

Arranged in order of brightness:

1.	2.	3.	4.	5.	6.	7.
LYDIAN	IONIAN	MIXOLYDIAN	DORIAN	AEOLIAN	PHRYGIAN	LOCRIAN

Arranged in order of brightness:

- |                |  |
|----------------|--|
| 1. Lydian:     | #4   |
| 2. Ionian:     | 0  |
| 3. Mixolydian: | b7   |
| 4. Dorian:     | b7, b3, (b3, b7)                           |
| 5. Aeolian:    | b7, b3, b6 (b3, b6, b7)                    |
| 6. Phrygian:   | b7, b3, b6, b2<br>(b2, b3, b6, b7)         |
| 7. Locrian:    | b7, b3, b6, b2, b5<br>(b2, b3, b5, b6, b7) |

C Ionian

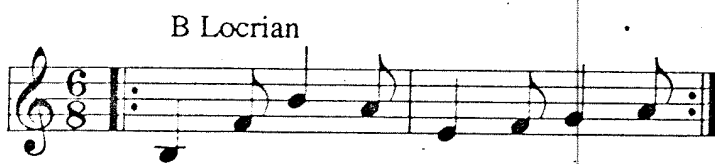
D Dorian

E Phrygian

F Lydian

Can be arpeggiated for interest.





## **Modes; Chord-Scales: I**

Modes and chord-scales are extremely important. I think any serious improvising guitarist would be wise to become as familiar as possible with them. Although it's true that many fine players are not especially knowledgeable about modes, this is definitely the exception, not the rule. (And it's going to become more so as time goes on.) However, I might also point out that there are many guitarists who know a lot about modes and still don't play very well. So let's not start to equate modal knowledge with playing ability or musicality. Let's just say that modes are real important.

Modes provide an excellent overview of melodic and harmonic possibilities. (Modal thinking is both melodic and harmonic simultaneously: G7 alt. is equally a scale with infinite melodic possibilities as well as a chord-type with vast harmonic possibilities.) Keep in mind that all of this amounts to a lifelong study. There is no end to how much you could learn about modes and their implications.

It seems that the kind of problems that many guitarists have with modes are twofold. First of all, the very nature of modes includes so much within it that the overview aspect can sometimes lead to confusion instead of clarification (not seeing the trees for the forest). Secondly, the complicated nature of the guitar tends to lend itself to very incomplete understanding, laden with gaps. I think these problems can be overcome and/or worked through by an intelligent and thorough approach to both learning the materials and learning the instrument.

Modal Vamp [from F Major scale]

4/4 [even 1/8th]

|| A phrygian | Bb lydian | A phrygian | G dorian | A phry. | Bb lyd. | Bb F | C7 ||

|| " | " | " | " | " | " | " | " ||

|| Edim. Bb | F C | G- D- | A- Edim. | Edim. A- | D- G- | C F | Bb Edim. ||

|| A phrygian | Bb lydian | A phrygian | G dorian | A phry. | Bb lyd. | Bb F | C7 ||

|| F Ionian | F  || Daeolian 16 bars ----- || Edim. | Edim. ||

|| A phrygian | Bb lydian | A phrygian | G dorian | A phry. | Bb lyd. | Bb F | C7 ||

|| F Ionian | F  ||



play twice!

Handwritten musical notation on three staves. The first two staves contain a melodic line with eighth and sixteenth notes. The third staff contains a bass line with chords and eighth notes.

Handwritten musical notation on a single staff with a treble clef, featuring a melodic line and a bass line with chords.

Handwritten musical notation on a single staff with a treble clef, featuring a melodic line and a bass line with chords.

Handwritten musical notation on a single staff with a treble clef, featuring a melodic line and a bass line with chords. A section is enclosed in a large bracket with the text "optional for repeat" written above it.

28

Five empty musical staves.

## To Do:

- Experiment with all possible scales, modes and arpeggios using the entire fingerboard.
- Improvise on Vamps, Standard Tunes, Blues, and Rhythm Changes using the entire fingerboard.

## The Straight Path

Improvise on modes of C major scale using the entire fingerboard.

