

# A SINGER'S GUIDE TO JAZZ THEORY

## Introduction

Being a vocalist in the jazz field is not easy. You face fierce competition in getting gigs from lots of other singers, many of whom seem to believe that merely singing a few Standards qualifies them as being "jazz singers". It is therefore in your interest to learn a bit more about the nuts and bolts of music and jazz in particular. You may think this is unnecessary as the public often prefer singers to instrumentalists. But that's only half the story. What about the musicians who accompany you? You will gain much more respect from them if you become more knowledgeable and in turn they will play your music with much more enthusiasm. Just remember to be nice to them and get some really good arrangements and see how things will change.

*The following notes should be read with a piano or guitar at hand. You may wish to get together with your friendly neighbourhood pianist or guitarist to go over them.*

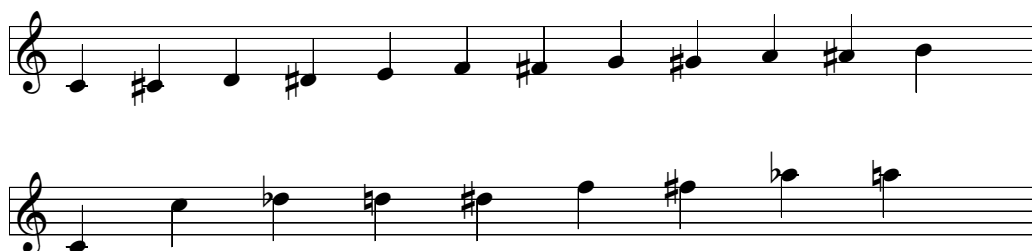
### PART 1

#### 1. Terms

The Latin numerals I to VII are used to describe the notes/steps/degrees of a scale, particularly with regard to chord sequences. **I** is often called the **Tonic**; **IV** the **Subdominant**; and **V** the **Dominant**. The names given to the other notes are not so important.

An **interval** between 2 notes is described by a name and a number. There are **perfect** unisons, 4ths, 5ths and octaves (although the word perfect tends to be omitted for unisons and octaves); **diminished** and **augmented** 5ths (1 semitone less or more than a perfect fifth respectively); and **major** and **minor** intervals (with only a semitone difference) which refer to 2nds, 3rds, 6ths and 7ths. The words **flattened** and **sharpened** (indicated in symbols by # and b or + and -) are also used in jazz.

The different intervals are shown below. The number of semitones between the 2 notes is shown in brackets, eg. in a major 3rd, say C to E, there are 4 semitones: C - C#, C# - D, D - D#, D# - E.



C - C# (or Db) = minor 2nd (1 semitone)  
 C - D = major 2nd (2 semitones)  
 C - D# (or Eb) = minor 3rd (3 semitones)  
 C - E = major 3rd (4 semitones)  
 C - F = perfect 4th (5 semitones)  
 C - F# (or Gb) = augmented 4th (or diminished 5th) - sometimes written as sharpened 4th or flattened 5th (6 semitones)  
 C - G = perfect 5th (7 semitones)  
 C - G# (or Ab) = minor 6th (8 semitones)  
 C - A = major 6th (9 semitones)  
 C - A# (or Bb) = minor 7th (10 semitones or 2 less than an octave)  
 C - B = major 7th (11 semitones or 1 less than an octave)  
 C - C (8va) = (perfect) octave (12 semitones)  
 C - C# (or Db) = minor 9th or flattened ninth (octave + minor 2nd)  
 C - D = (major) 9th (octave + major 2nd)  
 C - D# (or Eb) = sharpened 9th or flattened 10th (octave + minor 3rd)  
 C - F = perfect 11th  
 C - F# (or Gb) = sharpened 11th or flattened 12th (octave + aug 4th or dim 5th)  
 C - G# (or Ab) = flattened 13th or sharpened 12th (octave + minor 6th)  
 C - A = (major) 13th (octave + major 6th)

## 2. Chords

Chords are constructed by taking a note and adding the note a major or minor 3rd above it, and then repeating the process as necessary. If we take the notes of a major scale, for instance the **C major scale** formed from the notes:

**C D E F G A B C (... D E F G A B C ...etc)**

a three-note chord based on the C would consist of the notes **C E G**, while a four-note chord would also include the **B**, giving the notes **C E G B**. In this case, you just skip alternate notes to build the chord. Having found which notes are able to be used for a particular type of chord, you can then experiment with different voicings by changing the order of the notes and if desired by repeating some of the notes in different octaves.

