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THEORY AND PRACTICE OF ELECTRIC BASS

THE MOST IMPORTANT THEORETICAL ASPECTS THAT A BASS PLAYER MUST KNOW AND BE ABLE TO PUT INTO PRACTICE

Index:

Preface

This method for electric bass guitar is mostly a personal collection of exercises in instrumental technique, which I wanted to make accessible to everyone, adding, for example, the tablature for each score, so that even those who do not read, or those who are still new to reading music, can still perfectly understand and can correctly perform each exercise proposed.
The first part of the text deals with modern theory and harmony, specifically for the bass guitar, where you will find a lot of useful information, both for understanding certain topics and for understanding how to put them into practice.
The second part, on the other hand, is entirely made up of practical exercises, from which you will be able to take ideas for creating your own, designed for both the right and left hand. You will find exercises for finger independence, for 'clean' touch and speed of the right hand, chords, and much more.
For each exercise you will also find a corresponding audio track, with which you can listen to the correct execution, at different speeds. This didactic manual is not intended for beginners, but for those who have already mastered the instrument and want to improve and advance in level.
I am waiting for you!!!

Audio example! - https://we.tl/t-AApMgbqn0J

Chapter 3: Extended chords

If we superimpose on a triad the highest note (the fifth) a further note distant by an ascending third, we obtain a quadriad, i.e. a chord consisting of 4 notes.
We can add further notes (always distant by an ascending third) to form 13th chords, i.e. chords containing 7 notes, all placed by ascending thirds. In this tabular chart I have included (again in G), the main chords that you can find in any musical genre. Although a bass player is unlikely to play chords with more than 3 voices (unless you play basses with 5 or more strings), it is essential to know them in order to understand which notes you can play over each one.

CHORD	ROOT	3th	5th	7th	9th	11th	13th
Gmaj7	G	B	D	F♯			
Gm7	G	B♭	D	F			
G7	G	B	D	F			
Gm7(♭5)	G	B♭	D♭	F			
G°7	G	B♭	D♭	F♭			
G9	G	B	D	F	A		
G11	G	B	D	F	A	C	
G13	G	B	D	F	A	C	E
G6	G	B	D				E
G6/9	G	B	D		A		E
G(add9)	G	B	D		A		
G(add11)	G	B	D			C	
Gm(maj7)	G	B♭	D	F♯			
Gm9	G	B♭	D	F	A		
Gm11	G	B♭	D	F	A	C	
Gm13	G	B♭	D	F	A	C	E
Gm6	G	B♭	D				E
Gm6/9	G	B♭	D		A		E
Gm(add9)	G	B♭	D		A		
Gmaj9	G	B	D	F♯	A		
Gmaj11	G	B	D	F♯	A	C	
Gmaj13	G	B	D	F♯	A	C	E
G7(sus4)	G		D	F		C	
G7(sus2)	G		D	F	A		

Chapter 4: Knowledge of the entire bass fretboard

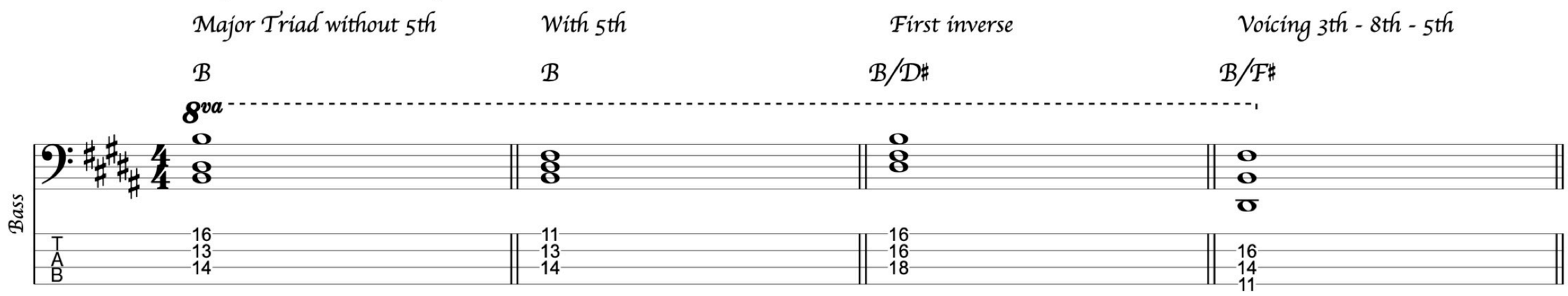
Various possible positions and fingerings for each type of arpeggio and scale will be shown below. It is essential not to get stuck on just one possibility, this would limit you greatly. Instead, you should know the fretboard perfectly and be able to use it in its entirety. I have often met, and still meet, colleagues and student bass players who, when I ask them to play me any arpeggio (triad, seventh arpeggio, etc.), always play it only in one way. If I then ask them, for example, to play the same thing with a different fingering, and on several octaves, they get confused and lose 'orientation' on the fretboard. This happens because unfortunately the vast majority of us string players (mostly bass players and guitarists) exploit the 'geometry' of the instrument. Who makes us study arpeggios and scales on the entire fretboard, when with one position and fingering, we can play practically anything?
Let me give you a simple example. Let's assume that you are doing a solo, say in A. You are creating beautiful phrases using the notes of the arpeggio, but after a while you want to change octave, and go up into the high range of the instrument. Mind you, it changes everything, many of you will struggle.
This is one of the main reasons why in all my teaching methods and all my lessons, I push hard to get students and colleagues to 'break away' from geometries (boxes, or whatever they're called) and start thinking about intervals, various possibilities, studying arpeggios and scales in both ascending and descending directions, etc., etc.
At first, it seems like a lot of unnecessary and, above all, insanely boring work, but, if you hang in there, you will understand this in time.

