

WALKING BASS

An unfinished project by

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Author's Note

I began writing this project in the summer of 2013. At the time I was just entering my final year of music at Ulster University, and planned to get a head-start on a possible final project. I was playing *a lot* of traditional Jazz music around Northern Ireland, accompanying figures such as Gay McIntyre, Linely Hamilton and John Trotter, and felt that I had gained enough insight into the role of a jazz bassist to be able to write the 20,000 words required. As fate would have it, I never took the modules required to submit a self-directed project, and so what follows is probably about a third of a project.

Fast-forward to 2018, and a lot has changed in my life. Since writing this, I graduated, gained a Master's in composition, got married, joined and left two pretty successful rock/pop bands, and joined a very successful Irish country band, which is currently my full-time job. It dawns on me that an awful lot can change in five years in your 20s, and although I still love jazz, I can no longer call myself a professional jazz-bassist. Indeed, the speed at which I went from being at the very centre of the local jazz scene, to a destitute bassist looking for any paid gig (about six months) goes to show you can't rest on your laurels in the music industry.

The current project consists of six of the first eight chapters of the final project. The missing chapters would have consisted of a chapter on two-step playing, located between *The Role of a Bassist*, and *Approach Notes*, and a chapter on ii-V-Is and modulations, located before "*Why are Modes so Important*". Naturally, this means that there is some important information missing about the harmonic function of beats one and three, and temporary modulations, which the following chapters assume you already know.

I may never finish this project, but hopefully it can still be of use to any aspiring bassists looking to better understand walking bass. If you have any questions feel free to get in touch via email: chrisdoherty777@gmail.com

Introduction

Mark Levine, author of *The Jazz Theory Book* and *The Jazz Piano Book*, wrote, “A great jazz solo consists of:

1% magic

99% stuff that is

Explainable

Analyzable

Categorizeable

Doable”

The same principle applies to great *comping*, or improvised accompaniment, arguably even more so. Bass comping is a logical, thoughtful art-form that by its very purpose is supposed to be clear and easily understood by other musicians. You don't have to be a virtuoso to be a great bassist either. Ron Carter once told a group of students that all you needed was to “be a nice guy”, “show up to every gig half an hour early”, “practise *a lot*” and “*never* play for free”.

The principles laid out in this book are designed to give any experienced musician the ability to understand Jazz theory from the perspective of a bassist. Many of the topics expounded upon will be of use to other instrumentalists, such is the nature of music theory, but they are primarily aimed at educating bass-guitarists and double-bassists who already have some experience of playing in a Jazz style, but want a solid foundation of music theory to build upon.

Always remember, the goal of every Jazz musician isn't to get bogged down in theory, it's called theory because it isn't right 100% of the time. It can be proved and disproved, made to seem like the holy grail of music, and made to seem like a useless obstacle between you and your goals, but Jazz theory *does work* and can be applied 99.9% of the time, especially when it comes to the foundational playing style of bassists. This is an educational book, written with the assumption that the reader wishes to learn more about Jazz theory, and in particular walking bass theory.

Many people quote Charlie Parker as saying, “Learn the changes, then forget them.”, and focus on the “forget” aspect of what he said, without mentioning that you have to “learn the changes” first. They also apply this quote to music theory in general, something I'm sure Charlie Parker, who was clearly referring to chord “changes” in Jazz standards, wouldn't appreciate at all! It is vitally important as a Jazz bassist to learn the theory, *all* the theory. Internalize it, become so used to it that you don't need to question your own decisions during a tune, but whatever you do, don't forget it.

In the words of Ray Brown, “Walking is about getting someplace, not about the movement of limbs.” Whilst some of the great Jazz bassists, such as Pedersen or Pastorius, were undoubtedly amazing virtuosos, they didn't just bypass comping. John Summers, an esteemed Jazz guitarist in Ireland, once told me, “You'll never go a week without work in your life if you just learn to play any set of chords well. Some players think they have to show off every lick and every scale or mode they know in one gig, or even one song. But you have to keep people listening. Let your playing tell a story. Don't give away the punchline straight away.” With that in mind, this book aims not only to cover the music theory behind walking bass, but also how to act *and play* in a real-life Jazz environment.

