

Modal Harmony

The modes have provided fertile musical soil for jazz composers since the late 1950s. In effect, modes can be viewed as displacements of the major scale.

Diatonic seventh chords for each of the modes can be derived, as shown below. Each mode contains a so-called *characteristic note* that helps to distinguish it from major and minor, and from the other modes.

C Dorian	C-7	D-7	E \flat Maj7	F7	G-7	A-7(b5)	B \flat Maj7	Characteristic note
								6
C Phrygian	C-7	D \flat Maj7	E \flat 7	F-7	G-7(b5)	A \flat Maj7	B \flat -7	Characteristic note
								b2
C Lydian	CMaj7	D7	E-7	F#-7(b5)	GMaj7	A-7	B-7	Characteristic note
								#4
C Mixolydian	C7	D-7	E-7(b5)	FMaj7	G-7	A-7	B \flat Maj7	Characteristic note
								b7
C Aeolian	C-7	D-7(b5)	E \flat Maj7	F-7	G-7	A \flat Maj7	B \flat 7	Characteristic note
								b6
C Locrian	C-7(b5)	D \flat Maj7	E \flat -7	F-7	G \flat Maj7	A \flat 7	B \flat -7	Characteristic note
								b5

Most textbook explanations of modal harmony warn you to beware of the diatonic tritone in each mode, lest it pull you into the relative major key. This warning is valuable, but it can be somewhat limiting, especially in jazz composition. Since the characteristic note of each mode is also a note in the diatonic tritone of that mode, it stands to reason that the tritone may actually have a role in helping to establish the sound of that mode.

Play the examples below on the piano and you will see and hear that these voicings, as simple as they are, are potential I chords in D Dorian, E Phrygian, F Lydian, G Mixolydian, A Aeolian, and B Locrian respectively. Note that the respective tritones are given strong support from each modal tonic in the bass clef. This helps anchor the tritone and ensures modal rather than tonal orientation.

D Dorian	E Phrygian	F Lydian	G Mixolydian	A Aeolian	B Locrian

• = characteristic note

The problem with the tritone in modal harmony is not so much the interval itself but the placement of that interval in a voicing in thirds. Voicings in thirds (triads and seventh chords) are so identified with the major and minor modes that their very use promotes tonal rather than modal identity. Bill Evans and Miles Davis must have understood this instinctively at the *Kind of Blue* recording sessions, because Bill Evans makes extensive use of voicings in fourths throughout, especially on “So What.”

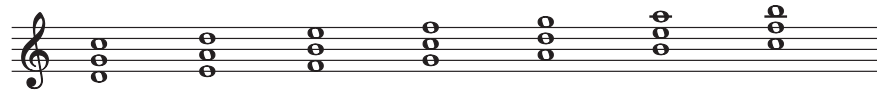
Voicings in fourths have a more ambiguous quality than voicings in thirds. A quartal “triad” (three-note voicing in perfect fourths) doesn’t sound major, minor, augmented, or diminished. In fact, any of the three notes in such a voicing might be the “root” of the chord! This ambiguity has intrigued jazz musicians for more than forty years and is at the heart of the use of these voicings by players and composer/arrangers who hope to sound “modern.”

D Dorian

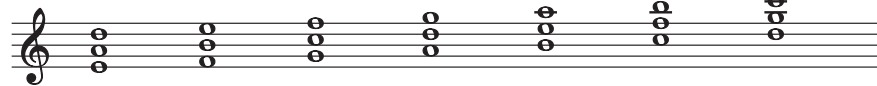
7th chords in 3rds voicing in 4ths (major third on top)

It helps to examine the diatonic chords of each mode using three-part voicings in fourths.

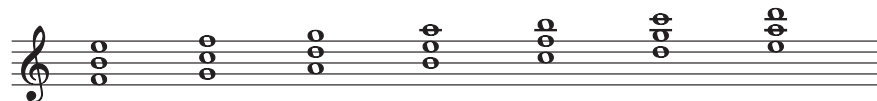
D Dorian



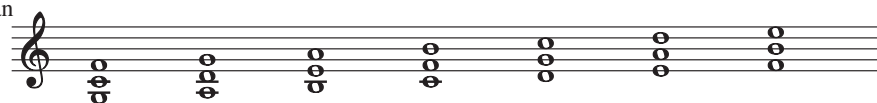
E Phrygian



F Lydian



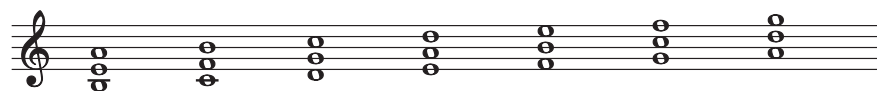
G Mixolydian



A Aeolian



B Locrian



Assigning Roman numerals to these voicings is not particularly helpful because there is no tonic, subdominant, or dominant quality inherent in any of them without a note in the bass. If the modal tonic is added in the bass, most of the voicings will sound “tonic,” while one or two voicings may sound vaguely “non-tonic” or like an approach chord. Then, if a note other than the modal tonic is used in the bass, *all* of these voicings will sound non-tonic.