Let's now look at fingerings and arpeggio positions on the various triads and extended chords up to the seventh (examples in A).

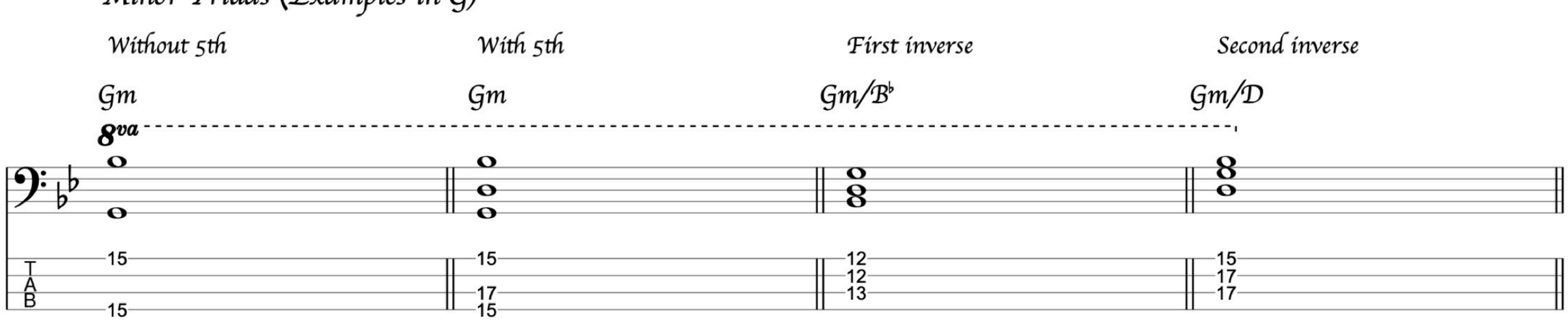
Chapter 5: Chords on bass

As mentioned above, a bass player with a 4-string is unlikely to play chords with more than 3 notes. Much more frequently, simple bichords (two notes) are used. Below I will show you the correct fingering (with various possibilities) for the main chords. Remember, if you have to make a choice of notes to play on each chord, you generally omit the fifth.

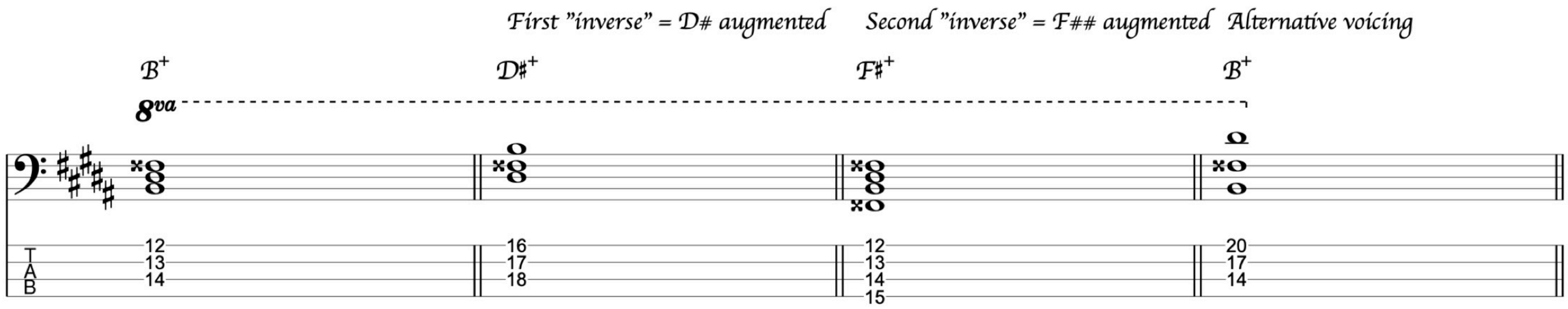
Major Triads (Examples in B)



