

LESSON 8. PLAYING THE CHANGES.

8.1 Harmony

The minor 7th chord.

The minor 7th chord consists of the minor triad with an additional MINOR 3rd.

Since there are 4 notes in the chord there will be 4 close positions which are shown for all the chords in Ex.1.

Notice that the structure of this chord is NOT NEW. Refer back to lesson 5 (The added 6th chord) or to lesson 7 (The major 9th chord) and recall that both of these chords have IDENTICAL structures to the minor 7th chord –

$$Am7 = C6$$

$$Am7 = FM9 \text{ (upper 4 functions)}$$

Here is a complete list showing the relationships between these 3 chords –

AbM9	AM9	BbM9	BM9	CM9	DbM9	DM9
Eb6	E6	F6	F#6	G6	Ab6	A6
Cm7	C#m7	Dm7	D#m7	Em7	Fm7	F#m7
EbM9	EM9	FM9	F#M9	GM9		
Bb6	B6	C6	C#6	D6		
Gm7	Ab7	Am7	A#m7	Bm7		

The actual chord involved will be defined by the BASS note, rather than on the upper structure. The chord will be defined by the bass note, thus –

Upper structure –	C E G A = C6	C E G A = Am7	C E G A = FM9
Bass note –	C	A	F

See Ex.2.

This concept of the upper structures of chords being themselves chords should now be well established in your mind as we have met it in the previous lessons –

- C6 = Am7 lesson 5 / 8
- CM7 = Em lesson 6
 C
- CM9 = G6 lesson 7
 C
- CM9 = Em7 lesson 7 / 8
 C

All this material that we have now accumulated illustrates again how the original simple principles of harmonisation and SOUND can be constantly extended and developed without introducing anything that is dramatically new. This is a major breakthrough for memory and instrumental technique.

8.2 Chord Progressions

IIIm7 - V7 - I & the circle of 5ths.

We will now continue to develop our appreciation of chord sequences with an important extension which illustrates how complexity and sophistication can grow from the basic building blocks we met in lesson 1.

For the time being we shall use the m7 chord on the 2nd degree only. (3m7 and 6m7 will be discussed later).

The m7th on the 2nd degree (Supertonic) will be found almost invariably preceding the 7th chord on the 5th degree (Dominant). In the key of C this will be Dm7 and G7. See Ex.3.

We should recall from lesson 2.1 that the Dm triad preceded the G triad before resolution back to the tonic C, as an example of the tendency to move down a 5th. With the 7th added the same sequence has the ADDED forward urge that we first met in lesson 4.1. Read carefully the further comments below.

Note the importance of VOICING to get a smooth resolution from Dm7 to G7. See Ex.4 and lesson 1.5.

The following more varied tonal cells now become available –

I	IIIm7	V7	I	I	VIIm	IIIm7	V7	I	
C	Dm7	G7	C	C	Am	Dm7	G7	C	
I	IV	IIIm7	V7	I	IM7	IVM7	IIIm7	V7	I
C	F	Dm7	G7	C	CM7	FM7	Dm7	G7	C

See Ex.5 to 8.

Remember to experiment with sounds. Ex.9 is the CM7 FM7 Dm7 G7 C progression with open voicings.

The IIIm7 - V7 - I, or Dm7 - G7 - C in the key of C, chord sequence is HEARD EVERYWHERE! Some years ago it was suggested that well over 70% of all chords found in American popular songs were IIIm7, V7 or I.

This sequence is so important for jazz improvisation that some further comments are appropriate. Why is this sequence so common? Because it sounds right! Yes but why does it sound right? –

- it is an example of the tendency of chords to gravitate onto a chord which is a 5th lower. See 1.5. The dominant tends to resolve onto the tonic. We can see that D is the dominant of the G chord which is a 5th lower, and G is the dominant of C
- the added flat seventh note makes this tendency more pronounced. This is because the seventh is not part of the scale of the chord note but is part of the scale of the chord note which is a 5th lower. See 4.1.
- all the notes of these chords are part of the C major scale
- once a piece of music, a progression, has moved away from the tonic, it must return at some stage for the sound to be 'completed'. A most 'pleasing' way for the sound to return 'home' is via the dominant 7ths. See 1.5.

We can extend the D - G - C sequence –

D - G - C - F - Bb - Eb - Ab - Db - Gb / F# - B - E - A – D ... and back to the start!

