The Diamond Method

Rationale

The diamond method is a natural scale grids visualization method for guitar in standard tuning. The diamond method helps finding the right notes for any common western tonality based on the natural scale. It is based on the visualization of figures on the guitar fretboard. Grid figures visualized on guitar fretboard indicate which are the natural scale notes that can be used to form chords, arpeggios or even to improvise.

This method only covers the use of the natural scale and all its relative forms, which includes major degrees and chords (e.g. FMaj7), minors (Dm7), the dominant (F7), and the half-diminished (Em7b5).

In order to use the diamond method, knowledge of the natural scale and all its grades is required (that is: what is the natural scale (for example, C, D, E, F, G, A, B), what are its grades (e.g. the fourth degree is known as the Lydian mode, and differs from the first degree on its augmented fourth; the reader is required to know what are the alterations that make each scale), and what is a modulation. Those are not difficult topics. Some basics are introduced in this text.

Much of popular and classical Western music is based on the structure of the major and minor scales — a pattern of seven notes (like C, D, E, F, G, A, B)— regardless of the starting note (key). By mastering the diamond method, the user can improvise (including jazz) and have most of the theoretics solved. Of course, the user needs the playing technique, which is out of the scope of this text (knowing how to make a shoe is not the same as using your hands to make a shoe, that is, you still need to learn how to use your fingers; I will show you how to make a shoe, but it is you that should practice and apply the theory to produce the actual shoe).

Basics

When the tone of a song is CMaj, <u>the white keys on the piano</u> are used to form chords, arpeggios or develop improvisations. However, if the tonality is DMaj, some black keys are required and some white keys are unused. Learning the right scales on the piano has some difficulty due to the structure of the notes on the instrument, in this case, the piano.

However, in the guitar, there are no white and black positions. In order to learn fingerings on the piano, many people emulate the idea of the black and white keys on the guitar:

E	F		G		A		B	C		D		E	F		G		A		B	C		D
B	C		D		E	F		G		A		B	C		D		E	F		G		A
G		A		B	C		D		E	F		G		A		B	C		D		E	F
D		E	F		G		A		B	C		D		E	F		G		A		B	C
A		B	C		D		E	F		G		A		B	C		D		E	F		G
E	F		G		A		B	C		D		E	F		G		A		B	C		D

The problem of such idea is that, again, like on the piano, this fingering allows only to play songs in the CMaj tonality.

But the guitar has an advantage that the piano has not: shifting any amount of semi-tones implies just sliding the hand for the same amount of frets.

With the previous method, just shifting the markings does not work. Of course, we can try to shift the black and white markings, but that is very difficult to memorize.

Here's the key to this method: what if we can find a permanent structure that describes such white and black markings, and we use such structure in any position?
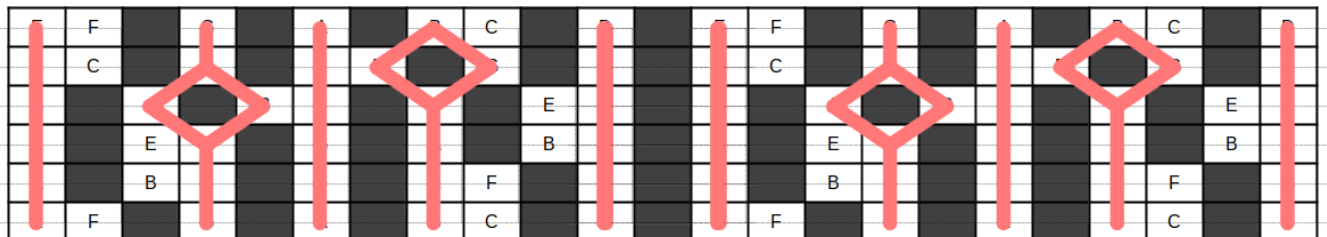

Notice that some notes are still missing, and we'll deal with them later.

However, this structure is easy to memorize, allowing playing in most tonalities on western music, just by shifting the shape to the right or to the left.