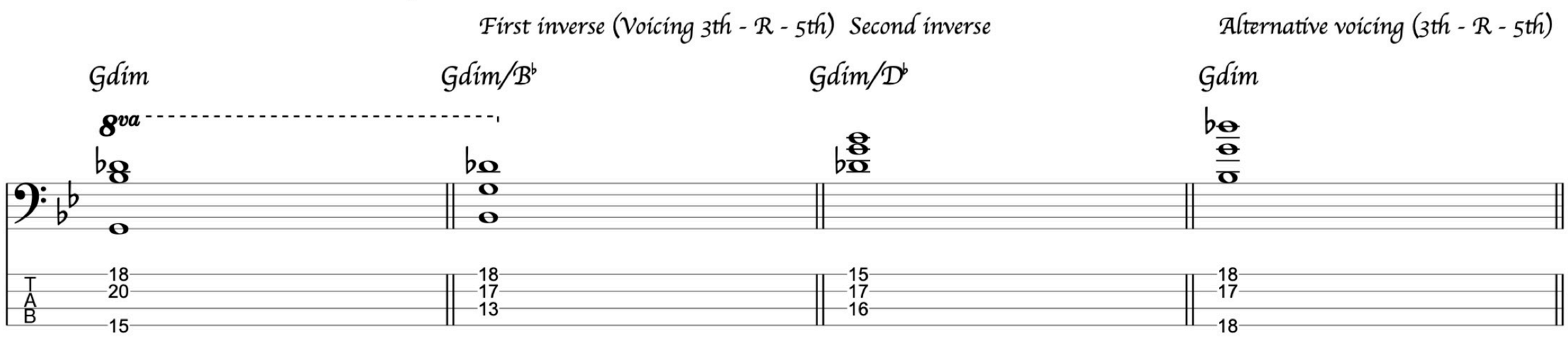
Minor Triads (Examples in G)



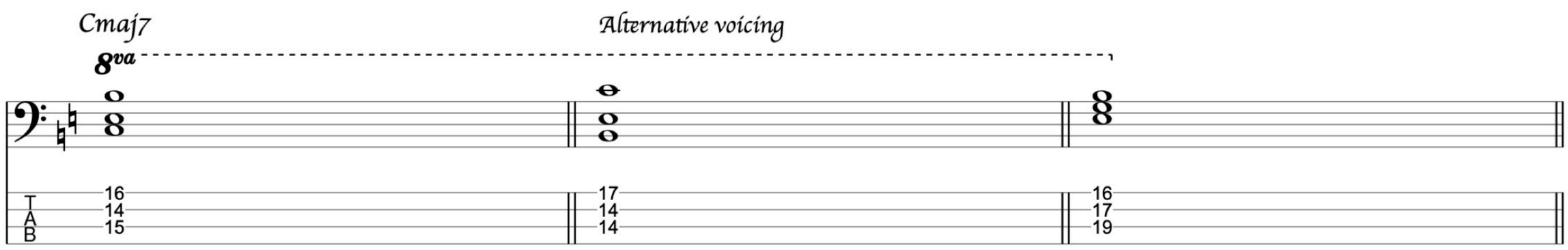
Augmented Triads (Example in B)



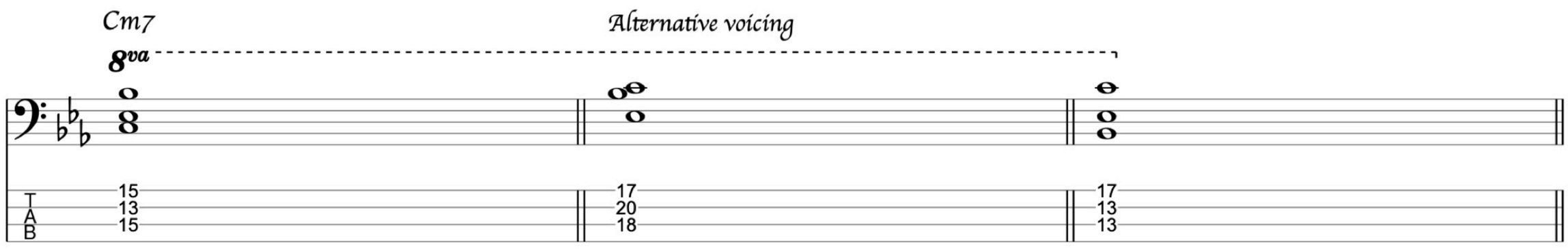
Diminished Triads (Examples in G)