This sequence can be represented as a CIRCLE OF 5THS. See Ex.31. Inspection of the sequence will confirm each successive note anticlockwise round the circle is a 5th lower. LEARN THIS SEQUENCE BY HEART, listen to the sound of the sequence, play it and hear how it sounds more 'progressive' when played as 7th chords.

The practice of moving, or gravitating, down a 5th is so common that it provides the improviser with a valuable aid to memory. Thus instead of trying to remember the EXACT sequences of a large number of songs in our repertoire we can apply a general PRINCIPLE –

IN JAZZ STANDARDS THERE IS A HIGH PROBABILITY THAT CHORD SEQUENCES WILL FOLLOW THE CIRCLE OF FIFTHS.

There will be exceptions to this, of course, and we have met a number of them already.

Firstly the movement away from the tonic can itself be down a 5th to the subdominant. This is particularly common in the blues. See 1.5 and lessons 9 to 11. The initial movement away from the tonic will often be a JUMP to the 'sharper' keys before returning to the tonic VIA THE CYCLE. Substitute chords will also tend to hide the underlying movement of the sound. See 5.2. However, apart from 'plagal' movements, jumps or substitutes, whenever a chord appears in a song, EXPECT the next chord to follow this rule.

This is a powerful memory aid and you are urged to analyse the songs you play and discover for yourself the ubiquitous nature of this cycle. See 8.5. below.

The circle of 5ths is THE SAME FOR ALL KEYS. That is the II - V -1 sequence always involves adjacent chords of the circle thus –

- D - G - C in the key of C
- E - A - D in the key of D
- C - F - Bb in the key of Bb
- Eb - Ab -Db in the key of Db

We have discussed how the interval of a perfect fifth is significant in many ways in music theory and the circle of fifths has many uses –

- The circle is divided into twelve equal parts with each note of the chromatic scale included exactly once in the circle.
- The circle of fifths can also define scales. Any set of seven consecutive notes can be arranged to form a major scale.
- Any set of five consecutive notes can be arranged to form a pentatonic scale, which is discussed later. See lesson 9.
- Another application of the circle of fifths is in determining key signatures. The key of C major has no sharps or flats. As you move clockwise around the circle, each new key signature adds one sharp. For example, G major has one sharp (F#); D major has two (F# and C#); A major has three (F#, C#, and G#); E major has four (F#, C#, G#, and D#); etc. Conversely, if you trace the circle counterclockwise, the key signatures add flats. For example, F major has one flat (Bb); Bb major has two (Bb and Eb); Eb major has three (Bb, Eb, and Ab); and so forth.
- Also note that the sharps added at each step themselves trace the circle of fifths, starting with F# (added in G major), then C# (in D), then G# (in A), then D# (in E), and so forth.
- The flats added at each step also trace the circle of fifths, starting with Bb (added in F major), then Eb (in Bb), then Ab (in Eb), and so forth.
- We can also find the note a TRITONE away from a given note by simply looking diametrically across the circle. For example, a tritone away from G is Db, and these are directly across from each other. This can be useful for identifying the 'tritone' interval which has important characteristics which we will discuss later.
- Relative minors are three clockwise steps away.....

.....in fact all the scale / note relationships can be easily and quickly read off the circle, it is an invaluable aide memoir. MEMORISE IT!

If we understanding the circle of 5ths we can get to grips with most of the progressions of most of the early jazz songs, particularly if we can also recognise modulation. We discuss progressions again in 8.5 below.

8.3 Melody

Apply the basic principles.

For melodic work the 7th is added to the minor triad producing the arpeggiated versions in Ex.10. If you have followed the instructions given in relation to the practising and memorising of the added 6th and major 9th, it will NOT BE NECESSARY to re-practice the m7 chord. All that will be necessary is that the new relationship be understood.

Unessential notes can be added as before –

- appoggiatura, single or double. See Ex.11.
- chromatic passing notes. See Ex.12.
- decorative patterns and shapes as in the last lesson 7.

Ex.13 to 20 are typical examples on the Dm7 chord for practice and memorising.

Applying decoration to chords to produce sound shapes is a MASSIVELY IMPORTANT PRINCIPLE FOR THE IMPROVISER. Many of the exercises you have practised in the course and particularly the shapes from the last lesson 7.3 can be explained in terms of sound shapes. The raw material is the arpeggiated chord and the associated decoration but much of the creativity and excitement comes from putting them into a continuity which forms a recognisable rising and falling shape. By far the most common are eighth note patterns. These comprise the vast majority of the course exercises.