I hope you find this book both useful and insightful. No one book can cover everything that you'll ever have to deal with as a bassist, but I aim to use my own working life as an example, from gigging, to teaching, and by this method cover as much as possible. In the words of my former bass tutor and work colleague, Marc Forbes, “keep sharing the knowledge you have, and you can learn a few things”.

The Role of a Bassist in a Jazz Setting

One of the most important aspects of any musicians playing is their understanding of the role assigned to them in a particular group. For example, a good drummer knows that his/her job is to keep a straight rhythm, and to help create contrasts in the texture of the music, and an accompanying guitarist or pianist knows that their job is to voice chords for the soloist to play the tune, or a solo, over. They may want to break into a bunch of scales or harmonise with the soloist, but the further that they move away from their role, the more that they inhibit the freedom of the soloist, as well as leaving the bassist alone to outline all the chords. Similarly I have come across fantastic guitarists who suddenly decide to create a walking bass along with their chordal playing, completely encroaching on my job as the bassist, and forcing me to abandon the walk, or else risk a muddy, clashing lower-end to the music.

Good bassists understand the importance of *not showing off until it's your time to shine*. Especially in a walking context, the more that you deviate from the four-crotchet rhythm, the more attention that you draw to yourself, and hence away from the soloist. This doesn't mean you can't be creative. Improvised walking bass is extremely creative in comparison to, let's say, a guitar player comping set chord shapes. The mere fact that you are using all your modes, something that guitarists are often yearning for, but have to wait until they get a solo, should be enough to keep you happy. Good bass comping is a perfect example of *creativity within set boundaries*.

Functional Harmony Verses Creative Harmony:

Jazz music has a number of key sounds that distinguish it from other types of popular music and art music. One of these is the constant battle that goes on between a chord's *function* and *other ways of using it creatively*. These two ways of approaching any given chord are what *harmonically* distinguishes a walking bass line from a solo.

Let's take sus chords as an example. In Jazz, sus chords are normally allocated to a Mixolydian, *dominant* mode. That is because, normally, they serve the same *function* as a normal V7 chord. In an A-7 – Dsus9 – Gmaj7 chord progression, taken from *Dolphin Dance* by Herbie Hancock, the Dsus9 chord, despite being typically a Phrygian chord, serves the same purpose as a D7 chord would in what is clearly an altered ii-V-I progression. This means that while a saxophonist soloing over these chords would probably play a Phrygian mode, or perhaps mode two of the Melodic Minor scale - see how they can be *creative* with it? - a bassist would probably, keeping its function in mind, avoid the b9 and play a descending Mixolydian mode, or perhaps a broken dominant chord, including the 4th.

The bassist here, *could* play a Phrygian mode. *It wouldn't be wrong*, but it wouldn't have the functional pull towards the approaching Gmaj7 chord. This difference in the thought processes of bassists and soloists is one of the key aspects that give Jazz a unique sound. Notice how, even though playing a ii-V-I may seem less creative, when it is played underneath a creative-minded soloist, it is far more harmonically interesting than if both the bassist and soloist played the same scale, and it especially helps the soloist to appear creative, as he/she plays slightly *outside*.

Rhythmic Role of the Bassist

Along with the drummer, the bassist is the most important member of any small group rhythmically. In fact, the smaller the group, the more likely that a drummer won't be needed, but the bassist will remain in a Jazz trio and even in a piano duo, the bass is a major contender for being the second instrument.

Since baroque music, walking bass has been used as a way to rhythmically drive the music

forwards, and it still serves this purpose today. In this respect, walking bass can be seen as the highest gear that a bassist reaches in Jazz, but not the only gear. In many ballads or slower tunes it would be entirely inappropriate to start straight into a walk. For times such as these, good bassists use a technique called *two-step*, which we shall cover in detail in the next chapter. Simply put, two-step consists of a mixture of semibreve and minim notes, with an increasing tension towards the end of phrases, often breaking into a slight crotchet walk.