Major 7th chords (Examples in C)



Minor 7th chords (Examples in C)



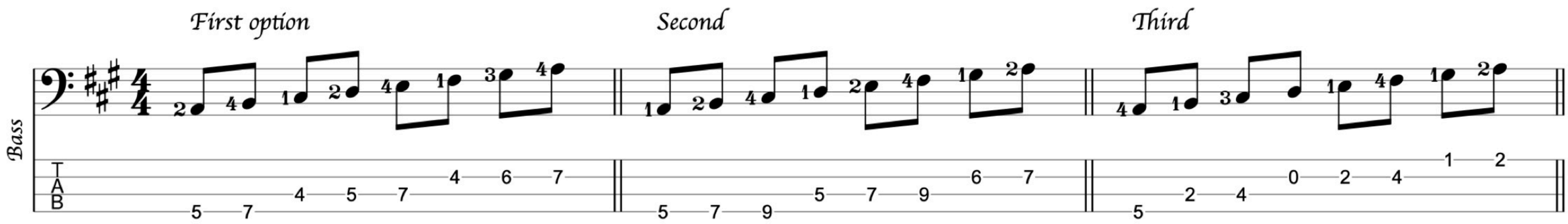
Major scale and Relative Modal Scales

Major scale (or Ionian)

First option

Second

Third

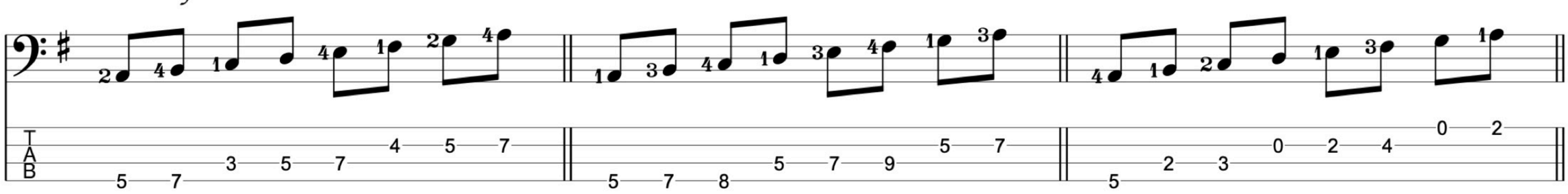


Dorian scale

First option

Second

Third

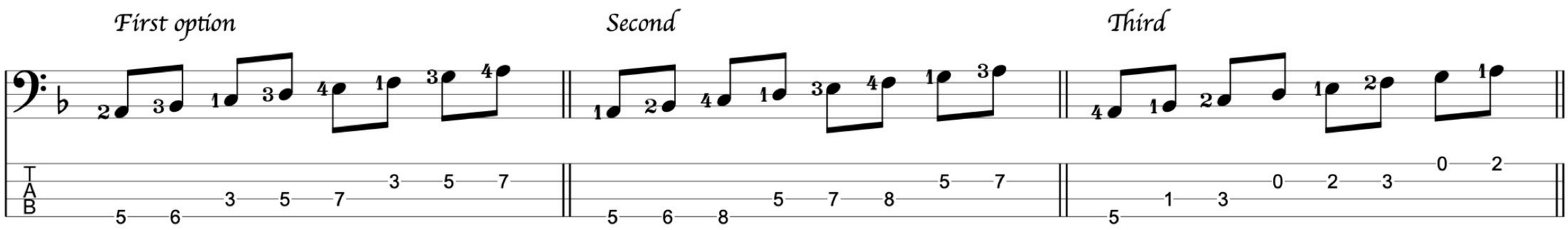


Phrygian scale

First option

Second

Third

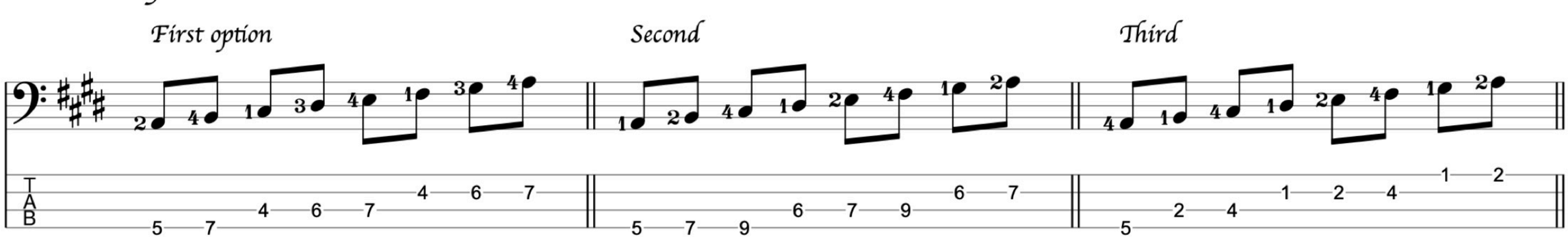


Lydian scale

First option

Second

Third

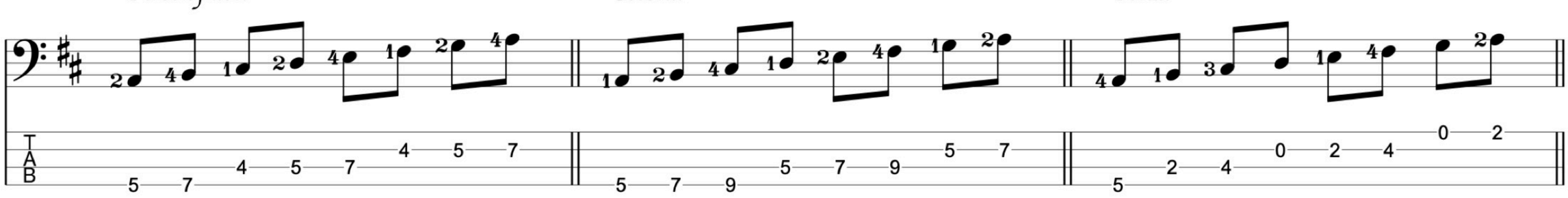


Mixolydian scale

First option

Second

Terza

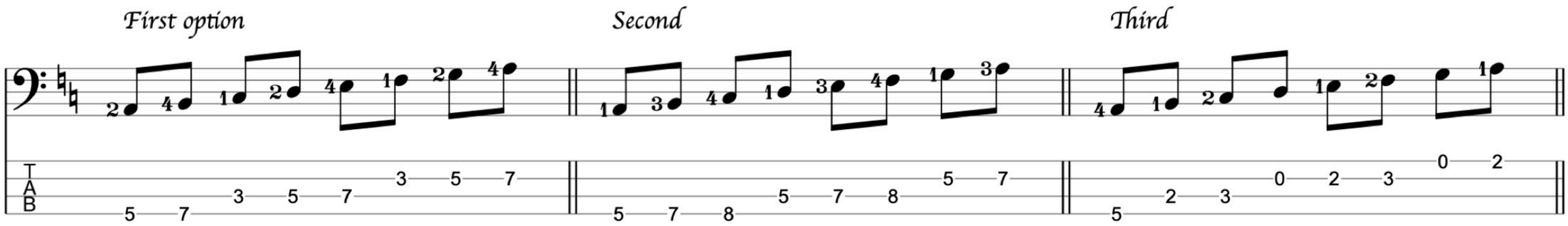


Aeolian scale

First option

Second

Third

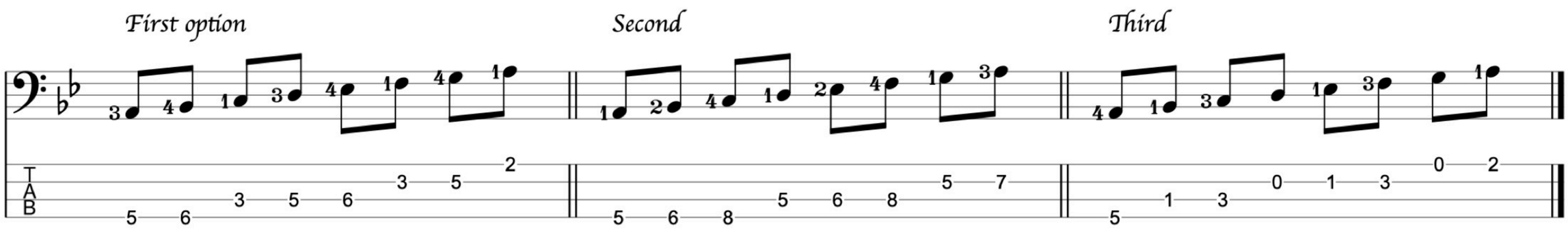


Locrian scale

First option

Second

Third



Chapter 9: The main harmonic progressions

Just as we have said for intervals (i.e. all existing music is composed of a series of intervals), so too with regard to harmony, we are unlikely to find contexts where everything revolves around a single chord (they do exist, I would premise). A piece, a suite, a song, etc., etc., are almost always composed of chord successions, or cadences. Fundamental to a good musician is to become familiar with the most commonly used progressions, and to study them in every possible way and form. Let's take a banal (but not too banal) example. You find yourself in front of this harmonic succession
Gmaj7 | Em7 | Am7 | D7 |
We are clearly in the key of G major, so let's talk about progression
