C⁶ chord scale (harmonized ionian be-bebop scale)

C⁶ D⁰⁷ C⁶/E F⁰⁷ C⁶/G A \flat ⁰⁷ C⁶/A etc. B⁰⁷

Cm⁶ chord scale (harmonized minor melodic be-bebop scale)

Cm⁶ D⁰⁷ Cm⁶/E \flat F⁰⁷ Cm⁶/G A \flat ⁰⁷ Cm⁶/A etc. B⁰⁷

C⁷ chord scale (harmonized aeolian dominant be-bebop scale)

C⁷ D⁰⁷ C⁷/E F⁰⁷ C⁷/G A \flat ⁰⁷ C⁷/B \flat etc. B⁰⁷

Cm⁷ chord scale (harmonized aeolian be-bebop scale)

Cm⁷ D⁰⁷ Cm⁷/E \flat F⁰⁷ Cm⁷/G A \flat ⁰⁷ Cm⁷/B \flat etc. B⁰⁷

C[∅] chord scale (harmonized locrian melodic be-bebop scale)

C[∅] D⁰⁷ C[∅]/E \flat F⁰⁷ C[∅]/G \flat A \flat ⁰⁷ C[∅]/B \flat etc. B⁰⁷

C⁰⁷ chord scale (harmonized diminished scale)

C⁰⁷ D⁰⁷ C⁰⁷/E \flat F⁰⁷ C⁰⁷/G \flat A \flat ⁰⁷ C⁰⁷/A etc. B⁰⁷

C⁷ \flat 5 chord scale

C⁷ \flat 5 D⁰⁷ C⁷ \flat 5/E F⁰⁷ C⁷ \flat 5/G \flat A \flat ⁰⁷ C⁷ \flat 5/B \flat etc. B⁰⁷

In practice, the system taught by Barry HARRIS focuses on four of these scales:

1. Major diminished (ionian be-bop);
2. Minor diminished (minor melodic be-bop);
3. Dominant diminished (aeolian be-bop);
4. Dominant \flat 5 diminished.

Barry Harris's system makes parallel (see above), oblique and contrary motions much easier.

4.6.3 Oblique Motion (Barry HARRIS)

To go through the different chord tones, keeping the bass constant, we just need to cycle through the different chord voicings (octave chord, Drop 2, Drop 3, Drop 2,4, double octave chord, and back), for all chord qualities. In C⁶:

Musical notation for the C⁶/E inversion sequence. The sequence consists of eight chords: 8ve chord, Drop 2, Drop 3, Drop 2,4, Double 8ve chord, Drop 2,4, Drop 3, and Drop 2.

It also works for all other inversions. In C⁶/E:

Musical notation for the C⁶/E inversion sequence. The sequence consists of eight chords: 8ve chord, Drop 2, Drop 3, Drop 2,4, Double 8ve chord, Drop 2,4, Drop 3, and Drop 2.

In C⁶/G:

Musical notation for the C⁶/G inversion sequence. The sequence consists of eight chords: 8ve chord, Drop 2, Drop 3, Drop 2,4, Double 8ve chord, Drop 2,4, Drop 3, and Drop 2.

In C⁶/A:

Musical notation for the C⁶/A inversion sequence. The sequence consists of eight chords: 8ve chord, Drop 2, Drop 3, Drop 2,4, Double 8ve chord, Drop 2,4, Drop 3, and Drop 2.

Inversely, we can cycle through the same chord voicing sequence if one wants to keep the soprano voice constant and vary the bass note. In C⁶:

Musical notation for the C⁶ inversion sequence. The sequence consists of eight chords: Double 8ve chord, Drop 2,4, Drop 3, Drop 2, 8ve chord, Drop 2, Drop 3, and Drop 2,4.

and so on for all the other inversions.

4.6.4 Contrary Motion (Barry HARRIS)

It is possible to have the bass and soprano voices to move contrarily along the scales. Thomas ECHOLS calls that the "elevator". In C⁶, it gives:

Musical notation for Contrary Motion in C⁶. The sequence consists of two rows of chords. The first row: Unisson, Third, Triad, Shell chord, 8ve chord, Drop 2, Drop 3, Drop 2,4. The second row: Double 8ve chord, Drop 2,4, Drop 3, Drop 2, 8ve chord, Shell chord, Triad, Third.

