

Music Theory

A Pragmatic Cheat Sheet for Blues Guitar

Introduction – **WORK IN PROGRESS!**

These are basically the condensed notes of my past googling and YouTube sessions. Writing it down in a structured form helps me to memorize.

Depth and scope are defined by my personal current knowledge and needs.

‘Pragmatic’ means that

- I mostly avoid standard music notation in favor of tablature (‘tabs’)
- I am German, but write in English, since it is easier to transfer from my sources.
- Scales use international notation (A, A#/B \flat , B, C, ...) instead of German convention (A, A#/B, H, C, ...).
- I focus on stuff that helps with playing Blues on guitar.

A recent version can be found here: <https://wwWendt.de/stuff/music-theory>

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Scale Basics

The **chromatic scale** has 12 semitones (half tone steps) using seven note names ‘A’ to ‘G’. Step 13 is the same as the starting note, just one octave higher.

With two exceptions (E..F and B..C) we have one half tone between two whole notes. For example there is a C# (,C sharp’) between C and D. This semitone can also be called D_b (,D flat’).

By convention we often start with ,C’:

Chromatic No.	1	2	3	4	5	6	7	8	9	10	11	12	13 /1
Note name	C	C# D _b	D	D# E _b	E	F	F# G _b	G	G# A _b	A	A# B _b	B	C



The C major scale is not special, but it is used quite often in western music and it does not have accidentals (flats or sharps). Let’s accept that C major is the reference scale for natural tones and there is a semitone between E & F and B & C and not elsewhere. See here for an explanation [why the western music has 12 notes.](#)



The chromatic number is not important, we can forget about it after this chapter. What matters is the ‘function number’, also called ‘scale degree’ (see below).

Major Scales

The **major scale** of our western music always has seven notes with fixed intervals, so we skip five half tones.

Those intervals are always:

“whole – whole – half – whole – whole – whole – half”

This results in seven notes, that we can give function numbers 1 to 7 (sometimes using roman notation I to VII).

For example, the **C Major Scale** starts with ‘C’:

Chromatic No.	1	2	3	4	5	6	7	8	9	10	11	12	13 /1
Note name	C	C# D _b	D	D# E _b	E	F	F# G _b	G	G# A _b	A	A# B _b	B	C
Interval	whole		whole		half	whole		whole		whole		half	
Function Number	1		2		3	4		5		6		7	8 /1
Function Number (roman)	I		II		III	IV		V		VI		VII	I
C Major Scale Note	C		D		E	F		G		A		B	C

The same pattern can be applied to all major scales, simply by starting with the scale's root note. So we shift the chromatic notes, but keep the order and intervals.

For example **E Major Scale** starts with 'E':

Chromatic No.	5	6	7	8	9	10	11	12	1	2	3	4	5
Note name	E	F	F# G _b	G	G# A _b	A	A# B _b	B	C	C# D _b	D	D# E _b	E
Interval	whole		whole		half	whole		whole		whole		half	
Function Number	1		2		3	4		5		6		7	8 /1
E Major Scale Note	E		F#		G#	A		B		C#		D#	E



Why do we call it 'F#' and not 'G_b' in this case?

Because we want the scale to have one instance of every note name 'A' .. 'G':

"E, F#, G#, A, B, C#, D#" reads better than "E, G_b, G#, A, B, D_b, D#".

Minor Scales

Minor scales are constructed using the same pattern as major scales, but the interval sequence is different. Instead of major scale intervals:

"whole – whole – half – whole – whole – whole – half"

we use **Minor Scale intervals** now:

"whole – half – whole – whole – half – whole – whole"



This is the common 'natural minor scale'. There's also a 'harmonic minor scale' and a 'melodic minor scale'. We ignore those here.

For example, the **C Minor Scale** also starts with 'C', but the function numbers 3, 6, and 7 are lowered by one semitone (compared to the major scale):

Chromatic No.	1	2	3	4	5	6	7	8	9	10	11	12	13 /1
Note name	C	C# D _b	D	D# E _b	E	F	F# G _b	G	G# A _b	A	A# B _b	B	C
Interval	whole		half	whole		whole		half	whole		whole		
Function Number	1		2	_b 3		4		5	_b 6		_b 7		8 /1
C Minor Scale Note	C		D	E _b		F		G	A _b		B _b		C



The function numbers also have names:

1 = (perfect) unison, 2 = major second, _b3 = minor third, 4 = perfect fourth, 5 = perfect fifth, _b6 = minor sixth, _b7 = minor seventh, 8 = (perfect) octave

When it comes to Blues, the ‘minor third’ is an important element.

Related Scales

C major is the ‘**parallel major**’ to C minor, obviously, because they both start with the same root node and only use different intervals from there.

Much more interesting is the fact that there is a ‘**relative major/minor**’ relationship.