I - Vim - IIm - V7. My advice is to create a simple backing track with these chords (and obviously then change key) and study them, as I said, from different angles. We can study various types of accompaniment, improvisation, melodies, walking etc etc. In this way, as well as getting the sound of such a progression into your ears, every time you encounter one you will be very very comfortable, try it!
I will now mention what are (in my opinion) the two most important cadences (we can also call them progressions), especially in Jazz (but not only).

Major II -V - I

The II - V - I progression is a chord sequence characteristic of many musical forms, widely used in tonal classical music and jazz compositions. The letters represent (in Roman numerals) the chords present, i.e. second degree (preparation), fifth (dominant, tension) and first (root, resolution).
It is essential to learn this subject, not only for those wishing to embark on a jazz path, but for any musician.

The II - V - I major is composed, (with exceptions), of an m7 chord, a dominant 7th chord and a maj (or maj7) chord. Example of a II - V - I major of G:
Am7- D7- Gmaj7

<u>Hints of improvisation</u>

Here are a number of possibilities (these are only suggestions) that can be used on each degree of the progression (e.g. II - V - I major in G).

Over Am7 chord:

Am7 arpeggio (A - C - E - G) = R - 3m - 5 - 7m
A Dorian scale (A - B - C - D - E - F# - G) = R - 2 - 3m - 4 - 5 - 6M - 7m
C major pentatonic / A minor pentatonic (C - D - E - G - A) = 3m - 4 - 5 - 7m - R
G major pentatonic / E minor pentatonic (G - A - B - D - E) = 7m - R - 2 - 4 - 5

60 - 100 Bpm

F♯m11 Gmaj7(♯11)

G♯m11 Amaj7(♯11)

B♭m11 Bmaj7(♯11)

Cm11 D♭maj7(♯11)

Dm11 E♭maj7(♯11)