Look back over the course and see how the first 7 lessons have been designed to help you to build a melodic capacity to produce sound shapes based on the DECORATION OF CHORDS. Syncopation and rhythmic idiom transform the melody notes into the jazz sound.

The music we hear and describe as jazz is performed to the AMAZEMENT of untutored listeners but the reality is often simple –

TECHNIQUE involves –

- sound / finger habit
- rhythmic ‘time feel’

THE MUSICAL TRICK is to play –

- recognisable decorative patterns and shapes associated with the chords of the song
- in the rhythmic idiom of jazz
- which complement the other players

Read that paragraph again it is important!

We can mention yet again that you will, no doubt, have noted that principles and material from earlier lessons is constantly being extended and developed to give greater variety and scope in performance. The conscious building blocks are simple, the subconscious synthesis will, hopefully, be dramatic in its effect!

8.4 Rhythm

The ‘emergence’ of the right note, place & time.

There is a very important principle involved in generating rhythms which is the use of RESTS in a stream of sound. Any of the rhythm notes in any of the exercises can be SILENT.

Silence can produce effects as equally dramatic as notes if they are used at the right place and time.

Here are some examples which include rests which illustrate once again the principle of an original rhythmic patterns being combined to produce a 4 bar phrase which then provides material for endless variety by recombination and displacement.

Here are some of the possibilities –

- the original 4 bar pattern with rests and tied notes across the bar line. See Ex.21
- recombination of bar patterns with rests and tied notes across the bar. See Ex.22
- displacement of the 4 bar pattern by 1 beat with rests and ties across the bar. See Ex.23

Remember ANY of the rhythms studied in the previous lessons can be manipulated in this way.

Remember your target will be to put interesting melodies to rhythms and displacements –

- original bar pattern with rests and tied notes across the bar line with added melody. See Ex.24
- displaced by 1 beat. See Ex.25

The following abilities should now be EMERGING –

- detecting rhythmic patterns more fluently
- reproducing rhythms heard during listening periods
- playing rhythms of varying degrees of complexity
- improvising rhythms
- awareness of that all important ‘time feel’ for four bars and being able to hit the first beat of bar five every time.

We make no apology for stressing rhythm AGAIN. If the development of rhythmic sense does not keep AHEAD of harmonic and melodic ability, progress will be limited and you will not be improvising jazz. You may think your efforts sound ‘good’ but without the rhythmic sensitivity it WON’T SOUND LIKE JAZZ.

8.5 Co-ordination

Improvising over changing chords.

Ex.26 shows a typical example of the co-ordination of melody and chords which you have studied up to now.

You can have a go at constructing further exercises on this model, or better still take your favourites songs study the chord sequence and build a melodic line incorporating the ideas we have presented.

Let’s now reflect on how this is done, how do we improvise over the chord progressions.

The form of improvisation we have studied to date is to create ‘SPONTANEOUS’ rhythmic melodic ‘TRAJECTORIES’ that are based on DECORATION OF THE CHORD PROGRESSION of the song.

At the most basic levels, the notes you choose for your improvisation are dictated by the chord, the associated ‘decoration’ and the sound shape you are projecting.

This is what we call ‘PLAYING THE CHANGES’.

Your prime concerns should be playing ‘rhythmically’ and ‘melodically’ and playing complementary lines with the other instruments. See 5.6. Playing melodically does not necessarily mean playing ‘prettily’, but there should be some sense of CONTINUITY to your lines, and they should be interesting in themselves. See 5.3. You should also be conscious of the rhythmic DEVELOPMENT of your improvisations. This is hard to teach, but involves avoiding MONOTONY, it is probably the aspect of improvisation that requires the most CREATIVITY. See lesson 12.

The big problem is obtaining a SMOOTH melodic flow over CHANGING chords. The change of chord should be ‘heard’ as the sound changes but there should be NO DISCONTINUITY. The solution to this problem involves –

- note selection so that the change is ‘recognised’, see below
- note selection so that the change follows the guidelines of smooth progression out lined in 1.7
- absorbing phrases that ‘include’ the appropriate changes, all the co-ordination material in the course exercises, for example, can be used to play changes
- anticipating the changes through a thorough knowledge of the progression and the knowledge that most songs ‘go the same way’, see 5.2 and below.

To ‘recognise’ chord changes you should be aware that certain notes are more important than others in establishing a chord sound.

