

Jazz Ensemble Spring 2020  
Supplement #6  
Dr. Matt Vashlishan  
4/23/2020

### Scales for Improvisation 1 – Major Scales

There are a couple main points I make when describing improvisation. One is that any improvisation is a melody. The second is that any melody can be described as a scale (consecutive notes), an arpeggio (leaps to non-adjacent notes in a scale), or rests (not playing at all). Since rests are easy to play (technically, not conceptually!), this supplement will focus more on the “what” to use while improvising. Examining the statements above, all improvisational material comes from scales.

One of the most useful and seemingly boring things to practice are scales. The younger you are, the more you hate scales. It’s like the vegetables of music. The older you get, you realize how good the veggies taste and also realize how good they are for you, so you don’t mind eating them and actually go out of your way to make them. It is the same process for scales. The more you learn about all kinds of music, the more you realize that scales are the building blocks for all of it. Practicing and committing scales to both muscle memory and to auditory memory can easily help one master improvisation, composition, sight-reading, and more.

I refer to “knowing” a scale or “learning” a scale. To learn and therefore know a scale means you can play it forward, backward, at any tempo, and in any key. It means you can start on any note of the scale and play forward or backward. It means you can skip around or even play randomly without playing any wrong notes that are not included in the scale. This takes concentration and discipline. It’s not as easy as saying, “I think I will learn F major today.” Even if you learn F major, it takes time to internalize the fingerings, notes, and to hear the tones required for that particular scale. The more major scales you learn, the easier learning a new major scale will be. It’s just one of those things. If you want to improvise, you need to know all 12 major scales, PERIOD.

Besides scales, the next confusing component of improvisation is chord symbols. They can get quite complex, but at the end of the day they are just symbols and shorthand that tell you exactly how to manipulate a major scale. If you take a little time to commit the symbols to memory, you can easily apply them to your memorized scales, and come up with new scales that are specifically used for any particular chord symbol.

### **Every chord symbol has one scale that corresponds to it. That’s it.**

Pay close attention to the statement above. To improvise correctly, this statement is not up for debate. One scale per chord, that’s it. If you choose to use a different scale, you are changing the quality of the chord in your head and applying that new chord/sound against the original. This is OK, but you must understand why to make these choices. To accurately depict any particular chord symbol, only one scale will accurately accomplish this. Note that this does NOT mean you can’t play any other note (eventually!). There are two ways to learn chord symbols, and both can be equally confusing. I recommend understanding modes, which I will explain later. For the purpose of this supplement, I will describe the useful chords derived from the modes of the major scale by showing how the symbol manipulates the major scale in each case. Keep in mind that all of the following information transposes into 12 keys. This means that if you see the same chord symbol with a different root (Cmaj7 vs Abmaj7 vs Dmaj7 and so on) all of the same rules apply.

### **Common Jazz Chord Symbols manipulating the Major Scale**

**Major Chord and Variations (M7, Ma7, Maj7, Δ7) Ionian Mode** – All of these chord symbols mean the same thing. They are all a major 7th chord, and therefore correspond to a major scale. It’s as easy as that. Whether you see CM7, CMa7, CMaj7, or CΔ7, all you have to do is use the C major scale.

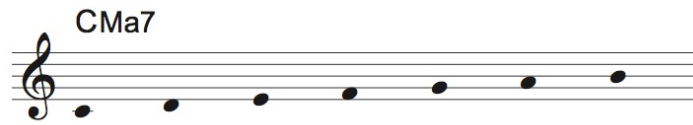


Figure 1 – The C major scale with proper chord symbol

We can go one step further and take the 1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup>, and 7<sup>th</sup> note from the scale above and that creates the Cma7 chord that would be played in the rhythm section or ensemble chords of the accompaniment during the solo.

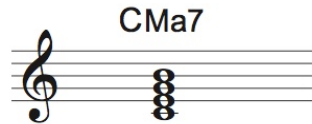


Figure 2 – The C major arpeggio with proper chord symbol

**Dominant 7<sup>th</sup> (7) Mixolydian Mode** – The dominant 7<sup>th</sup> chord is extremely common in jazz, and the lone “7” without any other letters or other symbols instructs us to lower the 7<sup>th</sup> note of a major scale by one ½ step.