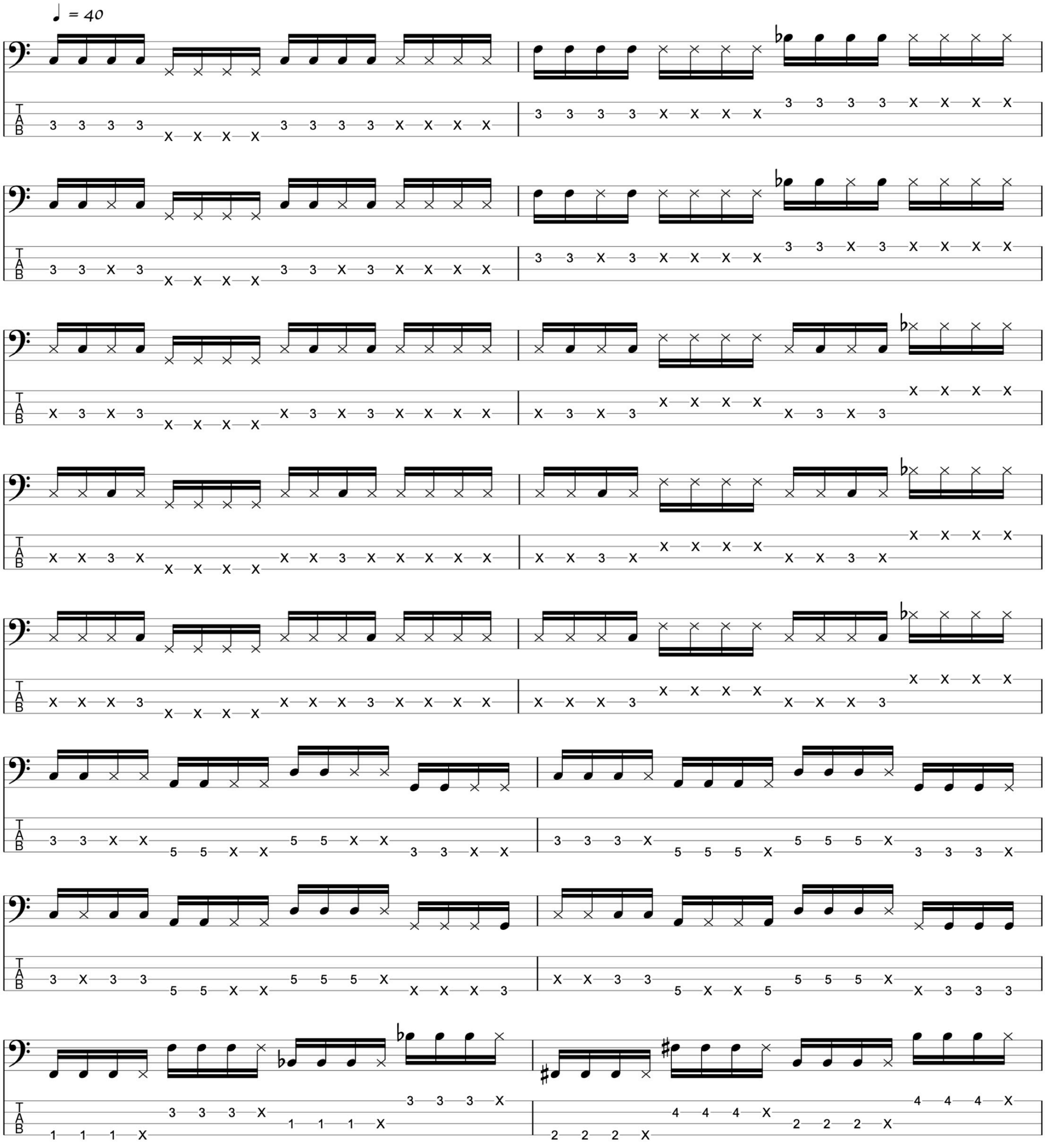
Em11 Fmaj7(♯11)

F♯m11 Gmaj7(♯11) Etc.

Ghost notes

Ex 30

Now a series of exercises to perfect the technique of ghost notes, fundamental in genres such as funk, but usable in any context.



Chapter 11: Natural Harmonics on the Bass

A few theoretical hints:

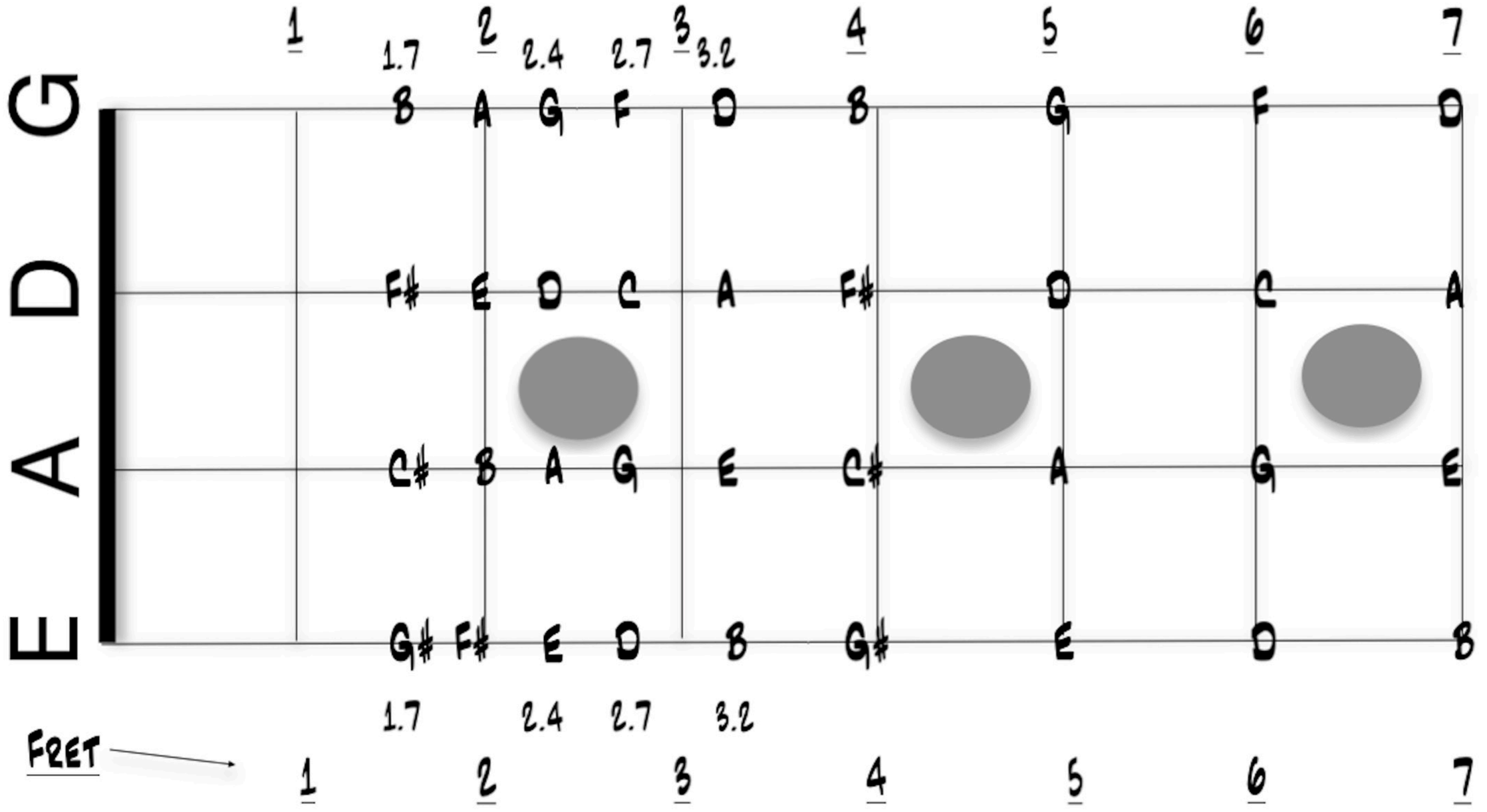
Attempting to simplify the explanation as much as possible, we can state that natural harmonics are in practice a series of sounds with a precise pitch (multiples of a base note) and correspond to the natural frequencies of the harmonics of a vibrating string. When a sound is created by the vibration of any body, it is not actually a single sound, but a sum of sounds that are multiples in sequence of the base note. These sounds, however, differ from each other in pitch (higher or lower) and volume (or intensity). To sum up, then, to the 'fundamental' sound are added others: which are precisely the harmonics. They determine the timbre of an instrument.
Let's take an example, if a string of length X emits a C, the same string also vibrates with an intensity at double the frequency (equal to length X/2, second harmonic), emitting a C at a higher octave, and so on.

In the following tables, I have tried to shed some light on natural harmonics. This is another important topic, as a skilful use of these elements can enrich and make our bass lines and/or compositions more interesting. Often, however, one finds incorrect information on the net. Consult this table to get a 'map' of where you can find the harmonics on a common 4-string bass. In the left-hand column, I have indicated the fret on which you must place the finger of your left hand. Where you see numbers written with the