The note on which a chord is based is called the **root-note**. If a different note in the chord from the root-note is used in the bass, it is called an **inversion**. In a C major triad (3-note chord) the **root-position** of the chord is C E G, the **first inversion** is E G C (or E C G) and the **second inversion** is G C E (or G E C).

Inverted chords are relatively rare in jazz unlike classical music. In jazz, root-position chords are preferred. Sometimes, though, a different note from the root-note of the chord is used in the bass. eg. G/Eb or G on Eb. If the bass note continues for several chord changes it is called a **pedal**.

## 3. Types of chords

In jazz, there are 6 main categories of chords: major, minor, minor 7ths, dominant

7ths, diminished, and half-diminished. There is also an augmented triad, but generally-speaking, 3-note chords are seldom used when fuller chords can be used, so for all intents and purposes we can fit it into one of the other categories. (Triads are however used a lot in rock music.)

### a. Major and Minor chords

The simplest basic chords are the major and minor triads.

The *major triad* consists of a root-note, and the **major third** and the perfect fifth above it. The **minor triad** consists of a root-note, and the **minor third** and the perfect fifth above it.

The C major triad is C E G and the C minor triad is C Eb G. You could think of this as being the 1st, 3rd and 5th notes of the C major scale and the C minor melodic scale (ascending form - this is the same as a major scale with a minor third).

For a singer, the important thing is perhaps to be able to identify what note of the chord they are singing. You can usually tell this in relation to the bass or the piano.

Try singing one of the notes while playing the initial chords. Then sing the arpeggio.

To get a fuller chord, the following notes (in black-heads) can be added.

The image shows two musical staves in treble clef with a C-clef (soprano clef) on the first line. The first staff is for the C major chord. It shows the root note C on the first line, followed by E on the second line, G on the second space, and then four additional notes: F on the first space (labeled 'major 6th'), G# on the second space (labeled 'major 7th'), A on the second space (labeled 'major 9th'), and B# on the second space (labeled 'sharpened 11th'). The second staff is for the C minor chord. It shows the root note C on the first line, followed by Eb on the first space (labeled 'major 6th'), G on the second space (labeled 'major 7th'), A on the second space (labeled 'major 9th'), and B on the second space (labeled 'perfect 11th').

The **major 6th** can be added to a C major triad to give a **C6** chord (no need to include the word *major*). An even fuller major chord could include the **major 9th** note as well, giving the chord **C 69**. Alternatively the **major 7th** note can be added to the basic triad to give a **C major 7th** chord. The **major 9th** note can also be added, producing a **C major 9th**. (In these two cases, the word *major* is necessary.)

The **(perfect) 11th** note is very rarely used however because there is a clash between this note and the major 3rd. Play them both and you will hear it. By sharpening the 11th (raising it a semitone), the clash is avoided. This note is not always necessary and it may itself then clash with the perfect fifth of the chord or else give the impression of a change of key. If it is used, it is usually used in conjunction with the major 7th rather than the 6th. The appropriate chord symbol would then be **C major 7 (+11)**, which is sometimes inaccurately written as **C major 7 (-5)**.

(A major 7th is often indicated by a triangle. It should be added that often a 6th **and** a major 7th are both used.

Try adding these notes to the triad on the piano and hearing how they sound.

In the case of a **minor** triad, the **6th**, **7th** and **9th** can be added likewise. But there is no clash between the (perfect 11th) and the minor 3rd, so it can also be added without any alteration. The sharpened 11th would not normally be used. The chord symbol for the triad is **Cm**; with an added 6th it is **Cm6**; and with a major 7th or 9th it is **Cm major 7** or **Cm major 9** respectively. Try these on the piano too.

It can be seen that the simplest form of chord symbol is frequently used. So, if a piano-player sees the symbol **C** he/she will automatically add any of these additional notes in keeping with the tune unless directed otherwise.