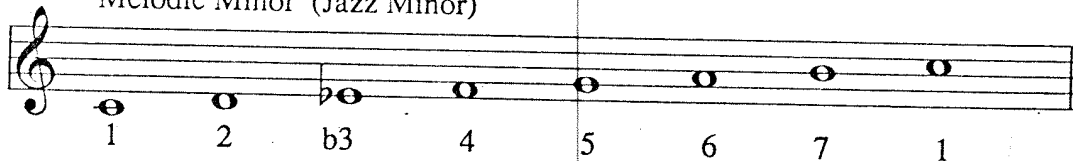
## The Approach: Take 2, Take 3

We've taken the C major scale and its modes all the way through "The Approach." Now, go back to the beginning and go through the same procedures using the **C melodic minor** scale and its modes. (You'll probably want to use "the Straight Path" sections.) When you've completed that, start back at the beginning again, but this (third) time, use the **C harmonic minor** scale and its modes. (Work *especially* on the modes built on I, IV, V, VI.)

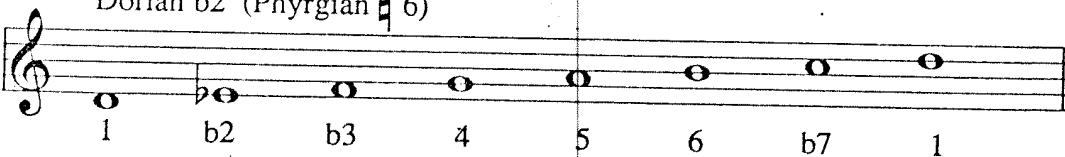
- It's absolutely amazing what happens when you change one note in a major scale. (E changes to Eb for melodic minor.)
- It's also absolutely amazing what happens when you change one note in a melodic minor scale. (A changes to Ab for harmonic minor.)
- You might also work with other seven-note scales. For example, C D E F G Ab B C or C Db E F G Ab B C.
- Sheets on C melodic minor and C harmonic minor follow:

## Melodic Minor Modes

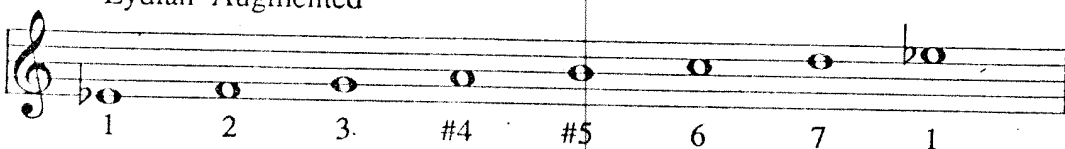
### Melodic Minor (Jazz Minor)



### Dorian b2 (Phrygian b6)



### Lydian Augmented



Lydian b7 (Overtone Scale)

2 3 #4 5 6 b7 1

Aolian Major (Mixolydian b6)

2 3 4 5 b6 b7 1

Locrian #2

2 b3 4 b5 b6 b7 1

Altered Dominant (Super Locrian)

b2 b3 b4 b5 b6 b7 1  
b9 #9 3 b5 #5 b7 1

Modal Minor Vamps

Melodic Minor

Phrygian #6

Lydian Augmented

1. 2.

Lydian b7

Ex. 1

Ex. 2

Musical notation for Lydian b7. Ex. 1 is in 5/4 time, featuring a melodic line with a flat 7th and a chromatic descending line. Ex. 2 is in 4/4 time, showing a similar melodic pattern with a flat 7th.

Aeolian Major

Musical notation for Aeolian Major in 4/4 time, showing a melodic line with a natural 7th and a chromatic descending line.

Musical notation for Aeolian Major (continued) in 6/8 time, featuring a melodic line with a natural 7th and a chromatic descending line.

Musical notation for Aeolian Major (continued) in 4/4 time, featuring a melodic line with a natural 7th and a chromatic descending line.

Altered Dominant

B7 Alt.

Musical notation for Altered Dominant B7 Alt. in 4/4 time, featuring a melodic line with a natural 7th and a chromatic descending line.

E-

Musical notation for E- in 4/4 time, featuring a melodic line with a natural 7th and a chromatic descending line.