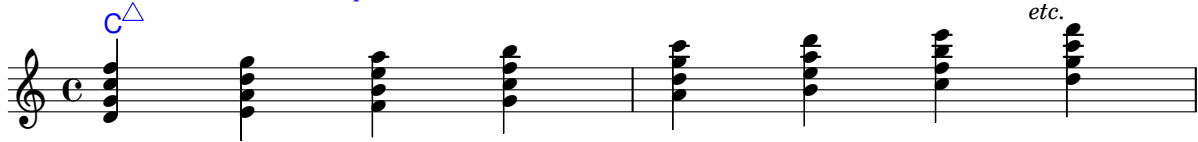
4.6.5 Quartal harmony

Scales can also be harmonized in quartal triads and sevenths chords. My personal taste however makes me lean more toward the harmonization of "no-avoid-note scales", in a more modal context.

D dorian mode harmonized in quartal triads

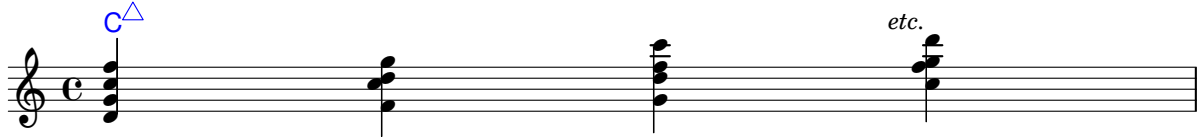
Musical notation for the D dorian mode harmonized in quartal triads. The sequence starts with a C^Δ chord and continues with quartal triads, ending with "etc."

D dorian mode harmonized in quartal seventh chords



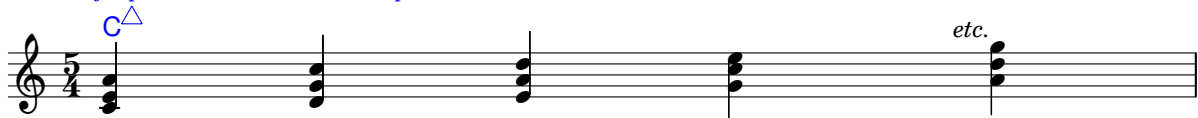
Quartal chords can also be inverted the same way as regular chords.

Dm7 quartal chord inversions



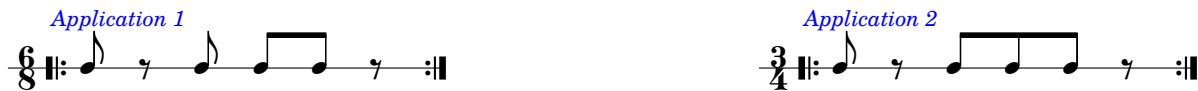
Quartal harmony works particularly well with pentatonic scales.