### b. Minor 7th chords

A minor seventh chord consists of a minor triad plus a **minor 7th** note. This would give the basic chord of D F A C for a Dm7 chord. The notes which can be added are shown below.

The image shows a musical staff in treble clef with a Dm7 chord symbol. The notes D, F, and A are shown as a triad. Three additional notes are shown: a major 9th (E), a perfect 11th (C), and a major 13th (G).

The minor seventh chord is quite a full-sounding chord as it is so it does not always need adding to, but the 9th and 11th can give it character. The 13th is a bit more exotic and not very often used. If it is used, the 9th and often the 11th are used as well. The chord symbols for these added notes would be **Dm9**, **Dm11** and **Dm13**.

As with the chords mentioned before, play and sing these notes in different voicings so you can recognise them easily.

### c. The Half-Diminished Chord

The half-diminished chord can be thought of as a minor seventh chord with a flattened fifth and is sometimes called this. A **Bm7(-5)** or **Bø** consists of the notes B D F A.

A B minor triad would be the notes B D F#. The minor 7th note is the A.

The Bm7 chord would be B D F# A.

Now if we flatten the fifth (F#) we get an F. Hence B D F A - the notes of a Bm7(-5). Get it?

This might take some time to work out but you soon get to know which notes apply to different chords. Notes which can be added to this are shown:

The image shows a musical staff in treble clef with a Bø chord symbol. The notes B, D, and F are shown as a triad. Three additional notes are shown: a major 9th (C), a perfect 11th (G), and a minor 13th (E).

Again, this is in itself a rich chord and often is left at that. Adding the major 9th (or

sometimes the minor 9th - a C natural here), and the perfect 11th can supplement it, as can the minor 13th if used with care.

Play/sing these notes and try and spot them when they occur in tunes. *Moon River* will never be the same to you again.

#### d. the **Diminished Chord**

The diminished chord is a bit of an oddity, much loved by classical composers because it can be used to modulate to various keys. In jazz, the unadorned chord can sound dated or trite so if a note can be added to it or substituted for one of the basic notes, it usually is. Here is the chord with other notes which can be used.

The image shows a musical staff in treble clef with a key signature of two flats (B-flat major/C minor). The notes on the staff are B-flat, D-flat, F, and G. Below the staff, the following labels are placed under each note: B<sup>0</sup> under B-flat, major 7th under D-flat, major 9th under F, and perfect 11th under G. To the right of the staff, the following labels are listed: minor 13th, augmented 5th, and sharpened 5th.

You can see that the chord is like a half-diminished with the top note one semitone less than the minor 7th note. Another way of looking at it is to think of it as the root-note, the minor 3rd, the flattened fifth and the major sixth.

Instead of trying to work out the intervals of all the added notes think of another diminished chord based on a root-note a semitone below. Notice that the chord itself consists of 4 notes each one being a **minor third above the preceding note**. This should make it easier to sing.

#### e. The **Dominant Seventh**

The dominant seventh is so named because it occurs naturally in the major and minor scales. If you build a chord in the manner described on V - the Dominant, this is what you would get, eg the C major scale is this: C D E F G A B C D E F G

Starting on V - the G you get the chord **G B D F**. In jazz, dominant sevenths can occur anywhere as long as they have a root-note, a major 3rd and a minor 7th.

The notes which can be added to this are shown below in different bars which correspond with different scales which can be used against them.

The image shows four musical staves, each starting with a G dominant seventh chord (G, B, D, F) in treble clef. 
   
a. Shows the chord with a natural 9th (A) and a natural 13th (E).
   
b. Shows the chord with a sharp 9th (A#) and a sharp 13th (E#).
   
c. Shows the chord with a natural 9th (A), a natural 11th (C), and a natural 13th (E).
   
d. Shows the chord with a natural 9th (A), a natural 11th (C), and a natural 13th (E), with a flat 9th (Ab) and a flat 11th (Cb) also indicated by a line through the notes.

The G7 at **a** is completely unaltered and can take the major 9th and 13th - G9, G13.

At **b**, as well as the major 9th and 13th, the chord can take the sharpened 11th - G13(+11).