Event 8<sup>n</sup>  
♩ = 110

# Melodic Minor Vamp with 3 Tonic System

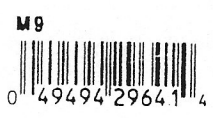
1.

2.

① G mel. min F#7 alt. | B mel. min. Bb7 alt. | Eb mel. min. D7 alt.  
 - 6 - - 2 - | - 6 - - 2 - | - 6 - - 2 -

② G mel. min. F#7 alt. | B mel. min. Bb7 alt. | Eb mel. min. D7 alt.  
 - 6 - - 2 - | - 6 - - 2 - | - 6 - - 2 -

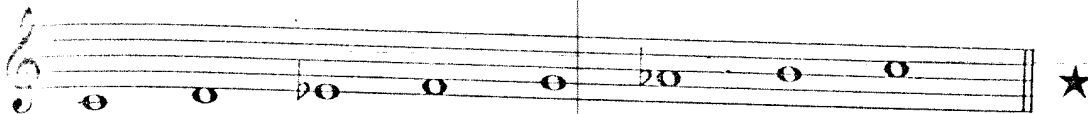
LOOP 68.



# Harmonic Minor Modes

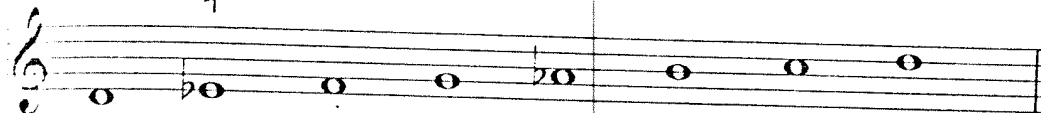
★ = useful modes      (★) = slightly less important but still useful

## Harmonic Minor



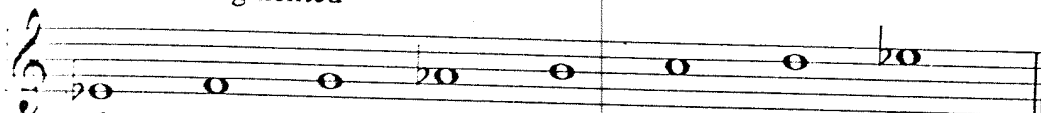
1 2 b3 4 5 b6 7 1 ★

## Locrian $\flat$ 6



1  $\flat$ 2  $\flat$ 3 4  $\flat$ 5 6  $\flat$ 7 1

## Ionian Augmented



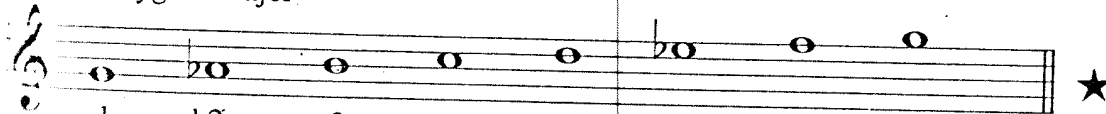
1 2 3 4 #5 6 7 1

## Dorian #4 (Overtone Minor)



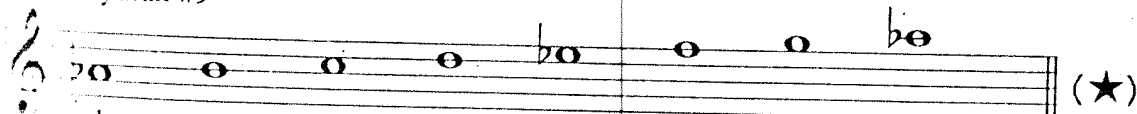
1 2  $\flat$ 3 #4 5 6  $\flat$ 7 1 (★)

## Phrygian Major



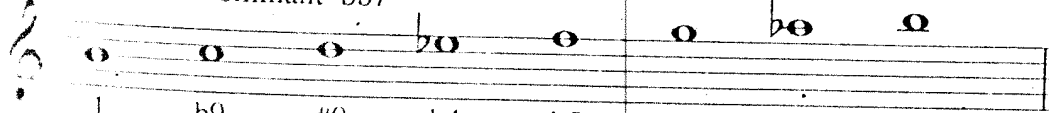
1  $\flat$ 2 3 4 5  $\flat$ 6 7 1 ★

## Lydian #9



1 #9 3 #4 5 6 7 1 (★)