For example, the **A Minor Scale** is constructed like this:

Chromatic No.	10	11	12	1	2	3	4	5	6	7	8	9	10
Note name	A	A [#] B _b	B	C	C [#] D _b	D	D [#] E _b	E	F	F [#] G _b	G	G [#] A _b	A
Interval	whole		half	whole		whole		half	whole		whole		
Function Number	1		2	_b 3		4		5	_b 6		_b 7		8 /1
A Minor Scale Note	A		B	C		D		E	F		G		A

We can see that the A-minor scale

A – B – C – D – E – F – G

uses exactly the same seven notes as the C-major scale in the same order, only a different starting point:

C – D – E – F – G – A – B



The ‘relative minor scale’ of a major scale is always three semitones lower. For example:

The relative minor scale of C-major is A-minor.

The relative minor scale of A-major is F[#]-minor.

See also Mixing the Minor and Major Scale.

Chords

Standard major chords are ‘triads’, i.e. they consist of three notes from the major scale with the function numbers 1 – 3 – 5:

For C-Major this would be C – E – G

For E-Major this would be E – G[#] – B

Minor scales have a minor third, so the triads have this as well (1 – _b3 – 5):

For C-Minor this would be C – E_b – G

For E-Minor this would be E – G – B



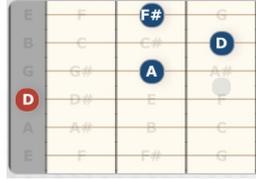
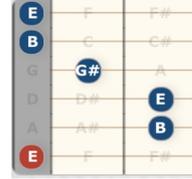
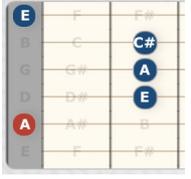
Major chords are written as capital letter (the root note):

C major: ‘C’, F-sharp major: ‘F[#]’.

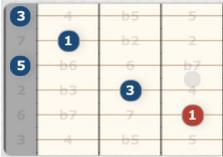
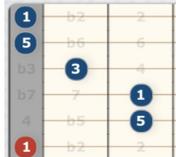
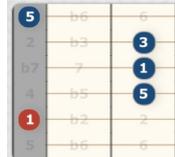
Minor chords use a lower case letter ‘m’:

A minor: ‘Am’, E-flat minor: ‘E_bm’

The root note of the triad is normally played as the bass (i.e. as lowest string). For this reason, we don't play the open E-string for the A chord or the open A-string for the D chord, even though these notes are part of the triad.

C:	D:	E:	A:
			

Since we often shift patterns across the fretboard, it helps to think in intervals:

			
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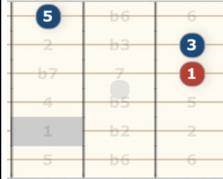
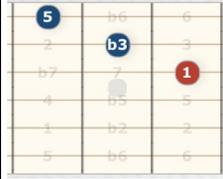
Chords on the high strings

TODO: See major triads across strings: <http://www.editor.guitarscientist.com/view/350>

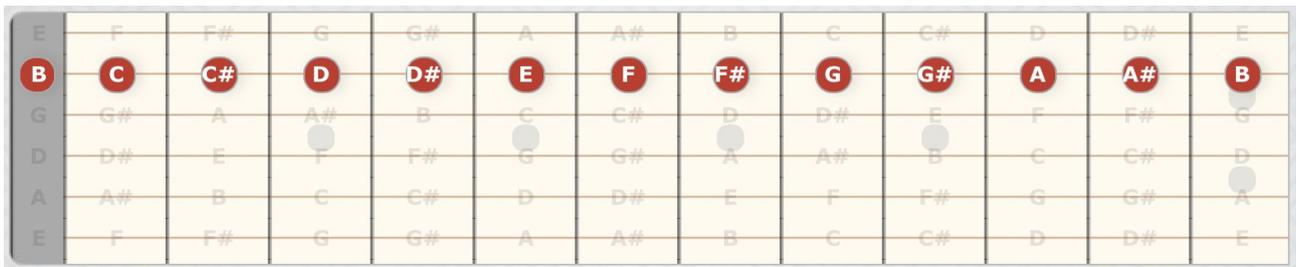
Using the highest three strings, we may find a chord