C major pentatonic harmonized in quartal triads



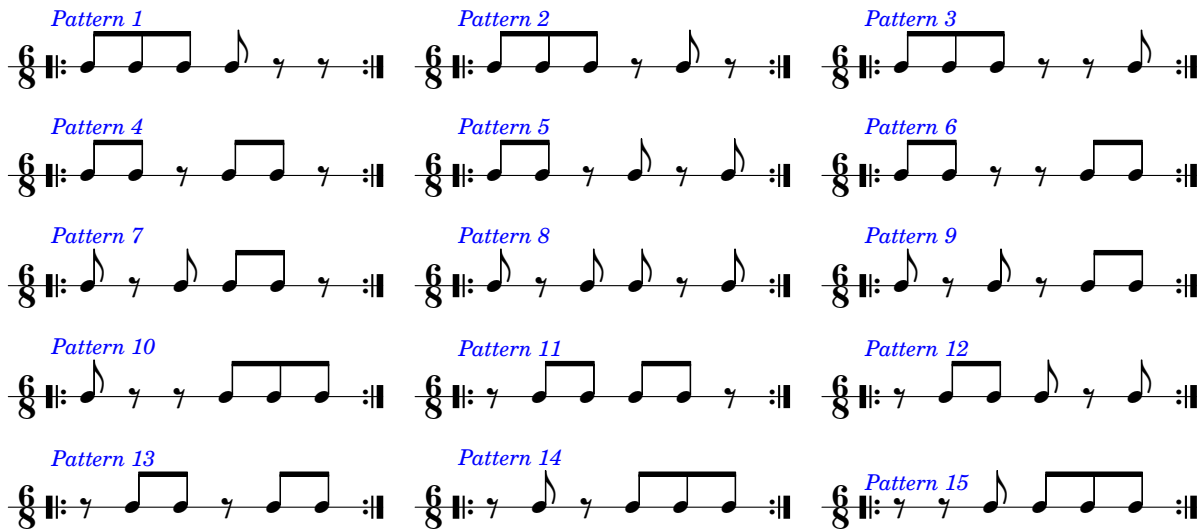
4.7 Rhythmic Patterns

The following rhythmic patterns can be applied either to ternary or binary beats provided that the total number of counts is conserved. For instance, the four-on-six patterns can be played these two different ways:

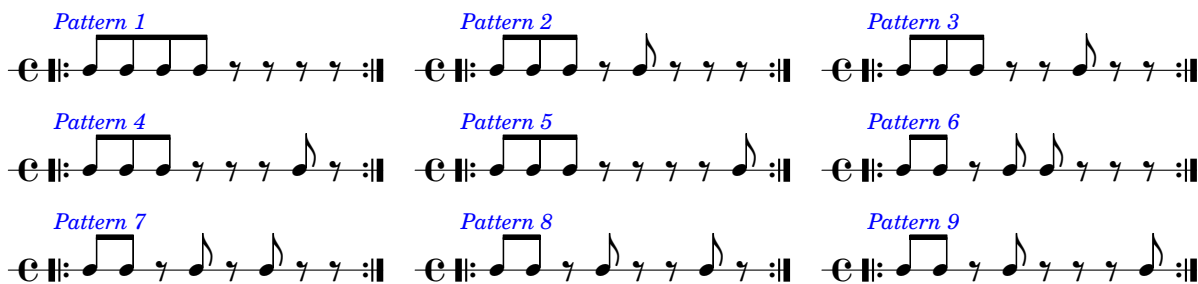


There are many more patterns, but four notes is a good base, as it is the way we conceive improvisation in Jazz (four notes of a seventh arpeggio, four-note scale fragment, Coltrane patterns on *Giant Steps*, etc.).

4.7.1 Four on six patterns



4.7.2 Four on eight patterns



Pattern 10

Pattern 11

Pattern 12

Pattern 13

Pattern 14

Pattern 15

Pattern 16

Pattern 17

Pattern 18

Pattern 19

Pattern 20

Pattern 21

Pattern 22

Pattern 23

Pattern 24

Pattern 25

Pattern 26

Pattern 27

Pattern 28

Pattern 29

Pattern 30

Pattern 31

Pattern 32

Pattern 33

Pattern 34

Pattern 35

Pattern 36

Pattern 37

Pattern 38

Pattern 39

Pattern 40

Pattern 41

Pattern 42

Pattern 43

Pattern 44

Pattern 45

Pattern 46

Pattern 47

Pattern 48

Pattern 49

Pattern 50

Pattern 51

Pattern 52

Pattern 53

Pattern 54

Pattern 55

Pattern 56

Pattern 57

Pattern 58

Pattern 59

Pattern 60

Pattern 61

Pattern 62

Pattern 63

Pattern 64

Pattern 65

Pattern 66

Pattern 67

Pattern 68

Pattern 69

Pattern 70

5 IMPROVISING THROUGH CHORD CHANGES

5.1 Chord/Scale Relation

We list the most obvious melodic elements to play on different types of chords. More combinations are possible, but these are a good start. The substituted arpeggios can be incorporated into solo lines or as block chords.