Two-step playing on the bass allows for the lead player to be a lot more free with their timing, something that can greatly influence how a tune is approached. Often, the bassist will break into a walk during the solo(s) section, and then back to two-step upon the return of the tune, which helps give a more defined ternary structure to a piece. In a situation like this, the bassist is arguably the instrumentalist with the greatest sphere of influence over how the rest of the group plays, but that doesn't mean you should boss about the other players. Remember: *A good bass player understands how to read what the soloist is trying to achieve, and steers the rest of the group accordingly.* That, in a nutshell, is the rhythmic role of the Jazz bassist.

What to do next:

The only way to get better at your role as a bassist is with experience, but keeping the two principles of *functional harmony* and *rhythmic structure* in your mind will certainly help you avoid some awkward looks from the other players. Remember, you have an important and unique role to carry out as a bassist. If you don't do it, nobody else will!

Approach Notes, and the Importance of Beat Four

In the previous chapter, we focused mainly on beats one and three, the *strong* beats of a bar. In this chapter, we will look at another important moment in any bar of music, *beat four*, and why its role is different to that of the rest of the bar.

Thinking Ahead:

Whereas beats one, two and three are supposed to outline whatever chord is being played, provided the chord is being held for a full bar, beat four needs to set up beat one of the next bar, and with it, whatever chord is being played in the next bar. Please keep in mind, the following rules still apply regardless of the length of a chord. We will cover what to do in those situations at the end of this chapter. For the purpose of illustrating the 'beat four' principle, we will take for granted in this chapter that each chord lasts for at least one bar. Whilst any beat immediately preceding a chord change can take on the harmonic role of beat four, in a 4/4 time signature only the actual fourth beat of a bar has the rhythmic tension to release on a downbeat. Perhaps this is why one chord to a bar is so commonly used, as the harmony has time to breathe, going through all four subtle beat differences, but that would be too big a topic to take on in this book.

Approaching Beat One – Approach Notes:

There are several ways of setting up the root of a new chord:

- Playing its fifth.
- Playing the diatonic note directly above or below it, in the key you are currently in.
- Playing the diatonic note directly above or below it, in the key of the next bar.
- Playing the chromatic note, one semitone directly above or below it.

One of the interesting things you may have noticed is that beat four doesn't have to outline the chord that you are currently on. It *can*, but it can also be in the chord/scale of the next bar. It can also be in neither set of notes, and be played purely as a chromatic *leading note*, to create even more tension that wants to pull towards the root of the next chord on the downbeat. It is this creation of tension that defines beat four in walking bass.

The Full Bar – Rhythm Verses Harmony:

Now that we've covered beats one, three and four, all that remains is to give a brief description of beat two. Probably the least important of the four beats, beat two acts as a kind of mini beat four, creating a little bit of tension, much in the same way that beat three is a lesser downbeat. We will cover this more in the next chapter, *Walking Bass – Three Approaches*, but for now, beat two can be either a chord tone, in which case it creates no harmonic tension, or it can be a diatonic non-chord tone, which creates a little bit of tension, but not as much as beat four can achieve. Let's take a look at how each beat of a 4/4 bar works rhythmically:

RELEASE – *stress* – **release** – **STRESS**

And now let's add some harmony:

ROOT – *second* – **third** – *CHROMATIC LEADING NOTE*

One of the main questions that I get asked by people when explaining this, goes along the lines of, “what about syncopated rhythms? Don't they change the strong beats of a bar or music?”. The simple answer to this is that no they don't. Whilst syncopated rhythms tend to accent beats two and four, it doesn't change the role of each beat rhythmically, and certainly not harmonically. Whatever pattern a drummer decides to play, or the melody of a tune decides to follow, there is always a clear sense of beat one. If there wasn't, the music would likely fall apart. All syncopated rhythms achieve is giving greater importance to the stressed beats of a bar. As far as a walking bass line goes, nothing changes, although if the rhythm becomes *more* complex, placing accents on the “and” beats, then perhaps a straight walk is no longer the most appropriate form of comping.