Root note on the G string: Use the A-Shape

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

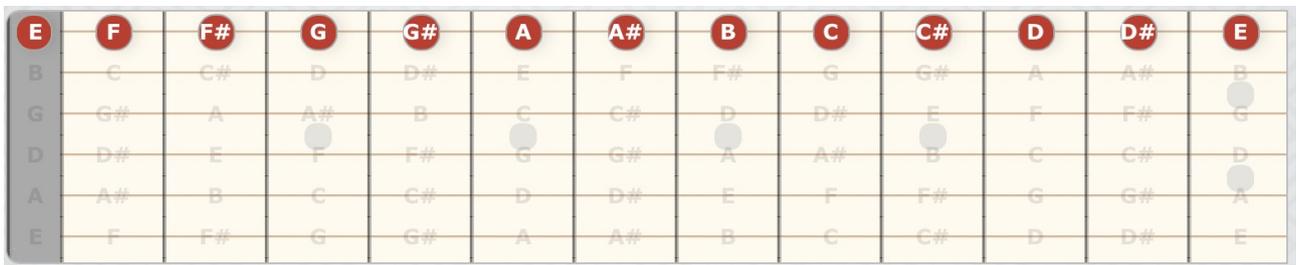
	Major	Minor
		

Root note on the B string: use the 'D'-Shape



	Major	Minor

Root note on the e string: Use the 'E'-Shape



	Major	Minor

Slash Chords and Inversions

Ordinary chords, but the root note is *not* played as bass note.

For example the C major chord is C – E – G, normally with C played as bass note.

If we play E as lowest note, it is called 'C over E' or 'C/E' (hence the name 'slash chord').

Most slash chords are an '**inversion**' of the base chord, i.e. the new bass note is already part of the triad.

C/E (C over E):	D/A (D over A)	E/G#	A/E:

C/G:	D/F#	Em/G	Am/C

TODO: 1st Inversion of A-chord (A/C#) can be played as variant of A with index finger barring (it can also be viewed as G-shape A):



Sus Chords

Suspended chords are triads with a modified middle note, so they are neither major nor minor:

- Sus2 chord: 1 – 2 – 5, for example
 $C^{\text{sus}2} = C - D - G$
- Minor chord: 1 – \flat 3 – 5, for example
 $C = C - E_{\flat} - G$
- Major chord: 1 – 3 – 5, for example
 $cm = C - E - G$
- Sus4 chord: 1 – 4 – 5, for example
 $C^{\text{sus}4} = C - F - G$



Tip: find the string that is modified when changing from a major to a minor chord (by lowering it one half step).

If this string is lowered even one more half step than minor, we get the sus2 chord.

If this string is raised one half step above the major chord, we get the sus4 chord.

For example:

	E		A		D
--	---	--	---	--	---

Esus4		Asus4		Dsus4	
E		A		D	
Em		Am		Dm	
Esus2		Asus2		Dsus2	

Augmented and Diminished Chords

An **augmented chord** is a major triad with a raised fifth: 1 – 3 – #5.

Written as E+ or Eaug.

Augmented chords want to resolve to the I-chord. Used in blues turnarounds.

A **diminished chord** is a minor triad with a flattened fifth: 1 – b3 – b5.

Written as E° or Edim.

The dim chord is often played as seventh chord 1 – b3 – b5 – 6, which can be viewed as a stack of minor third intervals. Therefore shifting this chord by three frets will result in an inversion of the same chord.



C	C# D _b	D	D# E _b	E	F	F# G _b	G	G# A _b	A	A# B _b	B	C
1		2	b3	3	4	b5	5		6		7	8 /1

See also <https://youtu.be/8ftgt0Ot0pc>

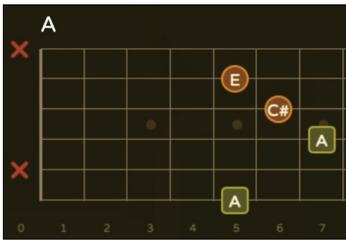
For example:

	E		A		D		C
E		A		D		See Baug below	
E+		A+		D+			
E°		A°		D°			

TODO: Baug can be used in E 1-4-5 turnaround (why?):



TODO: Hendrix-Style E-shape bar chord (low E-string fretted with thumb, A-string muted). For example A chord:



TODO: C7 can be

7th Chords

7th chords use four notes, by adding the 7 from the scale to the triad. There are several flavors, the most common ones are

- **Dominant Seventh chord:**
When we read 'seventh chord', normally this variant is meant:
A major chord with an extra *minor* seventh: 1 – 3 – 5 – \flat 7, e.g.
C⁷: C – E – G – B \flat
E⁷: E – G \sharp – B – D
- **Major Seventh chord:**
A major chord with an extra major seventh: 1 – 3 – 5 – 7, e.g.
Cmaj⁷: C – E – G – B
Emaj⁷: E – G \sharp – B – D \sharp
- **Minor Seventh chord:**
A minor chord with an extra minor seventh: 1 – \flat 3 – 5 – \flat 7, e.g.
Cmin⁷: C – E \flat – G – B \flat
Emin⁷: E – G – B – D
- There are many more variants:
see https://en.wikipedia.org/wiki/Seventh_chord

Power Chords

A chord made of only two notes: 1 – 5 (which is why they are also called ‘five-chords’).