5.1.1 Most common chords

Table 1: Major seventh chord (C^Δ)

Melodic element	
C lydian mode	1 3 5 7 9 $\sharp 11$ 13
C major pentatonic	1 3 5 7 9 13
G major pentatonic	3 5 7 9 13
D major pentatonic	3 7 9 $\sharp 11$ 13
A_m^7 arpeggio	1 3 5 7 9 13
C^Δ arpeggio	1 3 5 7 9 13
E_m^7 arpeggio	3 5 7 9 13
G^Δ arpeggio	5 7 9 $\sharp 11$ 13
B_m^7 arpeggio	7 9 $\sharp 11$ 13
D^7 arpeggio	1 3 5 7 9 $\sharp 11$ 13
$F\sharp^\emptyset$	1 3 5 7 9 $\sharp 11$ 13

Table 2: Minor seventh chord (Cm^Δ)

Melodic element	
C minor melodic	1 3m 5 7 9 11 13
F dominant pentatonic	1 3m 5 7 9 11 13
E_b unitonic pentatonic	3m 5 7 9 11 13
G dominant pentatonic	5 7 9 11 13
A^\emptyset arpeggio	1 3m 5 7 9 11 13
Cm^Δ arpeggio	1 3m 5 7 9 11 13
$E_b^{\Delta\sharp 5}$ arpeggio	3m 5 7 9 11 13
G^7 arpeggio	5 7 9 11 13
B^\emptyset arpeggio	7 9 11 13
Dm^7 arpeggio	1 3m 5 7 9 11 13
F^7	1 3m 5 7 9 11 13

Table 3: Dominant seventh chord (G^7)

Melodic element	
G lydian dominant mode	1 3 5 $b7$ 9 $\sharp 11$ 13
G dominant pentatonic	1 3 5 $b7$ 9 13
D kumoi pentatonic	3 5 $b7$ 9 13
A harmonic major pentatonic	3 $b7$ 9 $\sharp 11$ 13
G^7 arpeggio	1 3 5 $b7$ 9 13
B^\emptyset arpeggio	3 5 $b7$ 9 13
Dm^Δ arpeggio	5 $b7$ 9 $\sharp 11$ 13
$F^{\Delta\sharp 5}$ arpeggio	$b7$ 9 $\sharp 11$ 13
A^7 arpeggio	1 3 5 $b7$ 9 $\sharp 11$ 13
$C\sharp^\emptyset$ arpeggio	1 3 5 $b7$ 9 $\sharp 11$ 13
E^7	1 3 5 $b7$ 9 13

5.1.2 Altered dominant chords

Table 4: Minor seventh chord (Dm^7)

Melodic element	
D dorian mode	1 3m 5 b7 9 11 13
F major pentatonic	1 3m 5 b7 9
C major pentatonic	3m 5 b7 9 13
G major pentatonic	3m b7 9 11 13
Dm^7 arpeggio	1 3m 5 b7
F^Δ arpeggio	3m 5 b7 9
Am^7 arpeggio	5 b7 9 11
C^Δ arpeggio	b7 9 11 13
Em^7 arpeggio	1 9 11 13
G^7 arpeggio	1 3m 11 13
B^\emptyset	1 3m 5 13

Table 5: Half-diminished seventh chord (D^\emptyset)

Melodic element	
D locrian melodic mode	1 3m b5 b7 9 11 b13
F kumoi pentatonic	1 3m b5 b7 11
C harmonic major pentatonic	1 b5 b7 9 11
G javanese pentatonic	1 b5 9 11 b13
D^\emptyset arpeggio	1 3m b5 b7
Fm^Δ arpeggio	3m b5 b7 9
$A^\flat\Delta\#5$ arpeggio	b5 b7 9 11
$C7$ arpeggio	b7 9 11 b13
E^\emptyset arpeggio	1 9 11 b13
Gm^7 arpeggio	1 3m 11 b13
$B^\flat7$	1 3m 5 b13

Table 6: Diminished seventh chord ($B^{\circ7}$)

Melodic element	
G diminished mode	1 3m b5 bb7 9 11 b13 7
B diminished pentatonic	1 3m b5 bb7 9
$B^{\circ7}$ arpeggio	1 3m b5 bb7
$C^{\circ7}$ arpeggio	9 11 b13 7

Table 7: Superlocrian seventh chord ($G^{7alt} \Leftrightarrow D^\flat7$ lydian dominant)