The most important factor in establishing modal orientation is the frequent use of the modal tonic in the bass. This is essential because the tritone is always lurking and threatening to pull you into the relative major mode. As long as the modal tonic is used persistently in the bass voice, all of the diatonic voicings in fourths from the mode can be used above it in virtually any order to provide harmonic fluidity. The use of other notes from the mode in the bass will suggest non-tonic chords that can be used in cadencing to a modal tonic chord.

D Dorian

The diagram for D Dorian mode shows a treble clef staff with six chords in fourths. The first chord is the tonic, D major (D-F-A), with a '*' above it. The other five chords are non-tonic: D minor (D-F-A^b), D minor 9 (D-F-A^b-C), D minor 11 (D-F-A^b-C-E), D minor 13 (D-F-A^b-C-E-G), D minor 9#11 (D-F-A^b-C-E[#]), and D minor 13#11 (D-F-A^b-C-E[#]-G). The bass clef staff shows a single D note, with an arrow pointing to it from the label 'Non-tonic (any other bass note)'. The label 'Tonic' is placed between the two staves.

E Phrygian

The diagram for E Phrygian mode shows a treble clef staff with six chords in fourths. The first chord is the tonic, E major (E-G-B), with a '*' above it. The other five chords are non-tonic: E minor (E-G-B^b), E minor 9 (E-G-B^b-A), E minor 11 (E-G-B^b-A-C), E minor 13 (E-G-B^b-A-C-D), E minor 9#11 (E-G-B^b-A-C[#]), and E minor 13#11 (E-G-B^b-A-C[#]-D). The bass clef staff shows a single E note, with an arrow pointing to it from the label 'Non-tonic (any other bass note)'. The label 'Tonic' is placed between the two staves.

F Lydian

The diagram for F Lydian mode shows a treble clef staff with six chords in fourths. The first chord is the tonic, F major (F-A-C), with a '*' above it. The other five chords are non-tonic: F minor (F-A-C^b), F minor 9 (F-A-C^b-E), F minor 11 (F-A-C^b-E-G), F minor 13 (F-A-C^b-E-G-B), F minor 9#11 (F-A-C^b-E-G[#]), and F minor 13#11 (F-A-C^b-E-G[#]-B). The bass clef staff shows a single F note, with an arrow pointing to it from the label 'Non-tonic (any other bass note)'. The label 'Tonic' is placed between the two staves.

*Another nice thing about using modal voicings in fourths is that each will contain at least one tension of the mode (9, ^b9, 11, [#]11, 13, ^b13).

G Mixolydian

A Aeolian

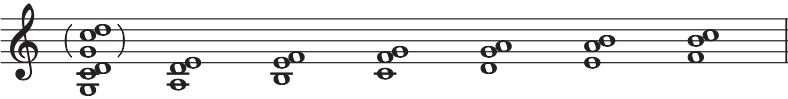
B Locrian

Inverted Voicings in Fourths

Voicings in fourths and their inversions have been used extensively in modal situations by jazz pianists, composers, and arrangers since the early 1960s. A three-part voicing in fourths can be inverted by shifting the bottom note up an octave twice in succession. This results in two new positions of the voicing, which contain the same three notes but in a different intervallic order. Instead of two adjacent fourths, the first inversion contains a fourth on the bottom and a second on top. The second inversion contains a second on the bottom and a fourth on top. (A voicing in thirds has been avoided once again!) The chart on the next page demonstrates inversions of voicings in fourths in D Dorian, E Phrygian, and G Mixolydian.