So, that's the basic idea. Now, let's address it in a formal way.

The Diamonds

We'll call this structure «the diamonds» simply because it reminds of such shapes.
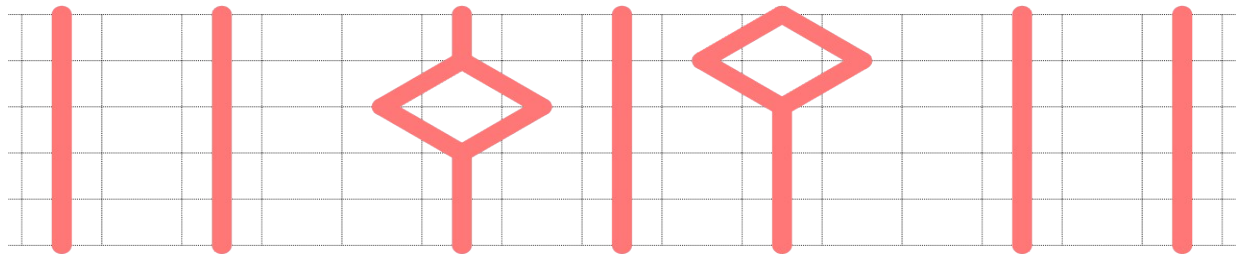
Let's examine the structure

- The diamonds are to be shifted to the right or to the left of the fretboard, as needed (to the left? to the right? how many frets? we'll explain that later). A 12 frets shift (which is the same as 12 semitones shift or 6 whole tones shift) makes the pattern repeat, infinitely.

- There are two parallel lines that repeat every 12 semitones. We'll call this lines *the mixolydian lines:*
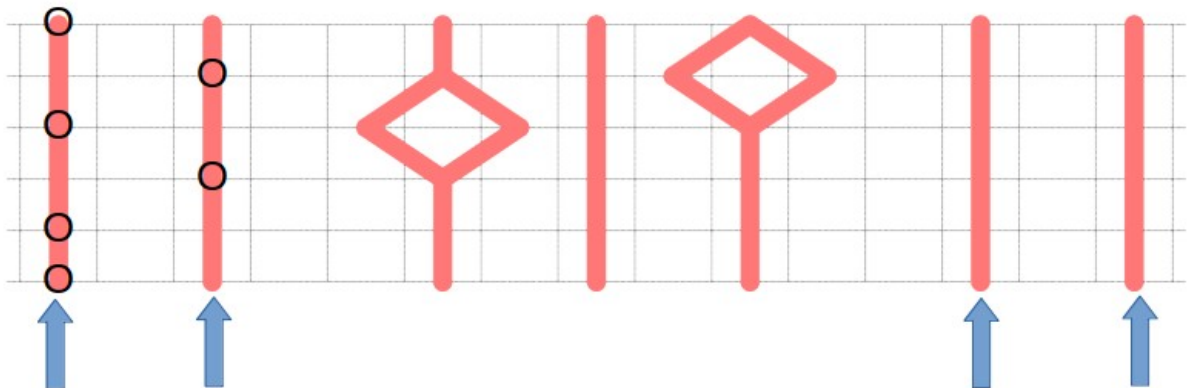
- Notice that a V7 chord (with the tonal note on the 5st string) is drawn on the image; that is a dominant chord, which is the fifth degree on the natural scale, that is, the chord built on notes 1st, 3rd, 5th and 7th of the Mixolydian mode. That's why the lines that contain such chord are called the *mixolydian lines*.