Melodic element	
G superlocrian mode	b5 b7 b9 3 b13 1 #9
D^\flat dominant pentatonic	b5 b7 b9 3 b13
A^\flat kumoi pentatonic	b7 b9 3 b13 #9
E^\flat harmonic major pentatonic	b7 3 b13 1 #9
$D^\flat7$ arpeggio	b5 b7 b9 3
F^\emptyset arpeggio	b7 b9 3 b13
$A^\flat m^\Delta$ arpeggio	b9 3 b13 1
$B^\Delta\#5$ arpeggio	3 b13 1 #9
$E^\flat7$ arpeggio	b5 b13 1 #9
G^\emptyset arpeggio	b5 b7 1 #9
$B^\flat7$	b5 b7 b9 #9

Table 8: Unitonic altered seventh chord (G^{7alt})

Melodic element	
G unitonic mode	1 3 #5 b7 9 #11
G unitonic pentatonic	1 3 #5 b7 9
G+ arpeggio	1 3 #5
A+ arpeggio	b7 9 #11

Table 9: Diminished dominant seventh chord (G^{7alt})

Melodic element	
A \flat diminished mode	1 3 $\flat 5$ $\flat 7$ $\flat 9$ $\sharp 11$ 13 $\sharp 9$
F diminished pentatonic	1 3 $\flat 5$ $\flat 7$ $\flat 9$
A \flat diminished arpeggio	3 $\flat 5$ $\flat 7$ $\flat 9$
G diminished arpeggio	1 $\sharp 11$ 13 $\sharp 9$

5.1.3 Derived chords

Several commonly used chords are the inversion of other ones.

Major tonality chord	Chord equivalent	Minor tonality chord	Chord equivalent
C^6 \Leftrightarrow Am $^7/C$ (C lydian) (A dorian)		Cm^6 \Leftrightarrow A $^{\flat 7}/C$ (C minor melodic) (A locrian melodic)	
G^{9sus} \Leftrightarrow Dm $^7/G$ (G mixolydian) (D dorian)		$G^{7\flat 9sus}$ \Leftrightarrow D $^{\flat 7}/G$ (G javanese) (D locrian melodic)	
$G^{7\flat 9}$ \Leftrightarrow D $^{\circ 7}/G$ (G diminished dominant) (D diminished dominant)		$G^{7\flat 9\flat 5}$ \Leftrightarrow D \flat^7/G (G superlocrian) (D \flat lydian dominant)	

5.2 Forward Motion

5.2.1 Resolution

To make good sounding phrases, it is important to resolve chord tones on the strong beats. This resolution is heard better if it is:

- down from a scale tone;
- up from a chromatic tone;
- down a fifth;
- up a fourth.

For instance, resolving A 7alt to Dm 6 can look like that:

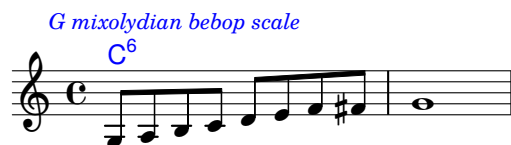
The way to implement these resolutions using arpeggios, scales and their respective patterns, with octave displacement are virtually infinite. For instance:

5.2.2 Bebop scales

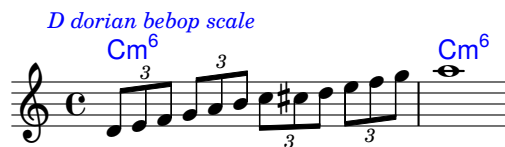
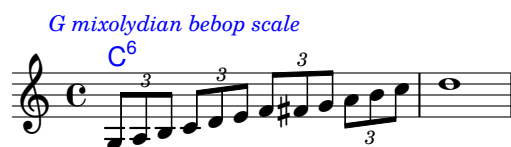
Bebop scales are an easy way to make sure that, when played ascending or descending, we have a chord tone on each strong beat. For heptatonic scales, bebop scales are built by adding a chromatic passing tone:

- On the minor sixth, for major and minor sixth chords;
- On the major seventh, for chords having a minor sevenths.

We note that we can not build a scale for chords with a major sevenths, as there is not room between this tone and the root. We also note that the diminished scale is already synchronized. Played in eight notes, we have the following bebop scales, among many others.



Bebop scales can also be played in triplet. On the guitar, they sound good played three notes per string, with the middle note (the second on each string) on the beat. This way, it gives a natural accent on the up beat, and can accommodate slurring as well as economy picking.



That way, we still get a chord tone on beats one and three.