Since a (minor or perfect) third is missing, power chords do not have a key, i.e. are neither major nor minor.

Power chords are often used with distorted guitars, where we have lots of harmonics anyway and triads or four-notes would sound muddy.

Chord Progressions

We can assign a matching chord to every note of a scale. Not all chords of the major scale have a major key though: Some of them are minor or even diminished.

For example the 6-chord is minor, because only then the notes of the chord are part of the scale.

See: <https://www.theguitarlesson.com/guitar-theory/guitar-chords/key-c-major/>

See: <https://youtu.be/6U8-Y7DEzOE>

The I-IV-V Blues, 12-Bar Blues

The I-IV-V is the mother of Blues progressions that uses only three chords. For example for a Blues in A, A would be the 1-chord, D the 4-chord, and E the 5-chord.

TODO:

- A7 – D7 – E7?, E – A – B
- When starting with an E shape Bar chord, like A played as E in fret 5, this is E shape (fret 5) – A shape (fret 5) – A shape (fret 7)
- When starting with an A shape Bar chord, like D played as A in fret 5, this is A shape (fret 5) – E shape (fret 3) – E shape (fret 5)

The Twelve-Bar-Blues uses the I-IV-V progression in this pattern:

I..., I..., IV..., I..., V..., IV..., I..., V...

The Harmonized Major Scale

(Also “Chord degrees from the diatonic major scale”.)

Function Number	1	2	3	4	5	6	7
Key	major	minor	minor	major	major	minor	dim
Degree	I	ii	iii	IV	V	vi	vii°
Example: C Major Scale Chord	C	Dm	Em	F	G	Am	B°
Example: A Major Scale Chord	A	Bm	C#m	D	E	F#m	G#°
Example: E Major Scale Chord	E	F#	G#	A	B	C#m	D#°



A lot of songs are made of these four chords of a scale. Common progressions:

- I – V – vi – IV (e.g. E – B – C#m – A)
- I – IV – vi – V (e.g. E – A – C#m – B)
- I – IV – V (e.g. E – A – B)

The Harmonized Minor Scale

(Also “Chord degrees from the diatonic minor scale”.)

Function Number	1	2	b3	4	5	6	7
Key	minor	dim	major	minor	minor	major	major
Degree	i	ii°	III	iv	v	VI	VII
Example: C Minor Scale Chord	Cm	D°	E _b	Fm	Gm	A _b	B _b
Example: A Minor Scale Chord	Am	B°	C	Fm	Em	F	G
Example: E Minor Scale Chord	Em	F#°	G	Am	Bm	C	D

Blues/Rock Progressions (Mixolydian)

TODO: Using \flat VII in Rock music: <https://youtu.be/eBXaKNAfmHw>

Rock and Blues often use the major scale, because (especially overdriven) the harmonics of a single string already contain the 1, 3, and 5 of that note (so the *major* chord rings in).

BUT typically the VII chord is flattened to make it sound more rough (\flat VII is two frets below the tonic).

This is essentially the major chords with the 7-chord borrowed from the minor scale!

\flat VII introduces non-diatonic notes

Function Number	1	2	3	4	5	6	\flat 7
Key	major	minor	minor	major	major	minor	major?
Degree	I	ii	iii	IV	V	vi	\flat VII
C mixolydian Scale Chord	C	Dm	Em	F	G	Am	B _b
A mixolydian Scale Chord	A	Bm	C#m	D	E	F#m	G
E mixolydian Scale Chord	E	F#m	G#m	A	B	C#m	D



The \flat VII chord is often used in combination with the IV chord: I – \flat VII – IV

Scales

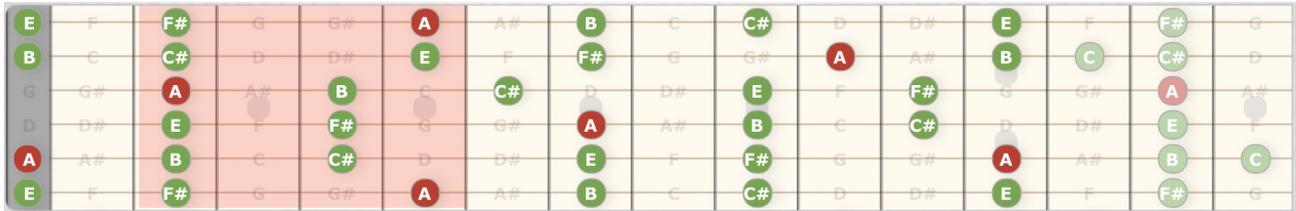
Pentatonic Scale

A pentatonic scale is made of five notes of a parent scale. These ‘essential’ notes may be used to accompany or solo over a song in that key.

In order to visualize and memorize those notes, we can divide the fretboard into different ‘patterns’ or ‘boxes’.