At **c**, these are the notes which can be added when the chord is a thirteenth with a flattened sharpened 9th and 5th - G13(#9-5) or G13 (b9-5).

Not all of these added notes will be played in a single chord.

At **d**, both the 9th and the 5th are flattened and sharpened (ie. altered) - G7(#9-5) or G7(b9-5) or G7(b9-5), depending on which notes used, or G7(alt).

If you re-arrange the notes to form a scale., starting from the flattened 9th, you get what is called the **altered** scale

**Ab Bb B Db Eb F G Ab**

You can see that where a note is altered (eg. the 5th - D to become Db or Eb) the unaltered note is not included in the chord. It is possible though to use both sharpened and flattened altered notes in the chord.

As with the other chords, see how these added notes change the character of the chord on the piano. Sing them against the chord and get used to the feel of them. Also get used to working out the different categories of chords for all notes. This will prepare you for putting the right harmonies to a song which will in turn help you to memorise its form and the framework that exists for soloing over it.

This does not exhaust all the possibilities for chords as there are also superimposed chords and chords which defy simple classification which are a result of the lines of different parts going their separate ways. I would like to mention just one more chord however which is one of my favourites. This is a major seventh with a sharpened fifth. Try it - you might like it too.

*Next - scales and sequences*

## **Part II**

Looking back over the section on major and minor chords you will see that it says that the **(major) 6th** and **(major) 9th** can both be added to a major triad. For a C chord this will give you a **C69**.

We can do the same thing as we did with the altered dominant 7th altered scale and make a scale out of this chord. . By doing so, we end up with a Major Pentatonic scale.

C major pentatonic scale

Starting on the A, we get = A minor pentatonic scale

Therefore C minor pentatonic scale is:

For some strange reason, the minor pentatonic is the same as the major pentatonic a minor third above (the relative major). You would have thought that it would have been the same as the major pentatonic on the same note, with a minor third (C D Eb G A) which would be in keeping with the way you create other minor scales and chords, but someone goofed.

The major pentatonic has been used in folk songs from different countries from Far East Asia to Africa, Europe and America, including traditional songs such as *Swing Low, Sweet Chariot*, *Over the sea to Skye*, and the well-known theme from Dvorak's *New World Symphony*.

This scale can be used in various ways: 1) as an abbreviated version of major scales, 2) to evoke a simple folksong sound, 3) to fit over a complex chord progression which might otherwise require a number of scale changes, 4) to create *a wall of sound* à la Coltrane/McCoy Tyner by playing/singing them very fast. As the scale consists of scale steps mixed with intervals of a third, it gets away from sounding like someone running up and down scales.

The minor pentatonic is much loved by blues artists and rock guitarists. To get the usual blues scale, you need to include the flattened 5th as well. Bear in mind that the blues scale is derived from vocal music which uses a lot of inflections and bent notes. Here is the scale (with added major 3rd):

The blues scale can be used over many chords to give an earthy sound. It is usually best to avoid it in harmonically-rich ballads (unless they have a definite swing to them) and particularly avoid it over major seventh chords. Also try not to use it in operatic arias as it doesn't go down well with the audience. On the other hand when singing blues and bluesy numbers (plus funky, fusion and rock numbers) it is essential.

The best way to learn the blues is to grow up on a cotton-plantation in the deep South of the USA. Being black and oppressed is also necessary. Failing that, we have to simply make do by copying others,

just as Miles Davis and Herbie Hancock had to.

The blues usually refers to a 12 bar sequence although a 16 bar blues does exist which is like a 12 bar plus a tag. The 2 chord changes which make it into a blues occur on the start of the 5th bar and the 9th or 10th bar. Starting on the Tonic, the 5th bar goes to the Subdominant, then makes its way to the Dominant on the 9th/10th bar before returning eventually to the Tonic.

The Basic form of the blues is this:

Use the scale shown to solo over this sequence.

By adding a number of chords we arrive at one of the sequences used by be-bop musicians. Note that the same scale can still be used, or the soloist can go into other scales which fit over the chords.

Even a complex sequence such as **Blues for Alice** conforms to this basic form:

Gosh, you might say, that's interesting! Thereagain you may not. So we shall immediately turn to a few other sequences in which you can use the pentatonic scales to impress your school-friends.