What to take away from these past few chapters:

All of this focus on the role of individual beats in a bar may make it seem as if picking the next note to play is hard task. What we will cover in the next few chapters is exactly how bassists get around this, so that they don't have to think in a note-by-note basis, but rather in scale-by-scale-by-arpeggio-by-add-that-chromatic-note kind of way. If that doesn't make sense to you now, it should by the end of *Walking Bass – Three Approaches*. Finding a way to allow the specific role of each beat to occur naturally in your playing is key to creating very harmonically strong walking lines.

The approach notes principle is perhaps one of the most important in all bass music, from classical to pop. The ability to convincingly connect the roots of chords to each other in a melodic way is a universal attribute for a bassist or composer (and let's remember, in the words of the late Billy Taylor, “all Jazz musicians are composers”), no matter what the style of music is. The only variance there might be is that the use of chromatic approach notes suit Jazz better than some other styles of music. Remember, *use your ear!*

Walking Bass – Three Approaches

Now that we have covered two-step playing in greater detail, the next step is to analyse how walking bass lines are formed. When approaching any given chord, there are three methods a bassist can use to walk it:

- Broken chords.
- Diatonic scales.
- Chromatic passing and approach notes.

Using just one of these methods *will not create an interesting walking bass line*. The key this lies in learning each method separately, then combining the three. The weighting that you give to each depends entirely on your own ear, whether or not you are content to use a lot of broken chords, or perhaps you think chromatic approaches sound cheesy. It is this approach that inevitably gives each bass player his/her own unique sound. Remember, *develop your ear* by listening to the masters. Ron Carter, Ray Brown, Mingus, Niels-Henning Ørsted Pedersen etc. all have their own unique sound derived, ultimately, from how they approached this very concept.

Breaking Chords:

This approach is probably the easiest of the three, but arguably the strongest at outlining any given chord or chord sequence, hence why it was developed in the Baroque era. It's major downsides, in a Jazz context, are that it isn't very harmonically interesting, and doesn't give much room for creativity from the bassist. In my own experience of live Jazz music, this approach becomes more useful at very fast tempos, as it doesn't require much thought.

Playing a broken chord is easy, even for musicians with relatively little musical knowledge. The trick is to always begin with a major triad, and just change it according to how the chord symbol dictates. Let's take Gmaj7, for example. We are given the root, G, so we apply a major triad to give us the notes G, B and D. Finally we take the other bit of information given, the major seventh, add the major seventh of G, and we get G, B, D and F# as the four notes that we are allowed to use. If the chord was Gm7, we would apply the same process, starting with a major triad on G, then flattening the third to make a minor triad, and finally adding the minor seventh, to give G, Bb, D and F. Please note: in a minor chord symbol, m7 doesn't mean "minor-seventh". The "m" indicates a minor third, and the "7" does the same job it does in a dominant chord, indicating a dominant/minor seventh.

As far as chord extensions past the seventh go, before playing them, ask yourself, "Is this note contributing to the *function* of the harmony?". Most of the time, unless a chord is stretched over a couple of bars, there are more important notes left that you could play. We'll cover this more later on, in *Chord Lengths and the Importance of Certain Notes*.

Using Diatonic Scales:

In this context, the term "diatonic" is referring to the use of scales and *modes* derived from the major scale and the two main minor scales, melodic and harmonic, as well as some self-contained ones such as the octatonic or whole-tone scales, as opposed to simply highlighting notes of the chord, or playing completely chromatically.

Out of the three methods, in a Jazz context, diatonic scales should probably make up the biggest share of your playing and practice. This is because as well as clearly outlining any given chord, the fact that often several different scales could contain all the required notes gives you the

freedom to pick and choose the scales you want to play, much in the same way a soloist will experiment with different scales over the same chord sequence.

Let's take Adim7, for example. Since a diminished seventh doesn't naturally occur in the major scale, let's look at where it *does* occur. In the harmonic minor scale, the seventh mode, Mixolydian #1, is a naturally occurring diminished seventh scale. We could also use the octatonic scale, which is always interesting to use as, unless it is coming immediately after another diminished chord, it sounds very chromatic, as it is a different key/tonality entirely *and* contains an extra note compared to most scales. In fact, it contains the maximum amount of notes possible without creating a four-semitone chromatic run.