The 1st point to note is that the most interesting distinguishing note of a triad is the 3rd thus to signal changes between the simple triads the ‘strong’ note to emphasise is always the 3rd.

Similarly the flat 3rd is vital to identify the minor sound.

When ‘normal’ flat 7th chords appear the 7th note itself is the important one.

With a succession of 7th chords remember the ear will be 'expecting' to move down a 5th, so if the progression is building up tension by delaying resolution to a tonic with another 7th, the important distinction will again be the new 7th. Thus, if, for example, D7 leads to G7 and not the 'expected' G, G6, GM7 or GM9, stress the F of the G7 and avoid the G or the E of the G6, or ANY of the other M9 chord notes. The F is the only distinguishing note. Think about this and make sure you can argue against any other note.

For songs that change key the important landmark is the dominant 7th of the new key. This establishes a modulation rather than a 'temporary' change. All songs temporally visit other keys as interest, variety and tension is built up by moving away from the tonic but casual visiting is not the same as modulating. Modulating introduces the unmistakable **DOMINANT 7TH OF THE NEW KEY** in a new setting. It is not the same as meeting the same chord as part of a circle of 5ths sequence!

Once again we must stress that it is what sounds right that matters, all the above ideas maybe useful memory aids, prompts or post rationalisations but use them with care.

By far the most significant advice we can give you about playing changes is that songs 'TEND TO GO THE SAME WAY'. Learning the 'tendencies' helps memory and anticipation will help technique and creativity. We can summarise by classifying songs into the following types –

- 'PENDULUM' songs. These have a 'to and fro' or 'rocking' feel as the chords alternate between tonic and dominant 7th. The tonic to dominant is 'answered' by the dominant to tonic. This movement is very compelling and very common. Nursery rhymes and simple folk songs are often of this type. Your 1st objective is to get the 'feeling' of these type of changes.

Note that in this type of song the chord often doesn't change at the end of a 4 bar section. However, invariably the melody does break at the 4 bar section change.

See Ex.27. This is the chorus from 'At a Georgia Camp Meeting' which is all simple 'to and fro' motion until the final 4 bar run in.

- 'HYMN' songs. These songs are based on the 3 chords on the tonic, dominant and subdominant. We have discussed these and the early progressions we studied involved these chords. Often referred to as the '3 chord trick', literally thousands of songs have been, and will continue to be, written around these 3 chords. These song types introduce the subdominant and 'plagal' changes when the resolution to the tonic is from the subdominant. Make sure you can feel the 'plagal cadence to bar 3 and compare it to the perfect cadence of 'to and fro' songs in bar 7. Many examples of this type of song are found in church music, spirituals and blues. Note that many songs which are called 'blues' are not blues at all. All authentic blues are built round the 3 chords of the 'hymn' tunes. See. Ex.28. which is the chorus sequence of 'Down by the Riverside'.

- 'CIRCLE' songs. These songs exploit the circle of 5ths where the progression jumps to the sharp chords and returns to the tonic via the circle. Many 'dixieland' tunes are of this type. If you 'know' the circle you will always know where the song is going. The songs do not, of course, move every bar or every 2 bars, but when the change comes it will be the next on the circle. Remember the concept of harmonic rhythm in 2.2?

Many of these song types jump to a sharper chord, start to move round the circle but before reaching the tonic they jump sharper again before eventually resolving back to the tonic.

See Ex.29. which is the last 8 bars of 'Please Don't Talk about Me when I'm Gone', which is a typical 'circle' song.

- 'AABA' songs. Typical 'theatre' songs go this way with a repeated strain and a contrasting 'middle 8'. This can involve the imperfect cadence to lead you back to the repeat strain. See 2.1. and often a change of key in the B strain.

See Ex.30. which is part A and part B of the AABA song 'Smoke gets in your Eyes'. You will be able to hear the key change in the middle 8, it is designed to be a contrast!

Look at all the songs in your repertoire and identify the types. Remember that the basic progression is often obscured by substitutions and most songs will involve COMBINATIONS, RECOMBINATIONS and DISPLACEMENTS of the above tendencies! For example, sequences can be interrupted and a new type sequence started for a section of the song. AABA songs can be ABAB, or ABAC, there are many permutations. Nevertheless the vast majority of your songs you will be able to classify in this way. Once classified you will then know 'how they go' and can concentrate on learning the EXCEPTIONS or IDIOSYNCRASIES which almost all of the more interesting songs will have. Remember it is easier to learn the EXCEPTIONS than the totality. Try it!

