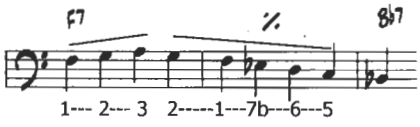
Walk with me

In the third part of our series, **Mauro Battisti** explores scalar walking bass, chord-scale relationships and chord functions

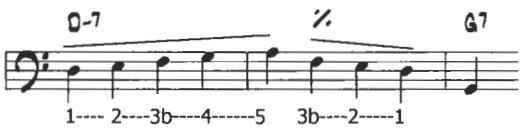
In walking bass, scalar movement is based on a step-wise progression according to the chord-related scale. Like chordal movement, scalar fragments (containing at least three consecutive notes of the scale) move around the notes of the triad (the first, third and fifth), which underline the strong beats, for the most part, and in particular the passage to the next chord. The following examples show some typical ascending and descending scalar movements:

Arvell Shaw



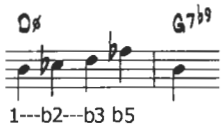
V mode of B♭ major scale
F mixolydian

Rufus Reid



II mode of C major scale
D dorian

Charlie Haden



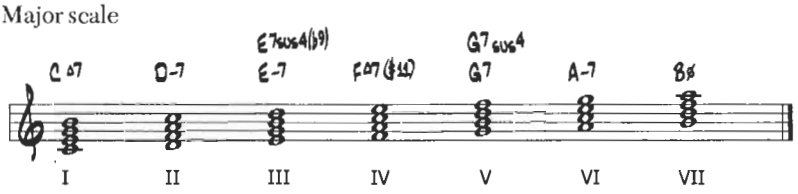
II mode of C harmonic minor scale

How does the scale relate to the chord? Scalar movement in walking bass represents in general the horizontal development of the chord. A chord (with all its extensions) played horizontally produces a scale, and this scale is the most obvious way to highlight the chord. For example, if we play C13♯11 we have: C (1), E (3), G (5), B♭ (♭7) D (9), F♯ (♯11) A (13). If we play the same chord horizontally, we have a G melodic minor scale from C (IV mode of G melodic minor): C (1), D (2), E (3), F♯ (♯4), G (5), A (6), B♭ (♭7). G melodic minor is the scale related to C13♯11 and can be used for naturally underlining the chord.

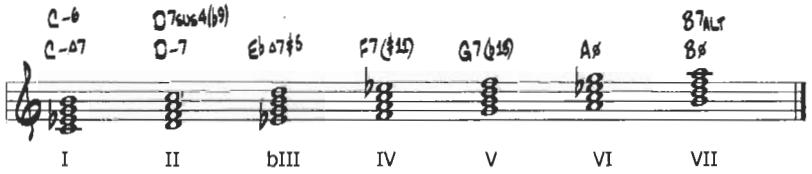
Scalar and chordal movement are both derived from the same group of notes, but for walking bass players (like any other improviser) it is essential to use both perspectives. This leads us to the important principle of the scale-chord relationship. A chord triad can be built on every degree of a scale, using the notes of that scale exclusively. These chords are all naturally related to the scale from which they were derived, and consequently they can be underlined by that scale. Moreover, each chord built on the scale has its own function in relation to the tonic chord (built on the first degree of the scale). It is as if the chords were planets of the same solar system (the key), with each of them being more or less attracted to the sun (the tonic chord).

The next example shows the most common chords used in classical and modern music [*see also chord chart in the previous issue*]. These originated from the three principal diatonic scales in Western harmony: major scale, ascending melodic minor scale (also called jazz melodic minor or real melodic minor), and harmonic minor scale. Some important extensions are indicated in brackets, and alternative chords related to that particular degree of the scale are written above. Note that alternative chords are also formed exclusively by notes that belong to the scale.