The Mixolydian #1, and the octatonic scale, despite both being diminished, sound very different. It is this type of freedom to change the feel of a chord that gives scalar playing an advantage over simply playing broken chords.

The reason that scales are able to outline chords so well lies in the fundamental 4/4 time signature of walking bass. If you try walking over Dave Brubeck's *Take Five*, it requires significant extra thought to do without resorting to broken chords. This is because, *when walking a scale, the chord tones have to land on strong beats*. Here is a Dorian mode played over a Cm7 chord:

C, D, **Eb**, F, **G**, A, **Bb**, *B-natural*, C.

In bold, are the strong beats, one and three. See how the notes of the Cm7 chord fall only on the strong beats? Now, you've probably noticed that there is an extra, *chromatic*, note in italics. This note has been added so that C will fall on the downbeat of the next bar. The scale above isn't actually a proper C-Dorian mode. Instead, it's *C-Bebop-Dorian*. Bebop scales were invented by Jazz musicians in the 1940's, to allow them to play a scale for several octaves, and still have the chord tones land on the strong beats of the bar. They are also a pretty good example of how *chromaticism* works. The B-natural doesn't belong in the key of Bb major, but it *does* fit as a passing note in this C-Dorian mode. We haven't somehow modulated key, or become atonal because we added a foreign note. *Keep this in mind while studying the next section.*

Using Chromatic Notes:

My old bass tutor, Marc Forbes, used to say, regarding how much a bassist should 'play out', "The bass is a bit like spice on your food. Not enough, and your food tastes bland and uninteresting. Too much and nobody is going to eat it." The same principle applies to chromaticism in a walking bass line, perhaps even more so. Chromatic notes work best as a way of keeping your bass playing interesting, especially if the same chord is repeated many times in a song. They can be applied to both scalar and arpeggiated playing, but perhaps the most important rule to remember is to *avoid playing chromatic notes on the strong beats of a bar*. In fact, unless a chord only lasts for two beats, chromatic notes should usually only be played on beat four, because of its important role in setting up the next chord/downbeat. If you aren't clear on this yet, please read the previous chapter, entitled *Approach Notes, and the Importance of Beat Four*.

The main downside to chromatic notes are that, other than sounding interesting, they really only serve two similar harmonic functions, those of *passing* notes and *approach* notes. To highlight the difference, let's have a look at two different made-up reharmonisations of a section from the Jazz standard *All of Me*, by Gerald Marks and Seymour Simons:

Dm7 – Gm7 - C7 - F7

and

D7 – G7 – Cm7 – F7

In the first chord sequence, we can see that this is a vi-ii-V-I in F, which in turn is the dominant of Bb, the key of the piece. In the second chord sequence, we can see that it is a iii-vi-ii-V in Bb, but with several substitutions to give more of a dominant-tonic pull on each set of chords.

What is interesting about both progressions, is that they could be played the *exact same way* by a bassist, if he felt like over-using some chromatics. Let's take the Dm7 – Gm7 in the first progression. It could be played D, E, F, F#, G. Right? With a *leading note* added in to create more of a pull to the G. Now let's take the D7 – G7. It can be played using the *same notes*, D, E, F, F#, G, but now there is an added *passing note* so that the existing leading note, F#, can fall on the fourth beat of the bar. Please note, this example breaks the rule about not placing chromatic notes on the strong beats of the bar. We have sacrificed some of the harmonic certainty, but not for nothing. Now we have a *motif* that can be moved around and played from D-G, G-C, C-F, and even F-Bb, regardless of whether it's a major or minor chord, because both the major third and minor third are contained in the motif.

This example highlights how the over-use of chromatic notes is often sighted as lazy bass playing, just as the over-use of broken chords can be. However, the sparing use of both can make for very interesting and varied bass lines. Often arrangers will add chromatic notes to an existing set of chords, just to create even more of a pull towards the next chord. This works especially well for *dominant-tonic* harmony. A D7(b5) chord has even more of a pull towards the note G than a simple D7 chord, because as well as the third (F#) being its leading note, now the added flat five (Ab) is *also* pulling down towards G. It is often appropriate for a bassist to add their own flat five to a particularly important dominant chord, for instance at the *turnaround*. This is because the extra chromaticism actually serves the *same function* as the chord being played.