Major Pentatonic Scale

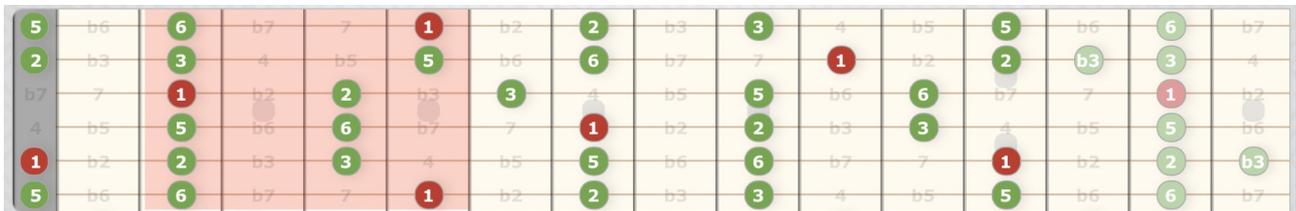
The Major Pentatonic Scale uses the intervals 1 – 2 – 3 – 5 – 6 of the major scale: A – B – C# – E – F#.
For example for A-major, the pentatonic notes on the fretboard [look like this](#):



The root note 'A' (i.e. interval 1) is on fret 5 of the E-string, fret 0 of the A-string, fret 7 of the D-string, and so on.

The root note is marked red. The section that is called 'box #1' is highlighted in reddish.

It is much more useful to think in intervals instead of note names however, because this allows us to shift the patterns up and down the fretboard. From now on, we will use this equivalent display:

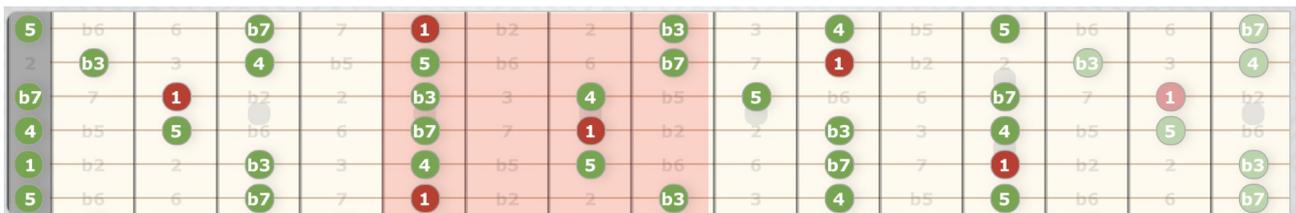


All these notes will sound good with a song in the key of A-major. When it comes to Blues however, it is more common to use the *Minor* Pentatonic Scale.

Minor Pentatonic Scale

The notes of the A Minor Pentatonic Scale sound good with songs in the key of a-minor or A⁷, so it is the basic scale used to play over blues music.

The Minor Pentatonic Scale uses the intervals 1 – b3 – 4 – 5 – b7 of the parent scale ([link](#)):



The root notes ('A' in this example) are marked red. The section that is called 'pattern #1' is highlighted in reddish.



Comparing major with minor pentatonic, the root note 'A' (i.e. interval 1) is still at the same fret locations (of course), but the intervals have changed. Interestingly, we find the same finger patterns again, but shifted. And now the finger positions have a different meaning:

If we want to solo over A-major using pattern #1, we can start with the pinky on the root note 'A' on E-string fret 5.

If we want to solo over a-minor using pattern #1, we can start with the index finger on the root note

'A' on E-string fret 5.

The 'Blues Scale' and the five Box Patterns

The blues scale is a minor pentatonic scale with an additional 'blue note', the 'flat five' $\flat 5$.



Besides of 'Box', the terms 'Pattern' and 'Position' are also used. Also the numbering is not always consistent with the samples below.



Another naming convention is based on the underlying chord shape (see The CAGED System below). Note how the Boxes #1..5 chord shapes form the name 'CAGED' (when starting with Box #3 and rolling over at the end).

Box #1 (e-minor shape)

5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7
2	b3	3	4	b5	5	b6	6	b7	7	1	b2	2	b3	3	4
b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7	7	1	b2
4	b5	5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6
1	b2	2	b3	3	4	b5	5	b6	6	b7	7	1	b2	2	b3
5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7

Box #2 (d-minor shape)

5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7
2	b3	3	4	b5	5	b6	6	b7	7	1	b2	2	b3	3	4
b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7	7	1	b2
4	b5	5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6
1	b2	2	b3	3	4	b5	5	b6	6	b7	7	1	b2	2	b3
5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7

Box #3 (c-shape)

5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7
2	b3	3	4	b5	5	b6	6	b7	7	1	b2	2	b3	3	4
b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7	7	1	b2
4	b5	5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6
1	b2	2	b3	3	4	b5	5	b6	6	b7	7	1	b2	2	b3
5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7