5.2.3 The most useful Jazz trick

From a practical point of view, it is not always easy to improvise nice phrases across chord changes, as we have to visualize/hear two different chords at once, and target different chord tones. A highly effective shortcut to that problem consists in learning what are the tones of the next chord in the reference frame of the current chord. It gets even simpler if we also realize that the majority of chord changes in Jazz standards are going to a chord a fourth higher (or a fifth lower), such as in a VI II V I IV changes:

Current chord	Next chord
VI ^{7alt}	IIIm ⁷
IIIm ⁷	V ⁷
V ⁷	I ^Δ
I ^Δ	IV ^Δ
II [∅]	V ^{7alt}
V ^{7alt}	Im ⁶
4	1
6m	3m
6	3
7	b5
1	5
2m	#5
2	6
3m	b7
3	7
b5	b9
5	9

In other words, when playing across a IIIm⁷ V⁷ change, thinking about resolving the IIIm⁷ on its sixth can lead to smoother phrases than thinking about the third of the V⁷, although both are the same note (B in C major).

Tritone substitutions are also useful to know:

Current chord	Next chord
bII ⁷	I ^Δ
bII ⁷	Im ⁶
bII ⁷	I ⁷
7	1
2	3m
3m	3
b5	5
6m	6
6	b7
b7	7
2m	9

Backdoor resolution:

Current chord	Next chord
$\flat VII^7$	I^Δ
$\flat VII^7$	Im^6
$\flat VII^7$	I^7
2	1
4	3m
$\flat 5$	3
6	5
7	6
1	$\flat 7$
2m	7
3	9

The difficult transition in Coltrane changes (*Countdown*, *Giant Steps*):

Current chord	Next chord
I^Δ	III^7
3m	1
5	3
$\flat 7$	5
2m	$\flat 7$
4	9

5.3 Common Chord Changes

Comping and improvising through chord changes can be greatly simplified if we work out specific chord patterns that are all over the place in standards. These changes can be practiced in all keys, all tempos and all chord durations (2/4, 3/4, 4/4, etc.).

5.3.1 Two-chord changes

Once we can improvise on one chord, the next step before going to a full 32-bar standard is to develop a vocabulary over two-chord changes. The most useful ones are the following.

Name	First chord	Second chord
Major perfect cadence	V^7	I^Δ
Minor perfect cadence	V^7	I^6
Dominant perfect cadence	V^7	I^7
Major plagal cadence	I^Δ	IV^Δ
Minor plagal cadence	I^6	IV^6
Dominant plagal cadence	I^7	IV^7
Major II V	IIm^7	V^7
Minor II V	II^\emptyset	V^7

5.3.2 II V Is

II V I are the building blocks of Jazz standards. There are a few common substitutions (in the key of C):

Name	II	V	I
Major	Dm^7	G^7	C^Δ
Tritone sub.	$A\flat m^7$	$D\flat^7$	C^Δ
Backdoor	Fm^7	$B\flat^7$	C^Δ
Minor	D^\emptyset	G^7	C^6
Minor w/ tritone sub.	D^\emptyset	$D\flat^7$	C^6

5.3.3 Major and minor tonal cycles

The following are found in many A A B A standards.

Major cycle in C

Chords: F^Δ, B⁰, Em⁷, Am⁷, Dm⁷, G⁷, C^Δ, C⁷

Minor cycle in C

Chords: Fm⁷, B^{b7}, E^{bΔ}, A^{bΔ}, D⁰, G⁷, Cm⁶, C⁷

5.3.4 Major blues

Roots blues in C

Chords: C⁷, F⁷, C⁷, F⁷, C⁷, G⁷, F⁷, C⁷, G⁷

Jazz blues in C

Chords: C⁷, F⁷, C⁷, C⁷ b⁹, F⁷, F^{#07}, C⁷, A⁷ b⁹, Dm⁷, G⁷, C⁷, G⁷

Variations adding II Vs

Chords: C⁷, F⁷, F^{#07}, C⁷, Gm⁷, C⁷, F⁷, F^{#7}, C⁷, Dm⁷, Em⁷, A⁷ b⁹, Dm⁷, G⁷, C⁷, A⁷ b⁹, Dm⁷, G⁷