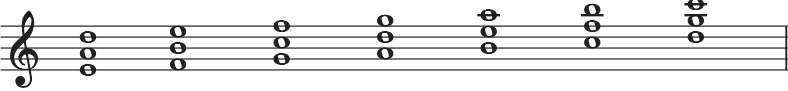
D Dorian


Voicings in fourths 

1st inversion 

2nd inversion 

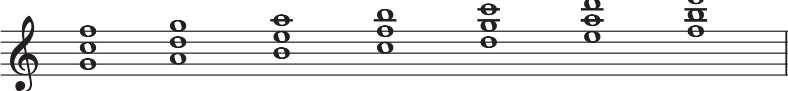
E Phrygian

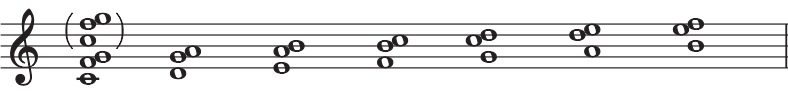
Voicings in fourths 

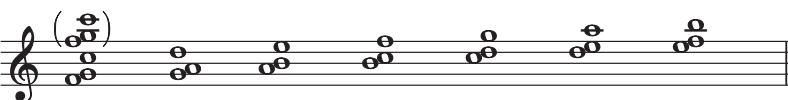
1st inversion 

2nd inversion 

G Mixolydian

Voicings in fourths 

1st inversion 

2nd inversion 

Modal Approach Chords

Chromatic and parallel approach chords are very useful in modal situations, provided they are used only to embellish diatonic chords and not to supplant them. The charts on the next two pages demonstrate how chromatic (“ch”) and parallel (“para”) approach techniques produce upper and lower neighbor chords that are respectively a half step or a whole step above or below their modal target chords. Double chromatic (“dc”) approach is also possible if the parallel approach chord moves first to the chromatic approach chord (as indicated by the horizontal arrows). These approach chords, rather than the secondary dominants of tonal harmony, produce the harmonic universe of the modes in jazz.

As you study the following Harmonic Universe charts, notice that some of the parallel approach chords (“para”) are identical to diatonic chords from the mode. These diatonic approach chords help reinforce the mode when used appropriately. On the charts, these “para” chords are checked and labeled in **bold type**.

Harmonic Universe in D Dorian

Approach from above

para ch para ch para ch **para** ch **para** ch para ch para ch para ch

Target chords

Approach from below

para ch **para** ch para ch para ch **para** ch **para** ch para ch

Suggested cadential patterns in the bass are:

5 to 1 2 to 1 $\flat 7$ to 1 4 to 1

Harmonic Universe in E Phrygian

Approach from above

para ch para ch para ch para ch para ch para ch para ch

A musical staff in treble clef showing a sequence of 14 chords. The chords are: E7 (para), D7b9 (ch), E7#9 (para), D7b9 (ch), E7 (para), D7b9 (ch), E7#9 (para), D7b9 (ch), E7 (para), D7b9 (ch), E7#9 (para), D7b9 (ch), E7 (para), and D7b9 (ch). Checkmarks are placed above the 'para' chords. Arrows labeled 'dc' point from the 'para' chords to the 'ch' chords.

Target chords

A musical staff in treble clef showing the target chords for the progression above: E7, D7b9, E7#9, D7b9, E7, D7b9, E7#9, D7b9, E7, D7b9, E7#9, D7b9, E7, and D7b9.

Approach from below

para ch para ch para ch para ch para ch para ch para ch

A musical staff in treble clef showing a sequence of 14 chords. The chords are: E7 (para), D7b9 (ch), E7#9 (para), D7b9 (ch), E7 (para), D7b9 (ch), E7#9 (para), D7b9 (ch), E7 (para), D7b9 (ch), E7#9 (para), D7b9 (ch), E7 (para), and D7b9 (ch). Checkmarks are placed above the 'para' chords. Arrows labeled 'dc' point from the 'ch' chords to the 'para' chords.

para ch para ch para ch para ch para ch para ch para ch

Suggested cadential patterns in the bass are:

A bass staff showing four cadential patterns: b2 to 1, b7 to 1, 5 to 1, and 4 to 1.

Harmonic Universe in G Mixolydian

Approach from above

para ch para ch para ch para ch para ch para ch para ch

A musical staff in treble clef showing a sequence of 14 chords. The chords are: G7 (para), F7b9 (ch), G7#9 (para), F7b9 (ch), G7 (para), F7b9 (ch), G7#9 (para), F7b9 (ch), G7 (para), F7b9 (ch), G7#9 (para), F7b9 (ch), G7 (para), and F7b9 (ch). Checkmarks are placed above the 'para' chords. Arrows labeled 'dc' point from the 'para' chords to the 'ch' chords.

Target chords

A musical staff in treble clef showing the target chords for the progression above: G7, F7b9, G7#9, F7b9, G7, F7b9, G7#9, F7b9, G7, F7b9, G7#9, F7b9, G7, and F7b9.

Approach from below

para ch para ch para ch para ch para ch para ch para ch

A musical staff in treble clef showing a sequence of 14 chords. The chords are: G7 (para), F7b9 (ch), G7#9 (para), F7b9 (ch), G7 (para), F7b9 (ch), G7#9 (para), F7b9 (ch), G7 (para), F7b9 (ch), G7#9 (para), F7b9 (ch), G7 (para), and F7b9 (ch). Checkmarks are placed above the 'para' chords. Arrows labeled 'dc' point from the 'ch' chords to the 'para' chords.

para ch para ch para ch para ch para ch para ch para ch

Suggested cadential patterns in the bass are:

A bass staff showing four cadential patterns: 5 to 1, b7 to 1, 2 to 1, and 4 to 1.