Box #4 (a-minor shape)

5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7
2	b3	3	4	b5	5	b6	6	b7	7	1	b2	2	b3	3	4
b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7	7	1	b2
4	b5	5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6
1	b2	2	b3	3	4	b5	5	b6	6	b7	7	1	b2	2	b3
5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7

Box #5 (g-minor shape)

5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7
2	b3	3	4	b5	5	b6	6	b7	7	1	b2	2	b3	3	4
b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7	7	1	b2
4	b5	5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6
1	b2	2	b3	3	4	b5	5	b6	6	b7	7	1	b2	2	b3
5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7



The five box patterns have always this rule (we ignore the low E string, since it is a clone of the high e string, and forget about $\flat 5$ as well):
2 times 4 half-steps per string, then 3 times 3 half-steps.



When improvising it is very important to know where the root notes are for every box.
These are the fundamental target notes, that we always can come home to.

The Albert King Box

Played in Box #2 ([link](#)). Works in major and minor blues.

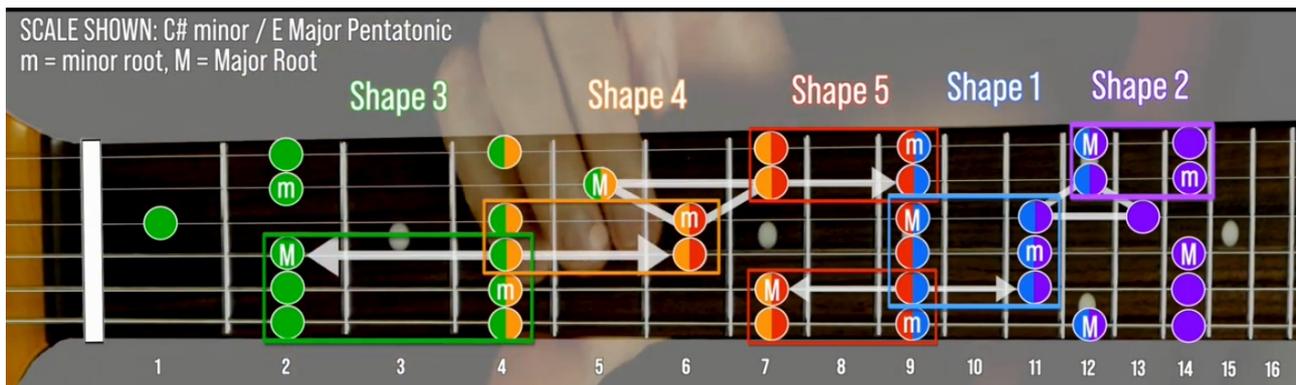
5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7
2	b3	3	4	b5	5	b6	6	b7	7	1	b2	2	b3	3	4
b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7	7	1	b2
4	b5	5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6
1	b2	2	b3	3	4	b5	5	b6	6	b7	7	1	b2	2	b3
5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7

The B.B.-Box

The BB-Box, for example for A⁷ blues ([link](#)):

5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7
2	b3	3	4	b5	5	b6	6	b7	7	1	b2	2	b3	3	4
b7	7	1	b2	2	b3	3	4	b5	5	6	b7	7	1	b2	b3
4	b5	5	b6	6	b7	7	1	b2	2	3	b3	3	4	b5	5
1	b2	2	b3	3	4	b5	5	b6	6	7	b7	7	1	b2	b3
5	b6	6	b7	7	1	b2	2	b3	3	4	b5	5	b6	6	b7

- Played in Box #3, typically only on the highest 3 strings
- $\flat 7$ is replaced with 6 and the 2 is added (no $\flat 5$ either?)
- The 2 is often bended to $\flat 3$, and the $\flat 3$ is often bended to 3.
- Works best in dominant 7 major blues, over I, IV, and V, but especially over the IV chord. Not so good with minor blues however.
- <https://www.youtube.com/watch?v=HQ5WwrVd8SI>
<https://www.youtube.com/watch?v=AaB0eHdgf-E>
<https://terryteachesguitar.com/the-bb-king-blues-box/>



Adding more notes to the pentatonic

TODO: hybrid scale? Blue notes? Blues note?

Soloing

Note: As example we use a Blues in the key of A, unless noted otherwise.