We should also mention that more advanced forms of improvisation give the performer more melodic and harmonic FREEDOM. This can be achieved by identifying a 'scale' which can be played against each chord, and by making the chords progressions more 'ambiguous' in tonality, sometimes to the point of eliminating chord structures entirely! These approaches are discussed in later lessons.

Another reminder that the important practical procedures are as follows –

- practice and memorising of the musical examples
- transposition of these to other keys and chords
- constant listening, analysis and transcribing
- constant experimentation on the lines indicated
- the forgetting of instructions and the UNINHIBITED effort at free improvisation. (This means that previous studies will be allowed to come through without conscious interference).

Finally remember that co-ordination involves bringing together all the aspects of harmony, melody and rhythm we have studied, the target is an interesting continuity in the jazz idiom.

8.6 Psychology

Understand, practice & perform confidently.

Lessons 7 and 8 have attempted to pull together the principle teachings of the course so far. We have summarised the technical aspects, but we also need to emphasise the psychological aspects which can be listed as follows –

- if we understand the technicalities, memory and capacity are easier to develop. This requires intellectual effort.
- learning the technicalities is a matter of consciously ingraining sounds and habits. This requires patient practice.
- performance subsequently becomes a matter of subconscious projection of the ingrained material. This requires eliminating inhibition and gaining confidence.
- there is no secret – understand, practice and perform.

Although we do not believe that a brilliant improviser can develop by merely following instructions, we are of the opinion that certain forms of instruction can give you confidence and serve to rid the student of INHIBITIONS which may have accumulated over the years in relation to questions of what can and what cannot be done.

You will have noted that we have tried to suggest 'rules' which may aid memory, but these should always be subordinate to the acquisition of STYLE.

We hope that the know how and understanding you acquire will lead you from conscious perception to subconscious projection in performance.

8.7 Written Work.

Harmony –	section 1				
	IM7	IVM7	IIIm7	V7	
Bars –	1	1	1	1	
Harmony –	section 2				
	IM7	VIIm	IIIm7	V7	I
Bars –	1	1	½	½	1
Rhythm –	Drawn from studies to date.				
Melody –	All resources studied in lessons 3, 4, 5, 6 and 7. (Use Ex.26 as a model).				

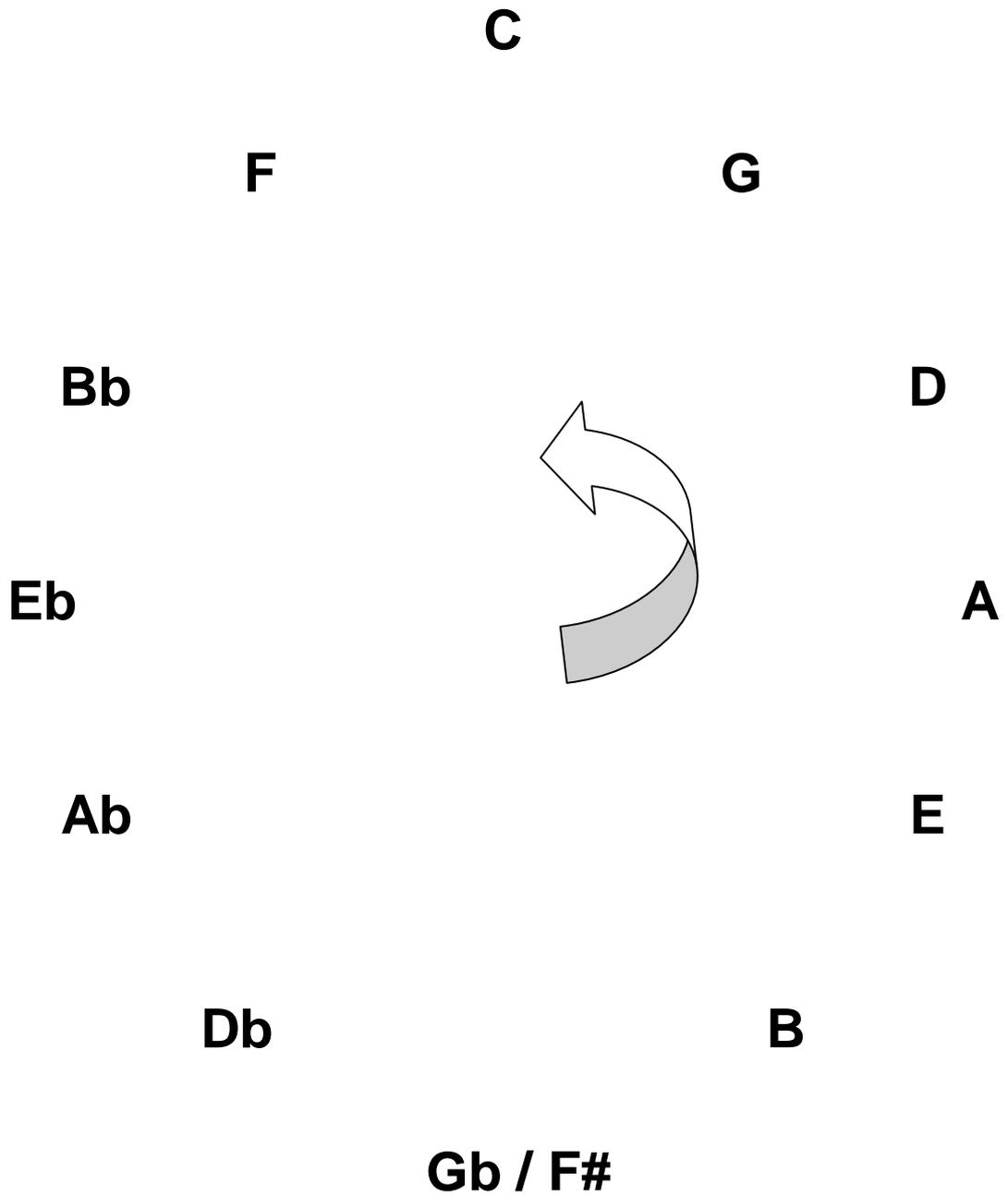
It should be remembered that the homework assignment is simply a device for checking progress and indicating lines of work.