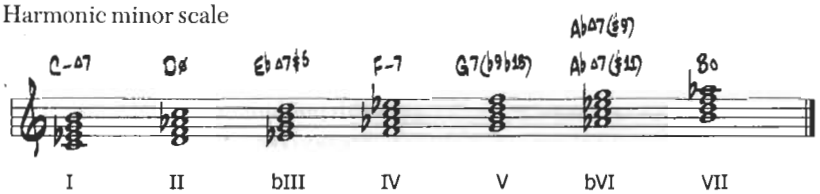
Major scale



Melodic minor scale (ascending)

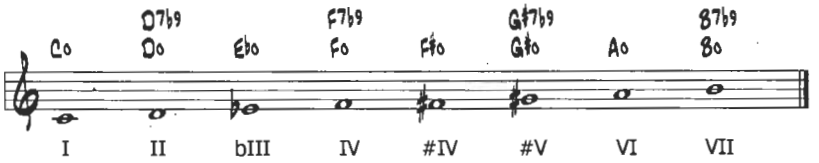


Harmonic minor scale

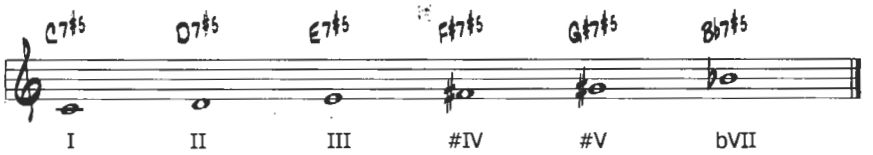


These three scales are the most commonly used in walking bass. Also frequently used are diminished and whole tone scales, both of which provide important melodic solutions as well. The diminished (eight-note) and whole tone (six-note) scales are considered 'symmetrical', due to their regular interval pattern, and they produce the same type of chord on each degree:

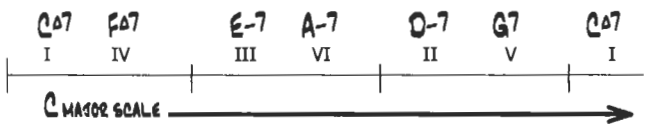
Diminished scale (alternative chords written above)



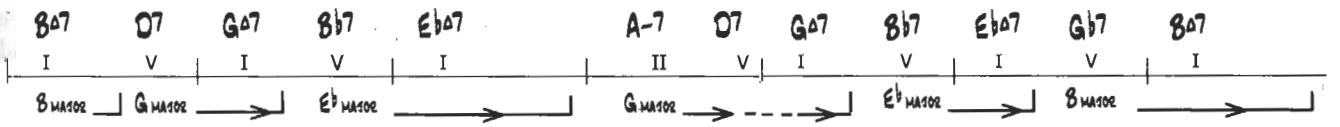
Whole tone scale



If you study the relationship between scales and chords thoroughly, you will be more conscious about the right scale choice for your own walking-bass line. The principle of chord-scale relationship and the concept of the 'key' (solar system) reminds us that in walking bass (and jazz improvisation in general) chords are not considered as isolated elements, but they are like a continuum of colours on which the musical dialogue takes place. Each chord also has its own function according to its position within the harmonic structure, for example:



The chord sequence above, taken from the opening of the song *My Romance*, is a typical example of a series of chords that originate from the same scale. Looking at the first bars of this tune, you will find that there is just one scale that embraces the different chords: the C major scale. Another example is taken from *Giant Steps* by John Coltrane:

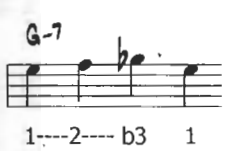


Here you can observe how different chords belong to the same key and consequently share the same scale. This kind of analysis helps to connect chords and to create a more coherent walking-bass line.

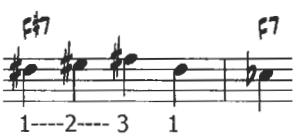
To clarify the harmonic path, it is sometimes easier to think in terms of modes to distinguish the chords' related scales. Modes, generally related to the three main scales (major, melodic minor and harmonic minor), are the different scales starting on each of the seven degrees of the respective main scale (*see box on p.22 for the seven modes of a major and a melodic minor scale*). The seven modes are the same scale seen from seven different points of view.