See <https://www.zombieguitar.com/blues-theory-101-major-minor-and-hybrid-approaches-to-soloing-over-a-12-bar-blues-progression/>

1. Find the key of the song.
Is it major or minor?
TODO: how to find the I-chord
2. The chord progression is often I-IV-V (see The I-IV-V Blues, 12-Bar Blues above).
Typically we can play 7th chords instead of plain major.
For a Blues in the key of A this would be A⁷ – D⁷ – E⁷.
3. For many blues songs we can use the *minor* pentatonic of the song's key as a starting point for improvising.
(See The 'Blues Scale' and the five Box Patterns above.)
 - If we play the base chord as E-Shape, we can use Box#1 in that fret.
For example for a song in the key of A we can play the base chord as barré E chord at fret 5, so we may use Box#1 in fret 5 for soloing (and meander to the other boxes from there).
 - If we play the base chord as A-Shape, we can use Box#4 in that fret.
For example for a song in the key of D we can play the base chord as barré A chord at fret 5, so we may use Box#4 in fret 5 for soloing.
(D can also be played as barré E chord at fret 10, so we may also use Box#1 at fret 10.)
4. We may play the minor pentatonic scale of the song's base key over the complete I-IV-V progression. However:
 - Box#1 is the easiest one. We could always find the fret where the song's base chord is played as barré E, and noodle from there. However this tends to get boring after a while. Try using the neighbor boxes ('unlock the fretboard').
 - Know the root notes: coming back to the root note ('1') always sounds good.

- Switch to major pentatonic (for example on the IV-chord, see Mixing the Minor and Major Scale below)
 TODO: rules, when to use major pentatonic, and when they can be mixed
- TODO: Everything is allowed on the V-chord?

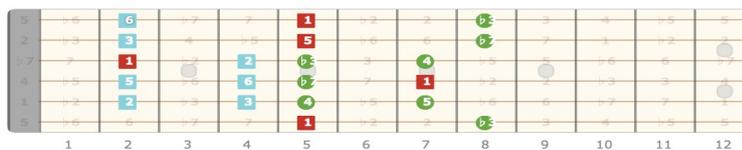
Mixing the Minor and Major Scale

When soloing, we often use the Blues Scale, which is basically the minor pentatonic.

To make things more interesting, we can switch to the relative major scale. For example, in a I-IV-V Blues, this often done on the IV-chord.

a-minor pentatonic with relative major

Slide three frets down for the relative major scale (same pattern 'Box#1')



Green dots: Box#1 (e-shape) of a-minor pentatonic.
 Blue squares: Box#1 (e-shape) of A-major pentatonic
 Red squares: shared notes

Mix Box#2 of the major scale into Box#1 of the minor scale



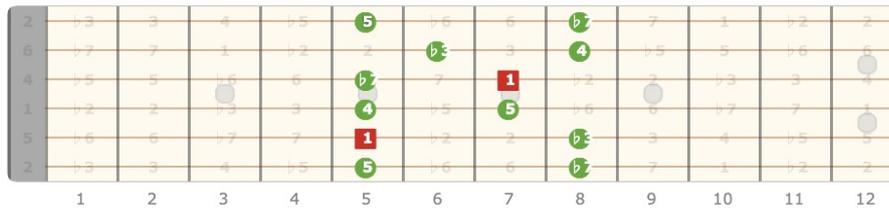
Green dots: Box#1 (e-shape) of a-minor pentatonic.
 Blue squares: Box#2 (d-shape) of A-major pentatonic
 Red squares: shared notes

([view on guitarscientist](#))

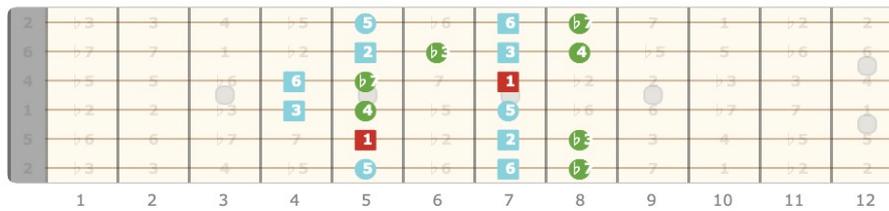
For example, a I-IV-V Blues in A uses the A, D, and E chord. We can solo using notes from the a-minor pentatonic.

d-minor pentatonic with relative major

Base chord D, played as a-shape at fret 5 (Box#4)



Mix in the major pentatonic at fret 5 (box#5, g-shape)



Green dots: Box#4 (a-shape) of d-minor pentatonic.
Blue squares: Box#5 (g-shape) of D-major pentatonic
Red squares: root note, blue dots: shared notes

([view on guitarscientist](#))

TODO:

- <http://www.editor.guitarscientist.com/diagrams/485>
- <http://www.editor.guitarscientist.com/diagrams/482>
- switch to the relative A-major by shifting to box 1 three frets below
- switch to the relative A-major by shifting to box 2 on the same fret
- What's the scale name of the mix? Dorian mode?
- Use the minor pentatonic as base, then target the minor/major 3rds in the I, IV, V chords ([See here](#))