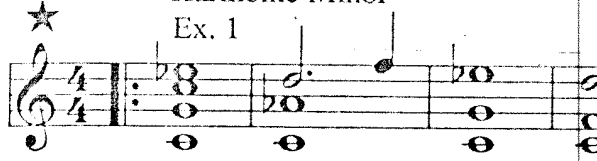
## Altered Dominant $\flat\flat$ 7



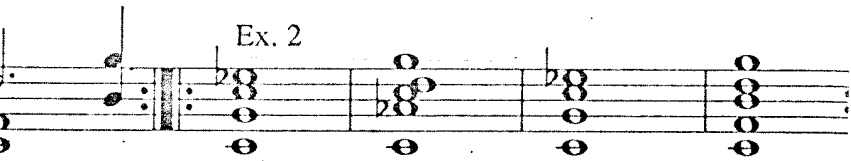
1  $\flat$ 9 #9  $\flat$ 4  $\flat$ 5 #5  $\flat\flat$ 7 1  
#3 #11  $\flat$ 13

# Harmonic Minor Vamps

★ Harmonic Minor  
Ex. 1




Ex. 2



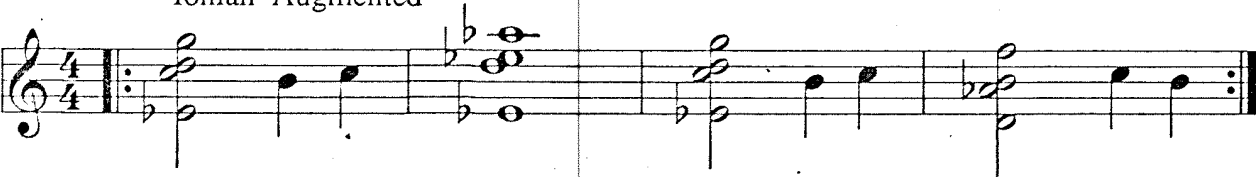
Two musical examples in 4/4 time. Ex. 1 shows a melodic line with a star above it, starting on D4 and moving through E4, F4, G4, A4, B4, C5, and D5. Ex. 2 shows a chordal vamp with a D4 bass note and chords of Dm7, Dm7(b9), Dm7(b9), and Dm7(b9).

6th=D Locrian  $\frac{3}{4}$  6




A melodic line in 3/4 time starting on D4, with a star above it. The notes are D4, E4, F4, G4, A4, B4, C5, and D5. Chords are indicated below the staff: Dm7, Dm7(b9), Dm7(b9), and Dm7(b9).

Ionian Augmented




A melodic line in 4/4 time starting on D4, with a star above it. The notes are D4, E4, F4, G4, A4, B4, C5, and D5. Chords are indicated below the staff: Dm7, Dm7(b9), Dm7(b9), and Dm7(b9).

(★) Dorian #4 (Overtone Minor)  
Ex. 1

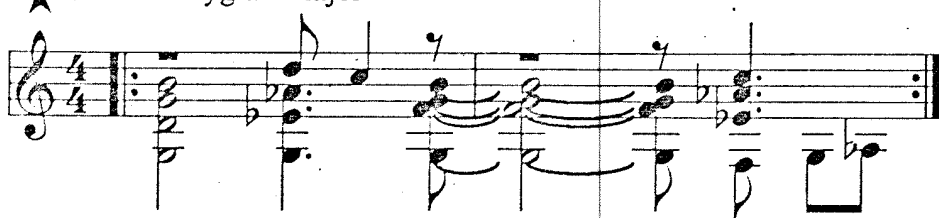


Ex. 2



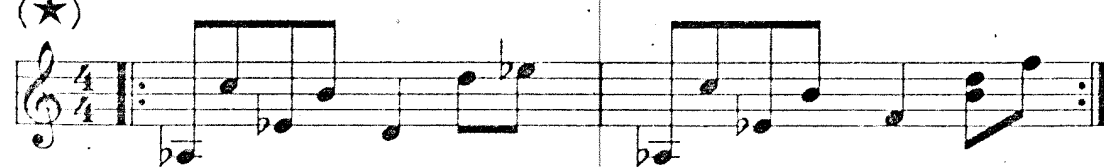
Two musical examples in 6/4 time. Ex. 1 shows a melodic line with a star above it, starting on D4 and moving through E4, F4, G4, A4, B4, C5, and D5. Ex. 2 shows a melodic line with a star above it, starting on D4 and moving through E4, F4, G4, A4, B4, C5, and D5. Both examples include triplets.