Variations with tritone substitutions

Chords: C⁷, F⁷, C⁷, F^{#7}, F⁷, F^{#07}, C⁷, E^{b7}, Dm⁷, D^{b7}, C⁷, D^{b7}

5.3.5 Minor blues

Basic grid in C

Chords: Cm, C⁷ b⁹, Fm, Cm, A^{b7}, G⁷, Cm, G⁷

Variation with line-clichés

Chords: Cm, Cm^Δ, Cm⁷, Cm⁶, Cm, Cm^Δ, Cm⁷, C⁷ b⁹, Fm, Fm^Δ, Fm⁷, Fm⁶, Cm, Cm^Δ, Cm⁷, Cm⁶, A^{b7}, G⁷, Cm, D⁰, G⁷ b⁹

5.3.6 Swedish blues

A good II V workout:

5.3.7 Rhythm changes

The structure of rhythm changes is A A B A. Here are a few common variations on the A.

Original A (in C)

Variations on the A (in C)

Original B (in C)

Variations on the B (in C)

5.3.8 Coltrane changes

This is the A of *Countdown*.

5.4 Reharmonization Techniques

Reharmonization is a big deal in Jazz. The following possibilities can be applied to comping and soloing. Some are very smooth sounding, some can be spicy.

5.4.1 Dominant chords

Three musical staves in treble clef, each with a common time signature 'c'. The first staff shows a G7 chord. The second staff shows a G7 chord. The third staff shows a G7 b9 chord.

Four musical staves in treble clef, each with a common time signature 'c'. The first staff shows a Dm7 chord followed by a G7 chord. The second staff shows a D b7 chord. The third staff shows an A b7 chord.

Diminished dominant substitution:

A musical staff in treble clef with common time 'c', showing a G7 chord in the first measure and a C chord in the second measure.

A musical staff in treble clef with common time 'c', showing a G7 b9 13 chord in the first measure and a C chord in the second measure. A blue note above the staff reads: *If the melody is neither A nor E^b*

Superlocrian dominant substitution:

A musical staff in treble clef with common time 'c', showing a G7 chord in the first measure and a C chord in the second measure.

A musical staff in treble clef with common time 'c', showing a G7 b9 b13 chord in the first measure and a C chord in the second measure. A blue note above the staff reads: *If the melody is neither A nor E*

Tritone substitutions:

Three musical staves in treble clef with common time 'c'. The first staff shows an E7 chord followed by a C chord. The second staff shows a D7 chord followed by a Dm7 chord. The third staff shows an E7 chord followed by a C chord.

Three musical staves in treble clef with common time 'c'. The first staff shows a B b7 #11 chord followed by a C chord. The second staff shows a D7 #11 chord followed by a Dm7 chord. The third staff shows a B b7 #11 chord followed by a C chord.

Lydian dominant substitution:

A musical staff in treble clef with common time 'c', showing a D7 chord in the first measure and a Dm7 chord in the second measure.

A musical staff in treble clef with common time 'c', showing a D7 #11 chord in the first measure and a Dm7 chord in the second measure.

Unitonic dominant substitution:

A musical staff in treble clef with common time 'c', showing a G7 chord in the first measure and a C chord in the second measure.

A musical staff in treble clef with common time 'c', showing a G7 #5 chord in the first measure and a C chord in the second measure.

Bluesy static dominant chord:

A musical staff in treble clef with common time 'c', showing a C7 chord.

A musical staff in treble clef with common time 'c', showing a C7 #9 chord.

5.4.2 Minor chords

*Cm*⁷ *F*⁷

*Cm*⁶ *F*⁷

*Cm*⁷ *F*⁷

Cm^Δ *F*⁷

Chromatic Elaboration of Static Harmony (CESH) or *line-cliché*:

*Cm*⁷

Cm *Cm*^Δ *Cm*⁷ *Cm*⁶

*Cm*⁷

Cm *Cm*^{b6} *Cm*⁶ *Cm*⁷

Deceptive cadence:

*Dm*⁷ *G*⁷

*D*⁰ *G*⁷

Tonic minor resolution:

*Dm*⁷ *G*⁷

*D*⁷ *G*⁷

Secondary dominant substitution:

*Dm*⁷ *G*⁷

*D*⁷ *G*⁷

*Am*⁷ *Dm*⁷

*A*⁷ *Dm*⁷

5.4.3 Major chords

C^Δ

*C*⁶

C^Δ

C^{6 9}

C^Δ

If the melody is not F
C^{lyd}

C^Δ

If the melody is E or B
C^{Δ #5}

C^Δ

C^{Δ #5} *C*^Δ

The image displays six musical staves in treble clef, each with a common time signature (C). The first three staves show the C major chord (C Δ) in different positions. The fourth staff shows C Δ #5. The fifth staff shows C⁶. The sixth staff shows D \flat Δ . Below the fifth and sixth staves, there is text: "If the melody is C or G" and "If the melody is F# or B" above B/C.