NB. This is the last lesson in the first phase of our studies. We have concentrated on a style of improvising which develops rhythmic melodic phrase construction over smoothly moving chord sequences. With lesson 9 we shall turn to the BLUES idiom, involving scales rather than chords. Our work will consequently be very different, and in many ways, much easier.

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Ex.31.

THE CIRCLE OF 5THS



CHORDS / SCALES

PENTATONIC						BLUES PENTATONIC						
<u>1</u>	<u>9</u>	<u>3</u>	<u>(4)</u>	<u>5</u>	<u>6</u>	<u>7th</u>						
C#	D#	F E	(F#)	G#	A#	B	C#	E	F#	(G)	G#	B
F#	G#	A# A	(B)	C#	D#	E	F#	A	B	(C)	C#	E
B	C#	D# D	(E)	F#	G#	A	B	D	E	(F)	F#	A
E	F#	G# G	(A)	B	C#	D	E	G	A	(Bb)	B	D
A	B	C# C	(D)	E	F#	G	A	C	D	(Eb)	E	G
D	E	F# F	(G)	A	B	C	D	F	G	(Ab)	A	C
G	A	B Bb	(C)	D	E	F	G	Bb	c	(Db)	D	F
C	D	E Eb	(F)	G	A	Bb	A	Eb	F	(Gb)	G	Bb
F	G	A Ab	(Bb)	C	D	Eb	D	Ab	Bb	(B)	c	Eb
Bb	C	D Db	(Eb)	F	G	Ab	G	Db	Eb	(E)	F	Ab
Eb	F	G Gb	(Ab)	Bb	C	Db	C	Gb	Ab	(A)	Bb	Db
Ab	Bb	C B	(Db)	Eb	F	Gb	F	B	Db	(D)	Eb	Gb
Db	Eb	F E	(Gb)	Ab	Bb	B	Bb	E	Gb	(G)	Ab	B

CHORDS SCALES

PENTATONIC

<u>1</u>	<u>9</u>	<u>3</u>	A	<u>5</u>	<u>6</u>	<u>7th</u>
C#	D#	F	F#	G#	A#	B
F#	G#	A#	B	C#	D#	E
B	C#	D#	E	F#	G#	A
E	F#	G#	A	B	C#	D
A	B	C#	D	E	F#	G
D	E	F#	G	A	B	C
G	A	B	C	D	E	F
C	D	E	F	G	A	Bb
F	G	A	Bb	C	D	Eb
Bb	C	D	Eb	F	G	Ab
Eb	F	G	Ab	Bb	C	Db
Ab	Bb	C	Db	Eb	F	Gb
Db	Eb	F	Gb	Ab	Bb	B