Figure 3 – The C7 Mixolydian scale

Just like with the major chord, we can single out 1,3,5 and 7 of this new scale to get the arpeggio for this chord:



Figure 4 – The C7 chord

**Minor 7<sup>th</sup> (m7, -7, min7, mi7) Dorian Mode** – The symbols for a minor 7<sup>th</sup> chord vary just like they do for the major 7<sup>th</sup> chord. All of the listed symbols are valid, but “m7” and “-7” are probably the most common. This instructs us to lower both the 3<sup>rd</sup> and the 7<sup>th</sup> of the major scale. Since we just lowered the 7<sup>th</sup> for the dominant chord, there is only one more step for this scale:

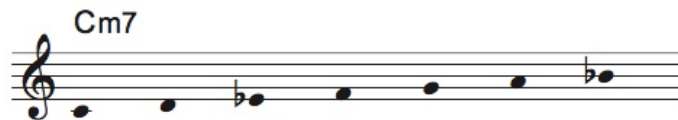


Figure 5 – The Cm7 Dorian Mode scale

As we construct the chord for C minor 7<sup>th</sup>, you can see that the accidentals are starting to add up:

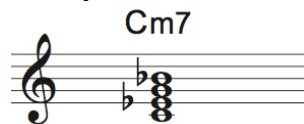


Figure 6 – The C minor 7<sup>th</sup> chord

**Major 7#11 (M7#11, Ma7#11, Maj7#11, Δ7#11, Δ7#4) Lydian Mode** – This chord is a perfect example that defines the point that each chord has its own scale. The basic building blocks of this chord (1,3,5,7) look identical to the Major 7<sup>th</sup> chord (both have C, E, G, B). However, the details of the sound are found in the scale. Since most arpeggios only include 1,3, 5 and 7, the 4<sup>th</sup> note (or 11<sup>th</sup> note if you go past the octave) is often overlooked either until the scale is played or

the arpeggio is extended beyond the octave (to include the 9<sup>th</sup>, 11<sup>th</sup>, and even 13<sup>th</sup>). In this case, that 4<sup>th</sup> note is raised one half step. In this case the note is F, and is changed to F#. If you count each note in the scale, you will find that F occurs as the 4<sup>th</sup> note, and then again as the 11<sup>th</sup> note: CDEFGABCDEF. This is where the label “#11” comes from.



Figure 7 – The C Lydian scale

There are two ways to realize the notes in this chord. One, we can outline C major 7<sup>th</sup> with 1, 3, 5 and 7 and include the “different” note within the octave:

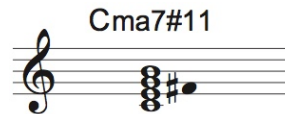


Figure 8 – The C Lydian chord within one octave

If we were to build the chord from the bottom up and keep adding every other note of the scale, we would eventually end up at the F# by including the 9 (D) and the #11 (F#):

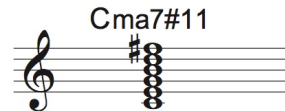


Figure 9 – The C Lydian chord extended beyond the octave up to the #11

**Minor 7<sup>th</sup>, b6 (-7b6, m7b6, min7b6, mi7b6) Aeolian Mode** – Hopefully by now you can start to see how each chord symbol literally depicts how to change the original major scale. While I am not including every mode of the major scale system (some are not used very much at all) I am including this one to give you some exercise in seeing how the symbol “directs” us to change certain notes.

The basic information in this chord symbol can be divided into two parts: the “m7,” and the “b6.” If we look at the first portion, we have seen this before. This is the dorian mode, that instructs us to lower the 3<sup>rd</sup> and 7<sup>th</sup> of the major scale. The second portion tells us “b6,” or to lower the 6<sup>th</sup> note by one half step, for a total of lowering 3 notes by a half step.