In passages where a minor 7th chord lasts for several bars, you can get a distinct



sound by soloing on one of the pentatonic scales instead of the normal major scale (see Part 3). There are at least 3 possibilities:

**Dm7    F major pentatonic    C major pentatonic    G major pentatonic**

The first two, starting on the **minor 3rd** of the chord and the **minor 7th** (a tone below) the chord are easiest, while the latter, starting on the **perfect 4th**, is more discordant and should be handled more carefully. As these are very memorable scales you won't have to think of the theory behind it to do it. Just play the chord on the piano and sing the notes of the scales. It won't take long for them to sink in.

**You can also use the major pentatonic scale a perfect fifth above a major seventh or ninth chord and a major pentatonic scale a tone above a major seventh chord which has a sharpened eleventh.**

Now that's a very useful tip to give to the dustman the next time you see him. The examples below will hopefully demonstrate what I mean. If in doubt, ask the dustman to explain - he's probably a part-time jazz musician.

**C major 7  
(C major 9)                      G major pentatonic scale**

**C major 7 (#11)  
(C major 7 (-5))                      D major pentatonic scale**

Again play the chord and sing the scale several times over to get used to the sound. Jazz is all about producing different sounds.

*Enough to chew over for now. Next : the major and minor scales and the chords and sequences which they can fit over.*

### **PART 3**

## **THE MAJOR SCALE**

The major scale, or one of its various guises, is extremely important in jazz improvisation, and by learning where to apply just the major and minor scales you can tackle most of the standard tunes. This section will concentrate solely on the major scale and its associated chords, leaving the minor scale to the next part.

Fortunately there is only one form of major scale which we are concerned with and you are sure to be very familiar with it already. If you play the white notes on a piano from C to the C above it, you have the C major scale. On analysing it you will see

that it consists of the following intervals between successive notes:

*Tone Tone Semitone Tone Tone Semitone*

i.e. between the C and the D the interval is a tone (or major 2nd), followed by a tone between the D and E. Then between the E and F there is a semitone (or minor 2nd), etc. Try working out the notes of a major scale in an unfamiliar scale with reference to these intervals.

Of course you must not limit yourself purely to scalar passages, so try singing exercises in thirds, fourths or fifths, going up and down.

eg. C E D F E G F A G B A C B D etc. (3rds)

C F D G etc (4ths)

C G D A etc.(5ths)

E C F D G E A F B G C A D B etc (descending 3rds)

C E F D E G A F G B C A etc. (ascending-descending 3rds)

E C D F G E D A B G A C etc. (descending-ascending 3rds)

Then, intermingle some runs with some leaps, eg.

C D E G D E F A E F G B etc.

G F E C A G F D B A G E etc.

Patterns such as these will help you technically and give you ideas for melodic phrases.

Let's go back now to the C major scale and build 4-note chords on each step.

<b>C<sup>Δ</sup></b>	<b>Dm7</b>	<b>Em7</b>	<b>F<sup>Δ</sup></b>	<b>G7</b>	<b>Am7</b>	<b>B<sup>ø</sup></b>
<b>I<sup>Δ</sup></b>	<b>II<sup>m</sup>7</b>	<b>III<sup>m</sup>7</b>	<b>IV<sup>Δ</sup></b>	<b>V7</b>	<b>VI<sup>m</sup>7</b>	<b>VII<sup>ø</sup></b>

This figure shows that when any of these chords occur, singly or as part of a sequence, you can use the underlying scale to solo on it. Thus you can use the major scale on I for:

- 1) the major seventh chords on the tonic (I) and subdominant (IV).
- 2) the minor seventh chords on II, III and VI
- 3) the dominant seventh on the dominant (V)
- 4) the half-diminished on VII.

When confronted with one of these chords, you therefore have to work out what note the scale starts on. With the dominant seventh and half-diminished, there is no problem. But with the 3 minor sevenths, it is slightly more tricky. Luckily the chord sequence will usually indicate which is which. So have a look at the chords on the music to see how each chord is related to the tonic chord. For instance, a Gm7 in a piece in the key of F must be a II and therefore the scale is F major, whereas an Em7 in a piece in the key of G must be a VI, so the scale is a G major.