Remember, sometimes an added chromatic note can be both a leading note *and* a passing note. The two aren't mutually exclusive. *A passing note is added to create a chromatic run and help chord tones fall on strong beats, or to help leading notes land on beat four. A leading note is added on beat four to create a harmonic pull towards a new root note, and often also acts as a passing note so that the new root can land on beat one.*

What to do next:

Practice walking over an old standard. Play only broken chords, then scales with no chromatic notes, then try adding passing and leading notes to as many chords as you can. Don't be afraid to stop and map out in your head where you are going to be creative and what your options are. Finally, try playing with a mixture of the three. Get a feel for how you like to play, and what sounds you like or don't like. Once you're able to hold your own, listen to how the masters sound.

Transcribing recordings is often sighted as one of the very best ways to get better at your instrument. Give it a go! If reading and writing music isn't your strong point; 1.) work on it. 2.) Watch videos on Youtube. Seeing just how good the likes of NHØP was, and listening to his specific tone, as well as noticing *licks* in his playing will really help develop your own ear and playing style. Ron Carter, one of the Jazz greats has a multitude of interviews online. There really is no excuse not to get listening to some of the best walkers in history, and hearing the things covered in this book played at that level really will benefit you.

Quick Recap, Descending Scales and the Role of the Sixth

So far, we have covered some key principles in creating a *strong*, interesting bass line:

- Bassists should focus on *functional harmony*.
- Beat one should be a chord tone, *usually the root note of a chord*.
- Beat three should *usually* be a chord tone.
- Beat four should set up the next downbeat, whether that be a new chord or the same chord.
- Beat two is pretty free, usually seen as a lesser beat four to approach beat three, *but it can take on the full harmonic role of beat four, if a chord only lasts for half a bar*.
- Chords can be outlined by breaking them, playing diatonic scales and/or playing chromatic notes along with broken chords or diatonic scales.

What About Descending Scales?

You may well have noticed that, whilst covering the roles of specific beats in a bar, and how to use diatonic scales to outline chords, any examples given were based on *ascending* scales only. This is because playing descending scales over chords, whilst still clearly outlining the harmony of a bar of music, leaves a *weak* harmonic note, the sixth, on a *strong* beat of the bar, the third. The reasons why descending scales still work *very well* as a way of playing a chord are twofold:

- Descending bass lines are pleasing to the ear, and have been used in classical music for centuries to give the lower end of the orchestra motion.
- Three notes of the chord are being played in beats one, two and four, *clearly stating a chord regardless of beat three*.

The Sixth Degree of the Scale:

Since descending scales may make up a significant portion of your bass comping in any given tune, this has given the sixth a role as a kind of replacement third in walking lines. The similarities in their characteristics are worth noting:

- Both are the third note away from the root of a chord, depending on which direction you go, in a diatonic scale.
- Most common scales with a major third also have a major sixth.
- With the notable exception of the Dorian mode, many scales with a minor third also have a minor sixth.
- Therefore, the sixth can often carry out the same role as the third in specifying the role of a chord, *even if it isn't a chord tone*.

This gives bassists an extra degree of freedom to avoid repetition, and has become a major characteristic of some players, such as Ron Carter. Transcriptions of *Autumn Leaves*, from Miles Davis' *Live in Berlin* recording, on which Carter played, show that he had a tendency to voice the sixth of the chord on beat three, whether he was playing a descending *or* ascending line. On several occasions he uses only one actual chord tone in a bar along with the sixth, to create a kind of tonal ambiguity for a while, before coming back with a really strong line harmonically. This on-the-fly creativity shows just how good a player Carter is. Often, especially if you have the opportunity of playing with a really virtuosic musician, you might notice a soloist trying to create a particular mood with their playing. Having the ability to utilise harmony to help them access that mood or

colour is the sign of a great player.