decimal fraction, it means that the harmonic is not precisely above the fret bar, but exactly at a distance, indicated with the decimal, precise. In the second column, the interval created by playing the harmonic with respect to the string on which it is played is indicated, and, with the number in brackets, how many octaves away (again with respect to the note of the relevant string) its pitch corresponds to. The other columns indicate the note of the harmonic for each fret on each string.

To play natural harmonics, place a finger of your left hand lightly on the string at the exact point where the note you want to play is located, and pluck the string normally with your right hand. Tip: To make the harmonic 'come out' better, open the tone and possibly try to play with the bridge pickup open, if you have one!

FRET	INTERVAL RELATIVE TO THE OPEN STRING	NOTE PRODUCED ON E STRING	NOTE PRODUCED ON A STRING	NOTE PRODUCED ON D STRING	NOTE PRODUCED ON G STRING
1.7	3M (3 octaves)	G♯	C♯	F♯	B
2	2M (3 octaves)	F♯	B	E	A
2.4	Same note (3 octaves)	E	A	D	G
2.7 (6)	7m (3 octaves)	D	G	C	F
3.2	5 (2 octaves)	B	E	A	D
4 (9)	3M (2 octaves)	G♯	C♯	F♯	B
5	Same note (2 octaves)	E	A	D	G
6 (2.7)	7m (3 octaves)	D	G	C	F
7	5 (1 octave)	B	E	A	D
9 (4)	3M (2 octaves)	G♯	C♯	F♯	B
12	Same note (1 octave)	E	A	D	G

From the 12th fret onwards, the harmonics are repeated identically (same notes and same octaves).



FRET → 1 1.7 2 2.4 2.7 3 3.2 4 5 6 7