The concept of modes led to the establishment of a better relationship between the chords of a scale according to their function in the harmonic hierarchy. In the first bars of *My Romance*, the tonal centre is C major and each chord corresponds to a different degree within that same tonal system. To build your own scalar bass line for the opening of *My Romance* you could think in terms of: C major starting from C (ionian mode); then from F (lydian mode); from E (phrygian mode); from A (aeolian mode); from D (dorian mode); from G (mixolydian mode); and from C (ionian mode).

The walking-bass line played by Oscar Pettiford on Ellington's classic *It Don't Mean A Thing* (*see p.23*) shows a beautiful balance between the three melodic movements – chordal, scalar and chromatic. Let's focus on Pettiford's use of simple but effective scalar fragments. In this walking-bass line, he often uses the first degrees of the chord-related scale going back to the root, 1-2-3-1:



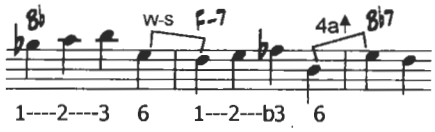
II mode of F major scale
G dorian



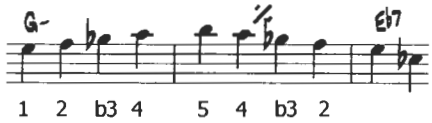
V mode of B major scale
F♯ mixolydian

Music examples courtesy Cd Mauro Battisti

Pettiford uses the sixth as the last note to connect the chords smoothly, and he also employs the typical and effective melodic pattern 1-2-3-4-5-4-3-2-(1):



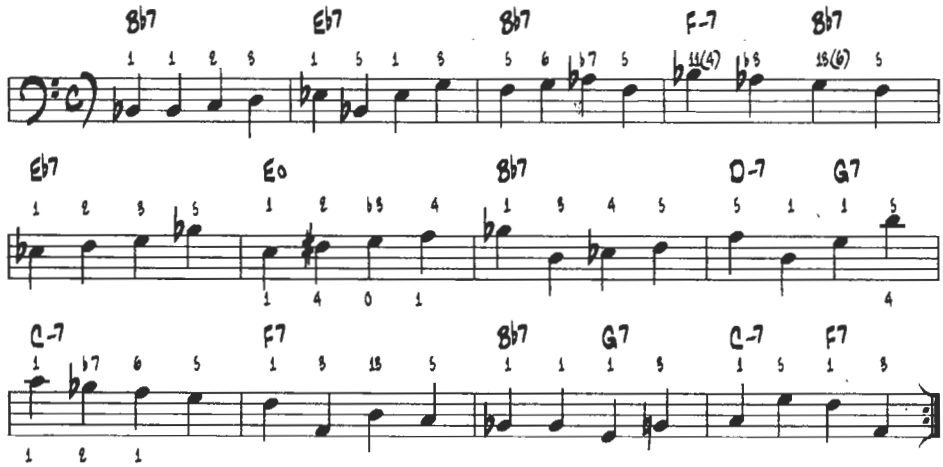
B♭ major scale — II mode of E♭ major scale
F dorian



G melodic minor scale

Remember, scalar movement enhances the melodic function of walking bass and allows much more freedom to use notes that don't belong to the triad (as discussed in the previous articles). Within the scalar flow, the dissonances float in a natural way toward the next consonant note of the triad, with an alternate feeling of tension and release.