This kind of understanding won't come simply by reading this book. It takes a lot of practice, but this again demonstrates how useful transcriptions of live recordings are in allowing us to spot where players have done something seemingly out of the ordinary. Understanding music theory is often just as important in allowing us to spot little bits of creative genius in other peoples playing as it is in improving our own playing ability.

“Why are Modes so Important?” - Modes and Chord Extensions, Finding the Key

Introduction to Modes:

From my own interaction with undergraduate students at the University of Ulster, I know first-hand that when the subject of modes is raised for the first time, bassists seem to be the only group of instrumentalists who have a decent grasp of them. This isn't surprising. For a start, a fretboard is certainly an easy way to visualise not only the fingering, and hence intervals that make up any given mode, but also the position of that mode in relation to the modes around it. Most importantly, however, good bassists understand the basic principles that will be expounded upon in this next chapter, most importantly that *every chord has at least one correlated scale. These scales are called modes.*

In order to illustrate this relationship in its most basic form, let's take the chords, with their sevenths, of the key of C Major:

Cmaj7, Dm7, Em7, Fmaj7, G7, Am7, Bm7b5.

The next step is to simply rhyme off the seven modes of the major scale:

Ionian, Dorian, Phrygian, Lydian, Mixolydian, Aeolian, Locrian.

And now we've got a mode to play for any given chord sequence e.g.:

Dm7-G7-Cmaj7 = D-Dorian- G-Mixolydian- C-Ionian.

This rule works for any piece of music, in any key, *provided it doesn't contain any substitutions, tonicisations or modulation.*

The most important skill to develop in this area is the ability to spot when the norm is about to be broken, and quickly re-assigning the modes to a new note. The only way one can get good at this is with practice.

Using Anchor-Points to Reassign Modes:

When looking at a chord chart for the very first time, it can often be tricky to know which mode to assign to any given chord. There is a lot of bad teaching and bad practice in this area, and even quite advanced bassists could have reached where they are without realising that they are being held back by over-simplified or simply wrong rules. The thought process behind this is often along the lines of, “Something I tried seemed to work ninety-percent of the time, so it must be right. Right?” Wrong. A glaring example of this thought process is the assigning of the Dorian mode to *every* minor chord. Whilst this may work for entire pieces without a problem, due to the prevalence in the ii chord in Jazz, as part of a ii-V-I progression, as soon as a iii or vi chord appears, playing a Dorian scale would result in a clash with the melody, or soloist, often making them sound the one at fault, rather than the bassist, who might go on to continue making the same mistake until they are corrected. Whilst Aeolian (vi) chords are rarely played, and are usually substituted for dominant chords in a vi-ii-V-I progression, they *are used*. The bridge of Miles Davis' *Milestones* is simply A-Aeolian, for example.

Please note, a bassist who knowingly plays Dorian over a iii or vi chord could be doing it to create harmonic interest, but there is a difference between creating harmonic ambiguity on purpose,

and unwittingly playing the 'wrong' notes. Even in Jazz, the role of the bassist is to ground the harmony clearly, not solo underneath the rest of the band. The degree of freedom allocated to the bassist usually depends on the size of the group.

When looking at the chords of any given key, it is important to note that there are two possible modes to play over a major 7th chord, Ionian and Lydian, and three possible modes to play over a minor 7th chord, namely Dorian, Phrygian and Aeolian, but *there is only one dominant chord and one half-diminished (m7b5) chord*. These are the anchor-points to base the rest of your harmonic understanding of a piece around. Since, for various reasons, the dominant V chord occurs a lot more often than the half-diminished vii chord, it really is the most important chord to familiarise oneself with, as well as the Mixolydian mode, since in any given Jazz standard it will be played in three or four different places.

In the Jazz standard *All of Me**, (in the key of Bb major), the piece starts with a Bbmaj7 chord, which we can safely assume is Ionian, but then immediately jumps to a D7, which is Mixolydian, but suggests the key of G major, followed by G7, which is Mixolydian again, and then rounds off the first eight bars with a Cm7 chord, which would be Dorian in the key of Bb major. This pattern of using temporary V7 chords to jump to a new dominant chord, where the I would normally be, is repeated until the opening section arrives at a ii-V-I in the key on Bb major again. This piece is a great example of how dominant chords are used both as *substitutions for other types chords*, and as *approach chords* in Jazz, and hence how often the Mixolydian mode is used in walking bass.