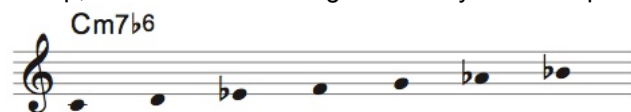


Figure 10 – The C Aeolian scale with the flatted 3, 6, and 7

The main point here is that as the chord symbol gets longer, it is important to take time and read the information that is there and think about how to make a scale out of it. For all of these modes, the scales must have only 7 notes. There are only a few scales that have more notes than that, and those are used in special cases and will be discussed later.

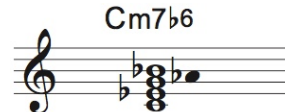


Figure 11 – The Cm7b6 chord spelled within one octave by adding the important note

**Half-diminished 7<sup>th</sup> with a b2 (m7b5, ø7) Locrian Mode** – This mode is the most complicated because it is derived from a completely foreign major scale. The easiest way to describe what to play here is “go up a half step, and play that major scale.” For example, here we have Cø7, or Cm7b5. Starting on C, we would go up one half-step to Db (C#), and play that Db major scale stopping on C. If we do this, we hit all the notes required by saying “m7b5” as well as adding “ab”

as a passing tone to make this scale “sound” like the chord. As we get more specific down the road, there are two different  $\emptyset 7$  chords: one with a  $b2$ , and one with a natural 2 (in this case one with a  $D_b$ , and one with a  $D$ ). They come from different parent scales and are used in slightly different situations, however the natural 2 would be slightly more accurate to this chord symbol. Don't worry about that yet!



Figure 12 – The C Locrian scale (including the  $b2$ ). Notice how the notes are identical to a  $D_b$  major scale!

This is another situation where we can spell the  $\emptyset 7$  chord inside of one octave and add the “interesting”  $b2$ . When playing the arpeggio, the  $b2$  is usually omitted.

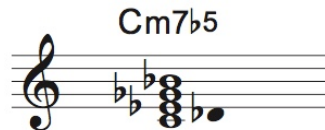


Figure 13 – The  $C\emptyset 7$  chord with the addition of the  $b2$

**Phrygian (phryg., Phrygian,  $m7b2b6$ )** – For the sake of providing a complete supplement, I am including the Phrygian mode. This is rarely used but nevertheless it exists. To build this scale, you take the root of the chord and pretend that is the 3<sup>rd</sup> note of a major scale. For example, Ephrygian would use the C major scale, because E is the 3<sup>rd</sup> note of C major. This is getting ahead a little bit, because this explanation is the basis for understanding modes, which will occur in the next supplement. Take a look at the scale and chord for Cphrygian, and see how we manipulate C major to get this scale:

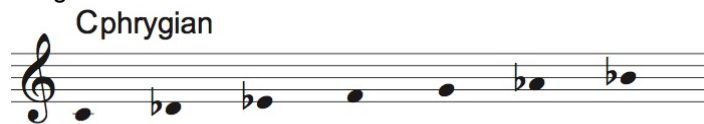


Figure 14 – C Phrygian using the notes of the  $A_b$  major scale to lower 2, 3, 6 and 7

### Summary

If you become accustomed to the main elements and their variants that are used to create chord symbols ( $m$ ,  $M$ ,  $7$ ,  $b$ ,  $\#$ ,  $\emptyset$ ,  $-$ ), then after a little time you should be able to understand how any chord is created. From there it shouldn't take long to make the proper scales for any chord. However, this is only half of the battle. The other half is HEARING the chords, and hearing how the scales summarize the sound of the chord. The goal when improvising is that your made up melody should reflect the chord happening at any given moment. This is easier said than done.

The other challenge is that everything in this supplement should be transposed into 12 keys. This is also easier said than done, but the more you do it the easier it gets. One technique that makes learning all of this in 12 keys easier is shifting to a mode-based understanding of chords and scales. Modes can be thought of as starting places within each scale. I will pick up here for the next supplement!