- There is a single line, **_the dorian line_**, to the left and/or to the right of the mixolydian lines, which is always at a distance of 5 semitones (five frets):

5 semitones   5 semitones
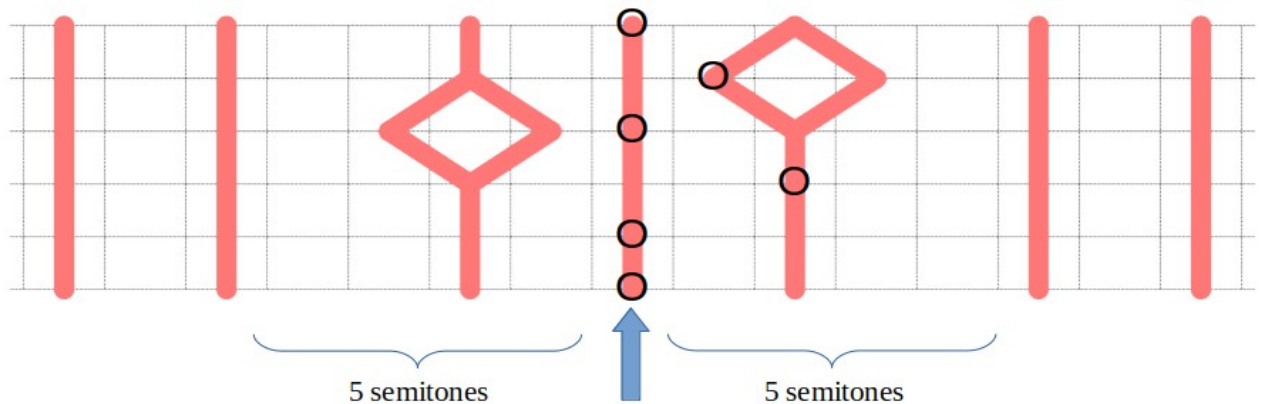
- That is, **_the mixolydian lines are five frets to the left or to the right of the dorian line_**.

- In addition, a iim7 chord (with the tonal note on the 5st string) is drawn on the image; that is a minor chord, which is the second degree on the natural scale, that is, the chord built on notes 1st, 3rd, 5th and 7th of the Dorian mode. That's why the line that contain such chord is called the **_dorian line_**.

- **_The diamonds_** are two frets (one tone) to the left and to the right of the **_dorian line:_**
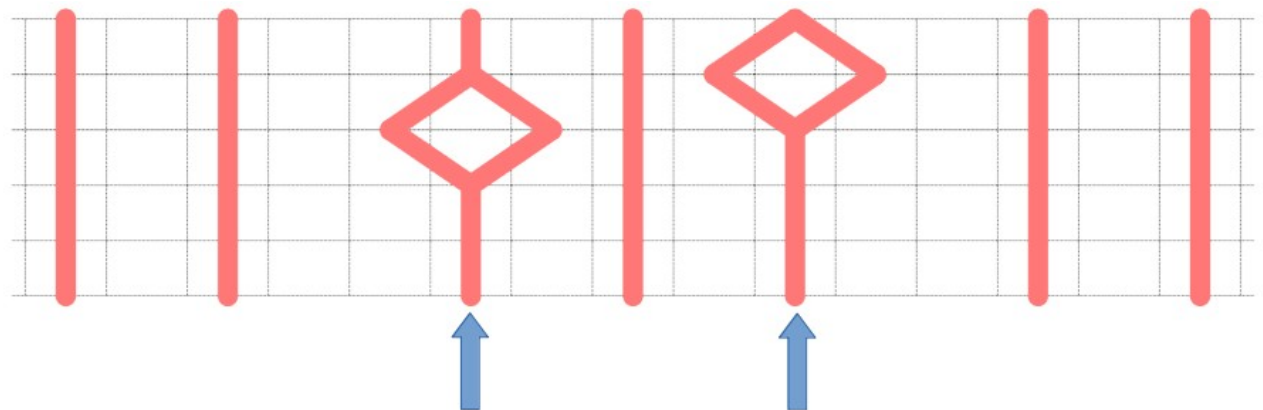
- The left diamond would be a line if it wouldn't miss the note on the third string. That is, **_the left diamond is centered on the third string_**.

- The right diamond would be a line if it wouldn't miss the note on the third string. That is, **_the left diamond is centered on the second string_**.