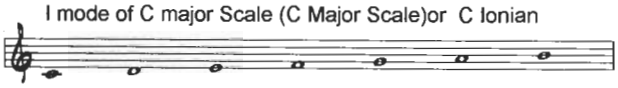
The final example is a useful exercise for building your own walking-bass line according to the concepts explained up to now. It is a walking-bass line on a B♭ blues structure, built with mixed chordal and scalar movements. Marked above the stave is the chord or scale degree, depending on the type of movement (scalar or chordal). Use the chord-scale relationship to discover which scale fragments were used. Where the line moves beyond the first position there is a suggested fingering under the stave.



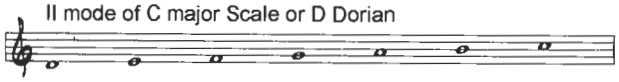
Try to build a similar line on a blues or any other harmonic structure (it may help to be accompanied on the piano). Be aware of chordal and scalar choices and connect chords smoothly. Remember that, beyond the theory, it is important that the line sounds good by itself and has a strong melodic sense. Melodic direction is the foundation for a good walking-bass line and will help you to swing better. DB

The seven modes of C Major Scale

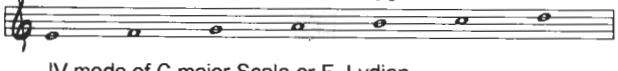
I mode of C major Scale (C Major Scale)or C Ionian



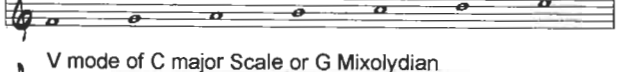
II mode of C major Scale or D Dorian



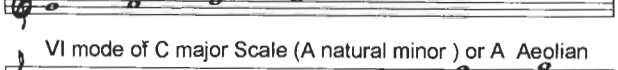
III mode of C major Scale or E Phrygian



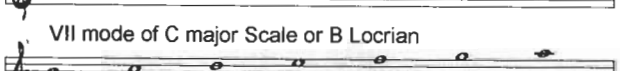
IV mode of C major Scale or F Lydian



V mode of C major Scale or G Mixolydian



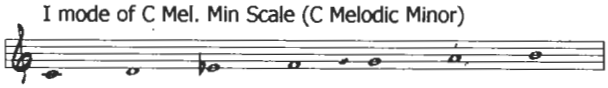
VI mode of C major Scale (A natural minor) or A Aeolian



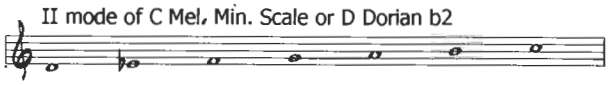
VII mode of C major Scale or B Locrian

The seven modes of C Melodic Minor Scale

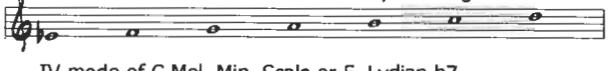
I mode of C Mel. Min Scale (C Melodic Minor)



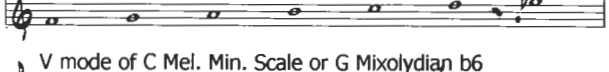
II mode of C Mel. Min. Scale or D Dorian b2



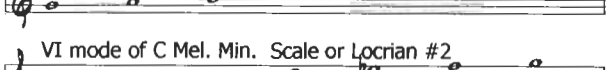
III mode of C Mel. Min.Scale or Eb Lydian Augmented



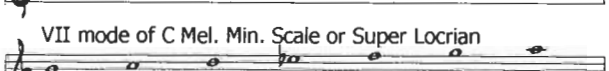
IV mode of C Mel. Min. Scale or F Lydian b7