5.5 Practicing Standards

Here is a non-exhaustive list of some things to practice when working on a tune. Not all are possible. We can not practice the same way a ballad and an up-tempo bebop tune, but all these ideas are worth considering.

5.5.1 Listening

1. Listen to different versions of the tune. Check the differences in tonality, phrasing, harmony, *etc.*
2. Come up with a preferred version (write it up). If this tune will be mainly played in a band, it can be reharmonized and modified. Otherwise, if it is a standard to be played with random people, it should not be far from the *Real Book* version.
3. Listen to the contrast in dynamics and texture between the theme and the solos, and between the A and the B, and try to reproduce it in the following.
4. Prepare a backing track. Try also to play with the record.

5.5.2 Exposing the melody

Single notes. Practice the melody in different areas of the neck and different registers.

1. Adapt the fingering to optimize the phrasing (slurs, slides, *etc.*).
2. Try adding embellishments to the harmony:
 - Appoggiatura and other effects;
 - Tags and pick-ups;
 - Rhythmic variations.
3. If the melody has some space, try out questions and answers:
 - Answer the melody with other melodic phrases;
 - Answer it with chord voicings.

Harmonized melody. It is not always possible to systematically achieve these over the whole tune. However, it might be possible on some particular fragments.

1. Try all possible dyad harmonization:
 - Octave;
 - Thirds;
 - Tenths;
 - Sixths;
 - Fourths;
 - Fifths;
 - Sevenths;
 - Seconds.
2. Also try harmonizing the melody with non-constant intervals:
 - Contrary motions;
 - Pedals.
3. Harmonize the melody in chords without a bass (arbitrary inversions). This harmonized melody is meant to be played with a bass player.
 - In triads (including quartal triads) to highlight the upper structure of the chord.
 - In seventh chords.

Solo chord melody. The following are meant to be played without accompaniment, either as a standalone version of the tune, or as an intro to a band version.

1. Work out a melody with chords and their bass. It does not have to be dense and can be played *rubato*, with embellishments between chords.
2. Work out a melody with a bass line. If possible the bass line can be a walking bass.
3. Work out a full chord melody, like a composed classical piece.

5.5.3 Comping

1. Look for rhythmic patterns matching the vibe of the tune. In doubt, try all possible combinations.
2. Practice all chord forms and inversions on the tune.
3. Explore the sound of different enrichments (9, 11, 13).
4. Try out different reharmonizations.
5. Practice approaching the next chords with:
 - Chromatic movements;
 - Diatonic/diminished movements;
 - Same but with a special treatment for the higher voice (constant or contrary motion; examples in Pierre CULLAZ's book).
6. Play the tune with shell chords, in quarter notes. On fast tempos, change chords every bar. On slower tempos, try moving the chords smoothly to the next. Use diatonic or diminished passing chords.
7. Practice improvising walking bass lines.
8. Practice improvising walking bass lines with chord fragments (Tuck ANDRESS's way).
9. Look for original approaches:
 - Slaps;
 - Pick *vs* fingerstyle;
 - Compose riffs and find chord licks;
 - Use open strings;
 - Try out different sounds (equalization, combination of pick-ups, pedals, *etc.*).

5.5.4 Soloing

1. Listen to other people's solos. Transcribe them if they are particularly great.
 2. If the tune is particularly hard, compose a few solos to break it.
 3. Practice forward motion with scales, arpeggios and pentatonics. Exhaust all the possible resolutions from one chord to another. Also find out the common chord tones. **This is where most of the work is...**
 4. Look for original approaches:
 - Open strings;
 - Pinched harmonics;
 - Use of effect pedals;
 - Exotic scales.
-