★ Phrygian Major



A melodic line in 4/4 time starting on D4, with a star above it. The notes are D4, E4, F4, G4, A4, B4, C5, and D5. Chords are indicated below the staff: Dm7, Dm7(b9), Dm7(b9), and Dm7(b9).

(★) Lydian #9



A melodic line in 4/4 time starting on D4, with a star above it. The notes are D4, E4, F4, G4, A4, B4, C5, and D5. Chords are indicated below the staff: Dm7, Dm7(b9), Dm7(b9), and Dm7(b9).

### Altered Dominant bb7



### What Next?

At this point, I think it makes sense to mention something. Our approach has been primarily derivative so far. (The modes were *derived* from C major scale, C melodic minor, C harmonic minor, etc.) It would be a good idea to go through the same material again, but this time, approaching it in a parallel fashion. That means: all the modes from the same root. You might choose to pick C as the root since you probably know that key fairly well by now. Personally, I think it might be even better to pick either E or A. These notes are the two lowest open strings. The idea here is that it would be very convenient to have a low, open-string root in going through the parallel approach. This is particularly true of harmonic material, since you'll have either four or five of the higher strings to play the voicings, as well as the low, open-string root to sound against any voicing you want. That might come in very handy.

E Ionian	E Dorian b2	E Phrygian major
E Dorian	E Lydian augmented	E Lydian #2
E Phrygian	E Lydian b7	E whole tone
E Lydian	E Aeolian major	E pentatonic (chinese) 1 2 3 5 6
E Mixolydian	E Locrian #2	E pentatonic (japanese) 1 2 b3 5 6
E Aeolian	E altered dominant bb7	E sym. diminished whole step, half step
E Locrian	E harmonic minor	E sym. diminished (dom.) half step, whole step
E melodic minor	E Dorian #4	

### Examples:

- 1 Play the melody to "Happy Birthday" in E Ionian. Transpose it to the other 17 7-note modes.
- 2 Write a simple melody in E Ionian that uses all the notes (seven) at least twice each. Transpose to the 17 other seven-note modes.
- 3 Go back to playing up and down a single string, using all the material, then play the other five strings. Then five sets of two adjacent strings. Then all the above material in open position. Then in one position. Then take a break!
- 4 Explore counterpoint and harmonic material from all above modes and scales for at least 20 years.



## Majoring In Harmonic Minor

BY MICK GOODRICK

**H**ERE'S A 24-bar vamp that features harmonic minor modes. The first 12 bars involve two Lydian #2 modes (Lydian #2 is the sixth mode of the harmonic minor scale). The eight-bar bridge includes a Dorian #4 mode (fourth mode of harmonic minor) as well as a Phrygian major (fifth mode of harmonic minor).

Record the vamp many times on your 4-track. Then solo against the vamp using the appropriate harmonic minor scales. You'll probably find this a bit tricky at first. These modes have a rather exotic sound and take some time to hear, but you'll find the time well spent, because you'll eventually be able to introduce the harmonic minor scale's

distinctive flavor in places most guitarists wouldn't think it would be available: major and minor 7th chords. Pass the baba ghan-nouj!



Mick Goodrick teaches at the New England Conservatory and is the author of *The Advancing Guitarist* (Hal Leonard). His new album, *Biorhythms*, is on CMP (155 W. 72nd St. Suite 704, New York, NY 10023).