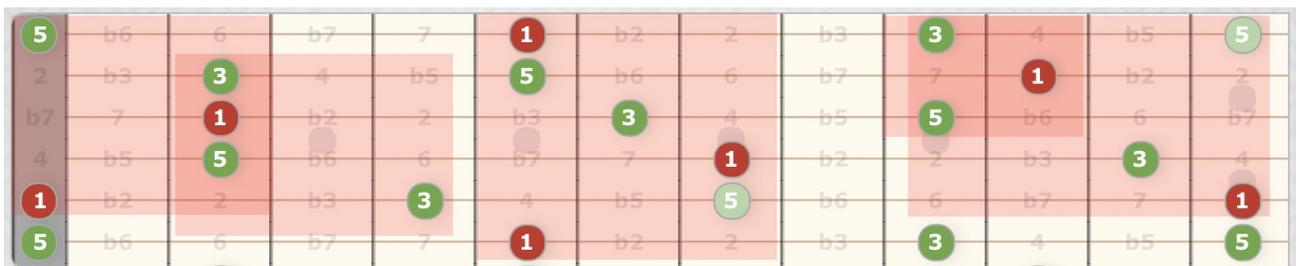
See also <https://youtu.be/NFgnFnQiy8c>

The CAGED System

See also the 'shape' names in the The 'Blues Scale' and the five Box Patterns paragraph above.

This is one way to find different voicings for one chord. In this examples, we don't always have (1) as root, so we may get inversions ([link](#)).

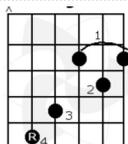
For example play an A chord as A, G, E, D, and C shape:



Likewise we can play an E chord as E, D, C, A, and G shape:



Play C-Shape like this:



We can use this knowledge for improvising and soloing and to visualize the different pentatonic box patterns more easily (<https://youtu.be/sIhGEswm4s8>).

Modes

‘Modes’ are scales with names like ‘aeolian’, ‘mixolydian’, ...



Aeolian mode is same as the natural minor scale, described above.

Terms & Techniques

Bending

Vibrato

Harmonics

Pinch Harmonics

Double Stops

I don't know if this is a ‘chord’, but it is simply two notes/strings played together. Jimmy Hendrix was famous for this.

??? Often those notes are on adjacent strings.

??? Often one could play two notes from the current → pentatonic.

Slap / Snap

Picking Techniques

Thumb Independence

[how i got thumb independence in less than one hour](#)

[Goolge guitarthumb independence exercises](#)

<https://youtu.be/HJ9DCVC6jq8>

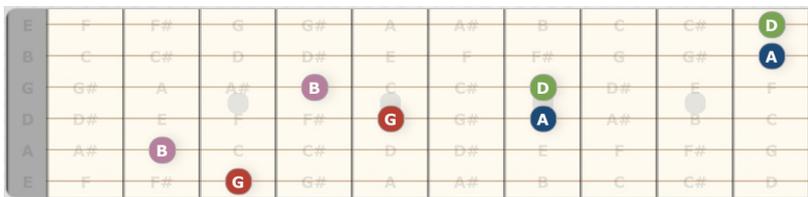
Travis Picking

<https://youtu.be/m6b371mNkCw>

Tips & Thoughts

Octaves and the special B-string

In general we find the octave of a note by going two strings down and two frets right. However, due to the special tuning of the B-string, we have to compensate by adding one fret when we cross this border:



Pentatonic Pattern Navigation

Starting from *any* root note, the pentatonic notes can be found using this pattern:

- 1 (root note): put index finger here
- ♭3 ('flat third'): pinky 3 frets left
- 4 ('perfect fourth'): one string down
- 5 ('perfect fifth'): on string down, 2 frets left
- ♭7 ('flat seven'): two string down
- 8/1 ('octave'): two string down, 2 frets left



Note that we have to adjust by one fret when crossing the 'special' B-string:



We can now chain this patterns. If we always start with the index finger on the root note, we always know where to find the 'home' when soloing!



Jazz(y Blues)

- A9
A6, then lift the middle finger to get to the 4-chord (D⁷)
Josh Smith: https://youtu.be/9ME_4HlpYv0?t=81

Three Notes Per String

<https://www.youtube.com/watch?v=eElq1MGhy4E>

Gear and Stuff

[15 Guitar Myths That Make Us All Look CRAZY!](#)

Misc

- ...

Tone

The Holy Grail.



<https://www>

Appendix

Resources

YouTube Teachers

- Justin Sandercoe
<https://www.justinguitar.com/guitar-lessons/the-blues-language-bl-401>
- Paul Davids
- Stitch

Tools & Stuff

- [Online Fretboard Diagrams](#)
New: <http://www.editor.guitarscientist.com/>
- [Online Chord Analyzer](#) also reverse chord analyzer and some theory

Misc

e |-----|
B |-----|
G |-----|
D |-----|
A |-----|
E |-----|

Aeolian mode is same as the natural minor scale, described above.