V mode of C Mel. Min. Scale or G Mixolydian b6



VI mode of C Mel. Min. Scale or Locrian #2

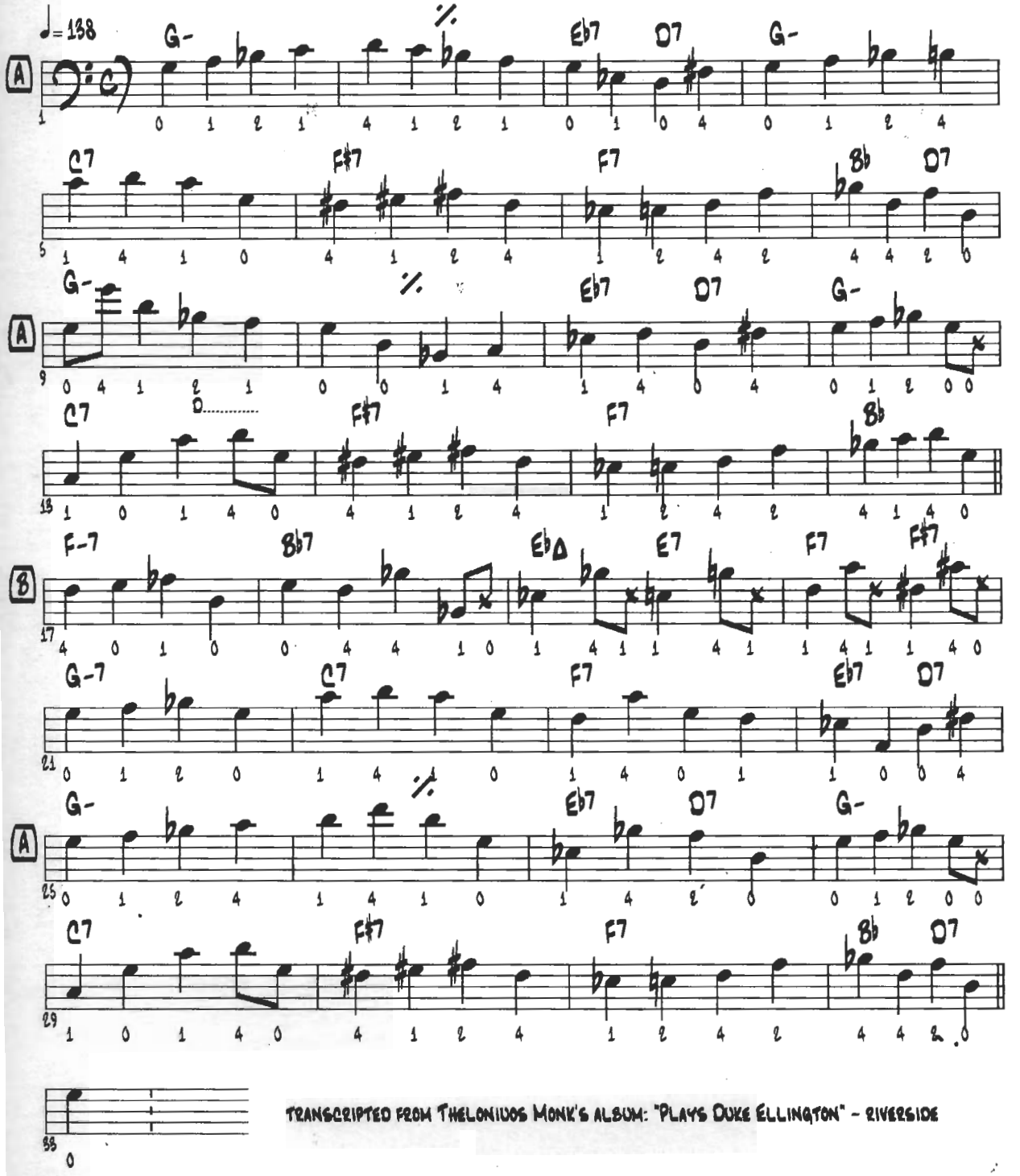


VII mode of C Mel. Min. Scale or Super Locrian

IT DON'T MEAN A THING (DUKE ELLINGTON)

32 BARS
FORM AABA

WALKING BASS BY
OSCAR PETTIFORD



TRANSCRIPTED FROM THELONIUOS MONK'S ALBUM: "PLAYS DUKE ELLINGTON" - RIVERSIDE