- As said, some notes are missing. This is because I recommend to memorize the diamonds in two stages; first, the structure above. Then, when you master that, learn the missing shapes:
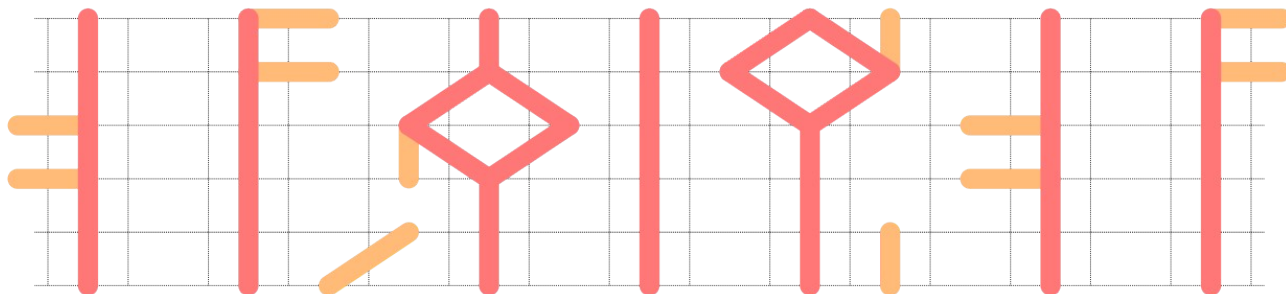
As you see, the missing shapes are very easy to learn:

- The mixolydian right line has two notes to the right, on strings 1 and 2.

- The mixolydian left line has two notes to the left, on strings 3 and 4.

- The right diamond has an upwards queue, far from the dorian line.

- The left diamond has a downwards queue, far from the dorian line.

- There are two weird lines on strings 5 and 6. Use whatever notion to learn them. Or just don't. A couple of missing notes will not harm your playing.

Now, we've learned where are the white keys on the guitar, and, better yet, how to transpose (just shift the structure to the right or to the left by the number of semi-tones you want to transpose).

Applying The Method

Two steps are necessary to apply the method:

1. Identify the tonality and the mode

2. Find the offset (number of semitones to shift the diamonds pattern)

Let's see it with an example.

Mack The Knife

Mack The Knife is a very simple song, because it doesn't have any modulations: all the song is played on a single tone. This means that once we've found the position of the diamonds on the fretboard, all the song can be played using the same position.

1. Finding the tonality and mode

Finding the tonality and modulations of a song is not an easy task, and it is not the goal of this method. It requires some experience and knowledge of music theory. Anyway, we'll present here the basic concepts to find a tonality. For technical reasons, it is better to use chords with the 7th degree (that is, tonic, 3rd, 5th and 7th degrees).

The *natural scale* has the following degrees and diatonic chords:

Step	1st	2nd	3rd	4th	5th	6th	7th
Degree*	I	ii	iii	IV	V	vi	vii
Chord	IMaj7	ii m7	iii m7	IVMaj7	V7	vi m7	vii m7b5
Mode	Ionian	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian

* Major degrees are in UPPERCASE, minor degrees are in lowercase.

The following table is provided for a simple reference of the reader, however, this is something any medium-level musician knows by heart.

Tonic	I	ii	iii	IV	V	vi	vii
			Degree				
C	**CMaj7**	**Dm7**	**Em7**	**FMaj7**	**G7**	**Am7**	**Bm7b5**
Db	DbMaj7	Ebm7	Fm7	GbMaj7	Ab7	Bbm7	Cm7b5
D	DMaj7	Em7	F#m7	GMaj7	A7	Bm7	C#m7b5
Eb	EbMaj7	Fm7	Gm7	AbMaj7	Bb7	Cm7	Dm7b5
E	EMaj7	F#m7	G#m7	AMaj7	B7	C#m7	D#m7b5
F	FMaj7	Gm7	Am7	BbMaj7	C7	Dm7	Em7b5
Gb	GbMaj7	Abm7	Bbm7	CbMaj7	Db7	Ebm7	Fm7b5
G	GMaj7	Am7	Bm7	CMaj7	D7	Em7	F#m7b5
Ab	AbMaj7	Bbm7	Cm7	DbMaj7	Eb7	Fm7	Gm7b5
A	AMaj7	Bm7	C#m7	DMaj7	E7	F#m7	G#m7b5
Bb	BbMaj7	Cm7	Dm7	EbMaj7	F7	Gm7	Am7b5
B	BMaj7	C#m7	D#m7	EMaj7	F#7	G#m7	A#m7b5