1  $A\flat$ maj7#9#11 (C harmonic minor)

5 Emaj7#9#11 ( $A\flat$  harmonic minor)

9 Em9#11#13 (B harmonic minor)

13  $A7_9$ 13 (D harmonic minor)



# Thinking Guitarist

## Exploring The Harmonic Major Scale

BY MICK GOODRICK

As promised last time, here's a more detailed look at the harmonic major scale. This analysis includes the scale's modes, triads, 7th chords, and triad-over-bass-note structures. The modal vamps that follow the analysis involve only the first five modes; the other two just don't seem to work

as well. However, that's just my subjective opinion. If you want to check them out, by all means do so!

Once you can play the vamps more or less as written, feel free to experiment with them, changing the rhythms and so forth. You can even add more notes; just make certain that

you use only notes from the mode. (Remember, the white notes should be sustained. Then record the vamps on your multitrack and start soloing against them. I think you'll find some very interesting melodic and harmonic material.



Mick Goodrick teaches at the New England Conservatory and is the author of *The Advancing Guitarist* (Hal Leonard). His latest album, *Biochythms*, is on CMP 122 W. 72nd St. Suite 704, New York, NY 10023.

Harmonic Major (Ionian  $\flat 6$ )      Dorian  $\flat 5$       Altered  $\sharp 5$  (Phrygian  $\flat 4$ )      Melodic Minor  $\sharp 4$  (Lydian Minor)

Mixolydian  $\flat 2$       Lydian Augmented  $\sharp 2$       Locrian  $\flat \flat 7$

Triads: C    Ddim    Em    Fm    G    A $\flat$ aug    Bdim      Seventh chords: Cmaj7    Dm7 $\flat 5$     Em7    Fm/maj7    G7    A $\flat$ maj7+5    Bdim7

2 maj., 2 min., 2 dim., 1 aug.      7 different structures

Triads over bass notes: Ddim/C    Em/D    Fm/E    G/F    A $\flat$ aug/G    Bdim/A $\flat$     C/B    Ddim/C  
 G/C    A $\flat$ aug/D    Bdim/E    C/F    Ddim/G    Em/A $\flat$     Fm/B    G/C  
 Bdim/C    C/D    Ddim/E    Em/F    Fm/G    G/A $\flat$     A $\flat$ aug/B    Bdim/C

Vamps

C Harmonic Major (Ionian  $\flat 6$ )