Using Chord Extensions to Help Identify Modes Further:

As we have just covered, when walking over bare seventh-chords, it often isn't immediately obvious which mode to use for any given minor 7th or major 7th chord, and we are forced to use a nearby V or vii chord to work out exactly which one is suitable. What quickly becomes apparent whilst using this thought process is the inherent minefield of substitutions that cannot be relied upon to find the key of the piece. Whilst, with practice, it is perfectly possible to get used to recognising the natural modal series through the smokescreen of dominant and diminished substitutions in any given piece (although half-diminished chords are usually comparatively reliable, but are less frequently used), chords get much easier to read with the addition of extensions. It is worth noting, at this point, that if Jazz music didn't use seventh chords as an integral part of its harmonic language, and only adopted triadic harmony, it would become even more difficult to distinguish between V chords and other major chords, and there would be no way to highlight the minor 7th that makes the vii chord only half-diminished. Therefore, *the more 'complex' any given chord is, the easier it is to identify its harmonic role*.

As Linely Hamilton once described them, in a first-year lecture, complex chords (chords with extensions past the seventh, or with added notes) are “Ronseal*” chords, because they simply do “exactly what they say on the tin”. To expand, an Em7b9 chord will always lean towards a Phrygian mode on E, since it is the only minor mode of the major scale that has a flattened ninth, and a Gm7b13 indicates an Aeolian mode on G, since the flattened thirteenth is found in the Aeolian mode. Even though a Phrygian mode also contains a flattened thirteenth, a complex chord that doesn't state a flattened ninth, effectively states a natural ninth, found in the Aeolian mode.

Whilst chords like m7b9 may be clear in pointing out a particular mode, in practice, they are rarely used. The Phrygian mode is most commonly played over a susb9 chord, *simply because it sounds better!* To expand, the b6/13 found in both the Phrygian and Aeolian modes clashes against a basic m7 chord, which is why Dorian is *usually* the mode to play over a m7 chord. The following is a table of common chord types and their related major-scale modes:

Maj7,9,11,13	Ionian
M7,9,11,13	Dorian
susb9	Phrygian
Maj7,9,13 (#11)	Lydian
7,9,11,13	Mixolydian
sus	Mixolydian
m7,9,11 (b13)	Aeolian
m7b5	Locrian

The way in which complex chords limit the amount of possible scales that can be played has allowed composers and arrangers alike to specify exactly what scales that they want bassists and soloists to use at particular parts of a piece of music. Getting familiar with the different types of chords may seem a daunting task at first, but with practice, any bassist can learn to pick out the key bits of information that make certain modes unique from the rest.

What to do next:

Now that we've established how modes can be used to walk underneath chords, the most important thing to do is make sure you know all seven major-scale modes, *in every key*. The easiest way to do this, whether your main instrument is bass guitar or double bass, is to stop thinking in terms of, “which note comes next?”, and start memorizing the *shape* of every mode, and practise using the same hand movements for a particular mode regardless of what your starting note is and *avoid using open strings*. This way, you need only memorize seven different scales, instead of seventy-seven! Practising this way also helps you to visualize your harmony a lot easier, as your brain begins to associate the different characteristics of a chord, such as a flattened seventh, with specific muscle movements. This transition from key-centred thinking, where a player thinks in terms of, “I'm playing D-D, in the key of C major.”, to modal-centred thinking, where a player thinks in terms of, “I'm playing D Dorian, *regardless of what key I'm in.*” is essential in Jazz music to keep up whilst 'comping', or improvising an accompaniment from a chord chart.

Being able to take chords at face value helps overcome confusion at sudden substitutions or tonicisations, yet as we have covered, being able to understand the theory behind any given chord sequence helps a bassist create a much stronger walking line. Using dominant chords, and chord extensions, rather than just the key signature of a piece of music, to identify what mode to play, is a much stronger method, and allows for the many diversions away from a home key that Jazz music often takes.