As we can see, the first chords of ***Mack The Knife*** are CMaj7, Dm7 and G7, which are coincident with the first line, the tonic being **C**, a second minor in **D**, and a dominant in **G**. In general, since there is a single dominant in each line, finding the dominant should be enough to find the tonality (however, this is rarely the case, since functional harmony makes use of dominants in multiple ways). This means that

if we've found an **A7** chord, the tonality should be **D Major**. In this case, since we've found a **G7** chord, the tonality can be **CMaj**. Let's explore the remaining chords in Mack The Knife:

CMaj7, Dm7, G7, CMaj, Am7, Dm7, G7, CMaj7, etc.

As seen, all the chords correspond to the C Major tonality. So, we've performed the first step to use the diamonds.

This might seem complex and heavy, but with some knowledge of musical theory, this becomes quite simple, and all operations become instantaneous. It is not due to memorizing things, but due to the understanding of musical theory.

2. Finding the offset

Having the tonality (**CMaj** in the case of this version of **Mack The Knife**), we just need to find where would the diamond patterns lay over the fretboard. This is the ruleset:

Rule1: The tonic on the 5th string holds the left diamond

Rule2: The tonic on the 4th string holds the left mixolydian line (not used here)
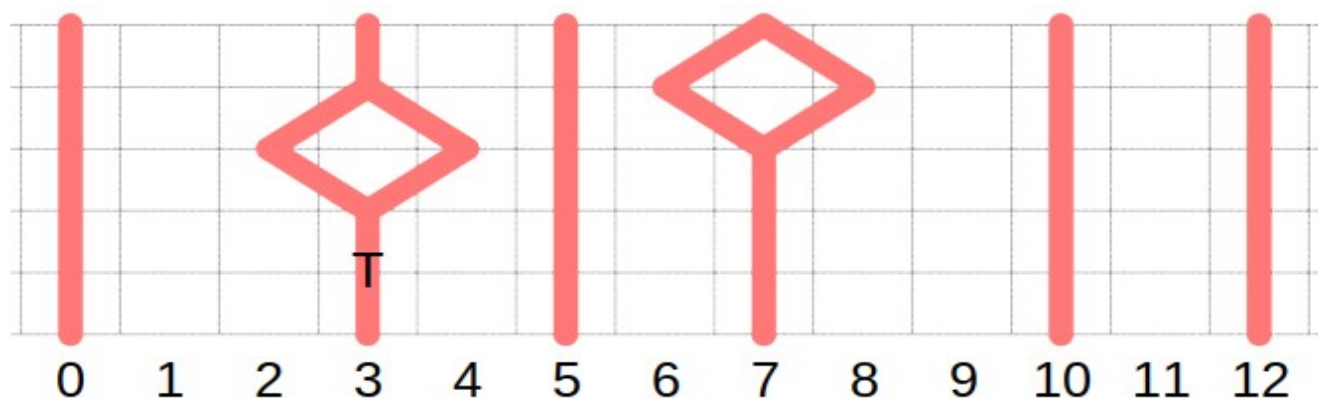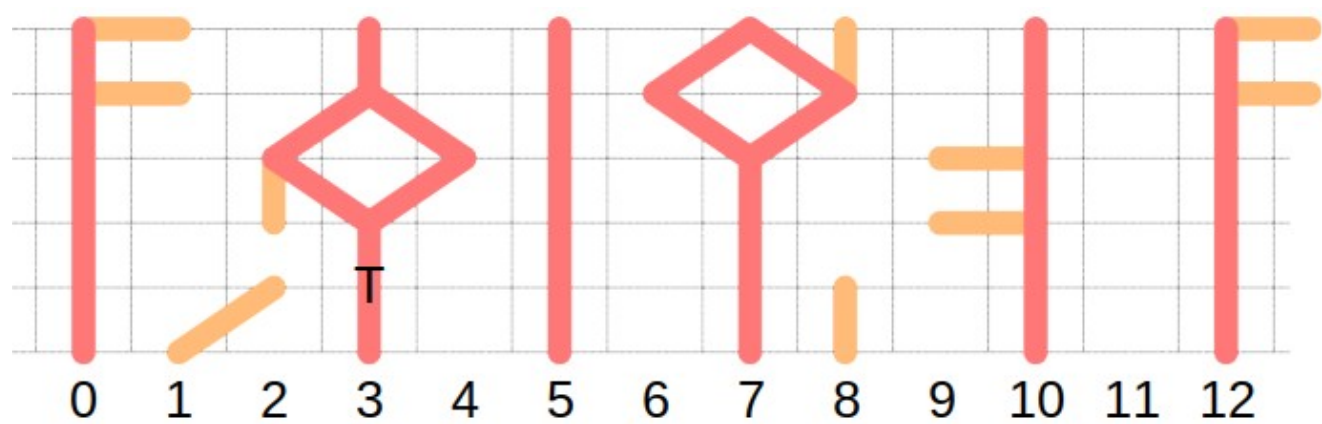