D Dorian  $\flat 5$

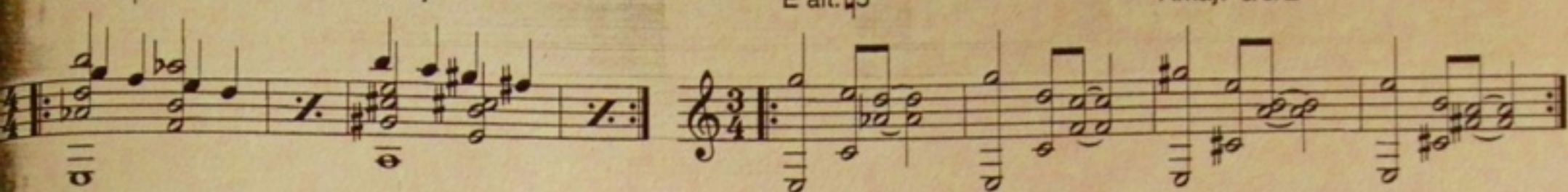


E alt.  $\sharp 5$

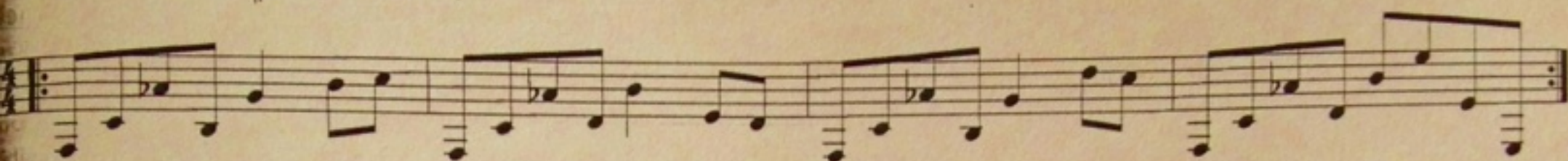
Amaj7

E alt.  $\sharp 5$

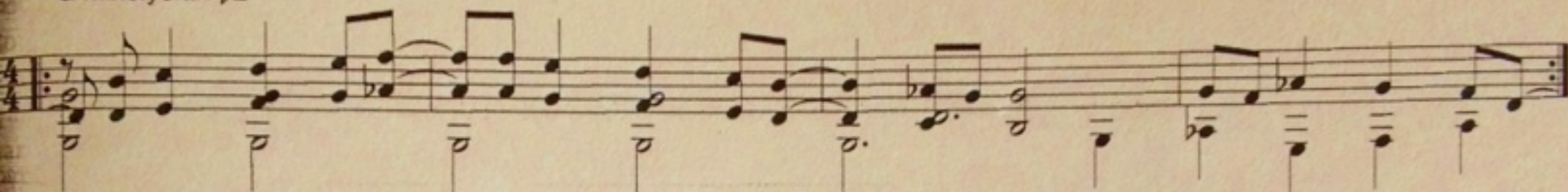
Amaj7 6/9/E



F Melodic Minor  $\sharp 4$  (Lydian Minor)

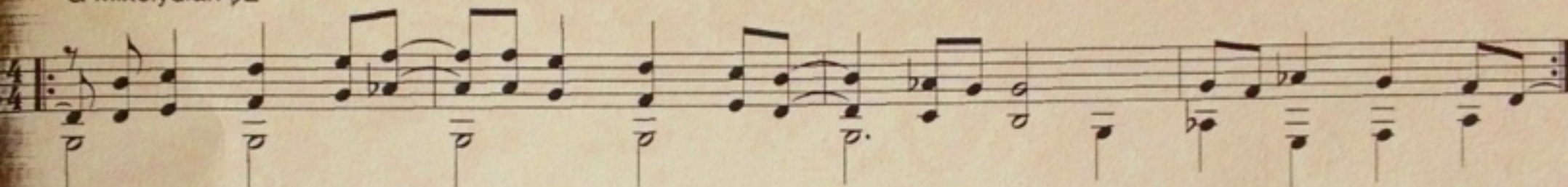


G Mixolydian  $\flat 2$



ified version

G Mixolydian  $\flat 2$



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# Thinking Guitarist

## The Harmonic Major Scale

BY MICK GOODRICK

The easiest way to think of the harmonic major scale is to simply lower the 6th degree of a major scale: C, D, E, F, G, A $\flat$ , B, C=1, 2, 3, 4, 5,  $\flat$ 6, 7, 1. The lowered 6th tends to make the sound of the scale a bit "darker" (that is, lowering the 6th of a C major scale yields F harmonic minor—we'll do a much more in-depth analysis next time). The harmonic major scale and some of its modes can be very useful in

dealing with certain chords that are difficult to solo against—the E $\flat$ /E in measure 5, for example. You'll also have new choices for certain chords that can be handled with the more conventional scales and modes, so start working with it on your own.

The notation of the background vamp looks a bit odd. The idea is to sustain as many notes as possible after each is attacked. The notes that are filled in with

black don't have to be sustained. I think the piece works best at a slower tempo. That way, you'll have more time in each measure to explore soloing with the suggested scales and modes. Enjoy!



Mick Goodrick teaches at the New England Conservatory and is the author of *The Advancing Guitarist* (Hal Leonard). His latest album, *Biohythms*, is on CMP 155 W. 72nd St. Suite 704, New York, NY 10023.

The musical score is written in treble clef with a key signature of one flat (B $\flat$ ). It consists of 23 measures, divided into four systems of five measures each, with a coda in the fifth system. Each measure contains a chord and a scale/mode name. The notes are written in a style where the attack of each note is indicated by a diagonal line, and the sustain is indicated by a horizontal line. Some notes are filled with black, indicating they do not need to be sustained.