As seen on the image, the fifth string, 3rd fret contains the tonic, and it should contain the left diamond.

Voilà. Once the position of the diamonds has been found, try to visualize the diamond patterns over the fretboard to build your lines.

Once you master this, use the complete pattern:

0 1 2 3 4 5 6 7 8 9 10 11 12

Mack The Knife II (transposed)

This version of *Mack The Knife* has been transposed for the exercise.

1. Finding the tonality and mode

Since we see a **Db7** chord, we suspect it could be the dominant of **F#Maj7** or **GbMaj7**. When comparing the chords with our table, we find that all correspond to **GbMaj7**:

	Degree						
Tonic	**I**	**ii**	**iii**	**IV**	**V**	**vi**	**vii**
C	CMaj7	Dm7	Em7	FMaj7	G7	Am7	Bm7b5
Db	DbMaj7	Ebm7	Fm7	GbMaj7	Ab7	Bbm7	Cm7b5
D	DMaj7	Em7	F#m7	GMaj7	A7	Bm7	C#m7b5
Eb	EbMaj7	Fm7	Gm7	AbMaj7	Bb7	Cm7	Dm7b5
E	EMaj7	F#m7	G#m7	AMaj7	B7	C#m7	D#m7b5
F	FMaj7	Gm7	Am7	BbMaj7	C7	Dm7	Em7b5
Gb	**GbMaj7**	**Abm7**	**Bbm7**	**CbMaj7**	**Db7**	**Ebm7**	**Fm7b5**
G	GMaj7	Am7	Bm7	CMaj7	D7	Em7	F#m7b5
Ab	AbMaj7	Bbm7	Cm7	DbMaj7	Eb7	Fm7	Gm7b5
A	AMaj7	Bm7	C#m7	DMaj7	E7	F#m7	G#m7b5
Bb	BbMaj7	Cm7	Dm7	EbMaj7	F7	Gm7	Am7b5
B	BMaj7	C#m7	D#m7	EMaj7	F#7	G#m7	A#m7b5

2. Finding the offset

Having the tonality (**GbMaj7** in the case of this version of **Mack The Knife**), we just need to find where would the diamond patterns lay over the fretboard. We use the rules:

Rule1: The tonic on the 5th string holds the left diamond

Rule2: The tonic on the 4th string holds the left mixolydian line