System 1 (Measures 1-5):  
 1. Em9  
 2. (D melodic minor)  
 3. (G melodic minor)  
 4. Eadd9  
 5. E $\flat$ m/Em

System 2 (Measures 6-10):  
 6. (C lydian)  
 7. (E melodic minor)  
 8. (A harmonic minor)  
 9. Am7  
 10. Am/G

System 3 (Measures 11-15):  
 11. (D lydian  $\flat$ 7)  
 12. (G harmonic major)  
 13. Gmaj9  
 14. Cmaj9  
 15. E7( $\flat$ 9)

System 4 (Measures 16-19):  
 16. Fmaj7  
 17. E7( $\flat$ 9)  
 18. G13 $\flat$ 9  
 19. Cmaj7

System 5 (Measures 20-23):  
 20. (F $\sharp$  lydian  $\flat$ 7)  
 21. (A harmonic minor)  
 22. (F lydian  $\flat$ 7)  
 23. Coda: Em7, Edim7, Fmaj7/E, B7( $\flat$ 9)/E

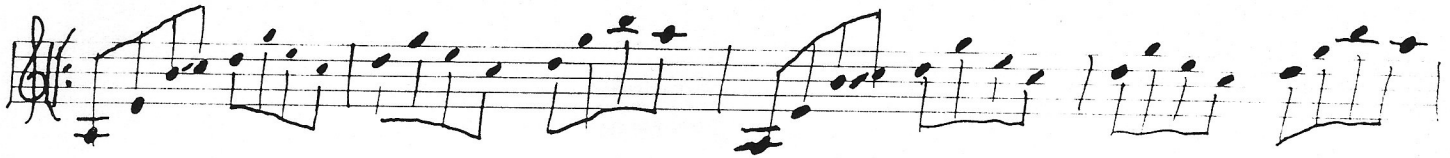
Annotations: "repeat entire form, then play coda" above measure 19; "repeat and fade" above measure 23.





EVEN  $\frac{6}{8}$   
 $\text{♩} \approx 120$

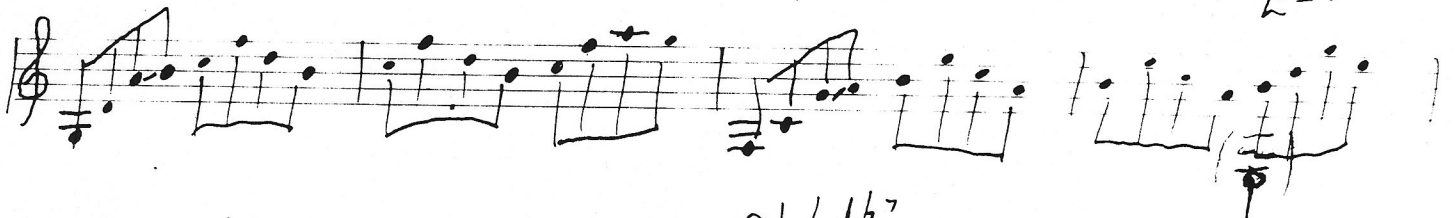
A-7



G<sup>7</sup>

F<sup>M</sup>7

E-7



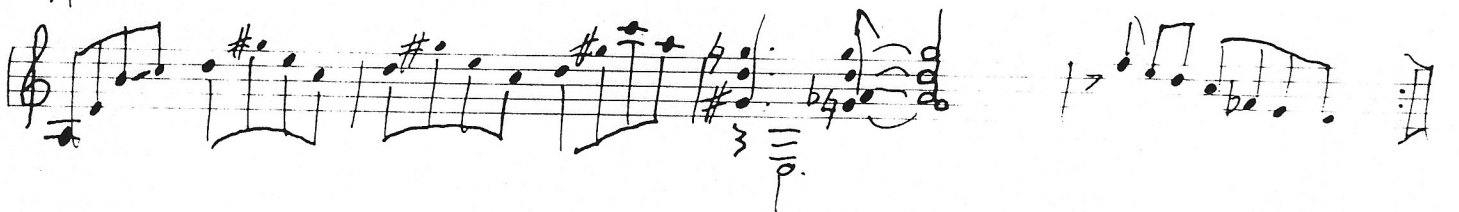
A-7

B<sup>b</sup> lyd. b<sup>7</sup>



A-M<sup>7</sup>

E<sup>7</sup> #9 \*



\* E<sup>7</sup> #9 use E altered 4 5

(C Harmonic Major)

C D E F G A<sup>b</sup> B C  
 1 2 3 4 5 6 7 1