Where a modulation occurs, say, in the middle 8 of a tune, you will have to find the new tonic chord. This is often a major chord that follows a dominant seventh.

Now let's look at some typical sequences:

- a)  $\text{IIm}7 \text{ V}7$  - here, you can often use the major scale for both, especially if the dominant seventh chord ( $\text{V}7$ ) is a ninth, eg  $\text{D}9$ . However if the dominant seventh has any altered notes such as  $\#9, \text{b}9, +5$  or  $-5$  another scale is needed for that chord.
- (b)  $\text{IIm}7 \text{ V}7 \text{ I}$  - here you can sometimes get away with the one scale but beware of altered notes in the dominant seventh as they can often be found.
- c)  $\text{IIm}7 \text{ V}7 \text{ I VIm}7$  - comments as above.
- d)  $\text{IIm}7 \text{ V}7 \text{ IIIIm}7 \text{ VIm}7$  - comments as above.
- e)  $\text{IIIIm}7 \text{ IVm}7 \text{ IIm}7 \text{ V}7$  - comments as above.
- f)  $\text{I maj}7 \text{ IVmaj}7 (+11)$  [or  $\text{IVmaj}7 (-5)$ ] - same scale throughout.
- g)  $\text{I maj}7 \text{ IVmaj}7 \text{ IIIIm}7 \text{ IVm}7$  - same scale throughout.
- h)  $\text{I maj}7 \text{ IVmaj}7 \text{ IIIIm}7 \text{ IVm}7 \text{ IIm}7 \text{ V}7 \text{ I}$  - same scale for all chords except the dominant seventh which may be altered.

Too many  $\text{II V I}$ 's nowadays can sound a bit old hat and a more modern sound is achieved by doing away with the dominant seventh and giving the minor seventh chord a dominant bass note.  $\text{II/V I}$

When this occurs you can use the same scale throughout.

*What all this means is that you can often use just the notes of the one major scale to solo over several chords in a sequence which makes life a lot easier.*

If the chord continues for some time at a medium to fast tempo you can be a lot freer and incorporate the different chords (arpeggios) found on other notes within the scale, for example:

G      Dm7      Am7      Dm7      G              F $\Delta$       Em7

chord:C $\Delta$                       /                      /                      /                      /                      /                      /

These sort of extended 1-chord passages can be found in introductions, endings, vamp passages, and bridge passages as well as in the tune itself (*Invitation*, for example).

Instead of the one chord you may find a **IIm7 V7** sequence, eg  $\text{Dm}7 \text{ G}7$  or a **I maj 7 IVmaj 7** sequence, eg  $\text{Cmaj}7 \text{ Fmaj}7 (+11)$  in which you can do the same sort of thing.

All of this may sound very academic, but you will find that a short time spent looking at the chords of a song beforehand and working out the notes of the chords and the scales you can use over them will work like magic and increase your ability and your confidence tremendously when you actually get to sing the songs. Don't worry if you find it hard-going at first and don't get put off by difficult chords or chord sequences.

It will all make sense given time. In the meantime, take heart from everything new that you've learned.

## MODES

When a single chord is used for a long time it could be that a *mode* is required. Don't let this worry you. And don't think you have to learn them as separate entities - leave that to the purists who delight in making life difficult for themselves and others.

Modes are merely major scales starting on different notes of the scale.

From **D to D** it is called the *Dorian* mode (the major scale a tone below)

From **E to E** it is called the *Phrygian* mode (the major scale a major third below)

From **F to F** it is called the *Lydian* mode (the major scale a perfect fourth below)

From **G to G** it is called the *Mixo-Lydian* mode (the major scale a perfect fifth below)

From **A to A** it is called the *Aeolian* mode (the major scale a major 6th below/ a minor 3rd above)

From **B to B** it is called the *Locrian* mode (the major scale a semitone above).

The *Dorian* is the one most used in jazz (eg. **So What**); the *Phrygian* gives a Spanish sound; the *Lydian* is very pretty and used mainly in Bossa Novas and soft Latin numbers; the *Mixo-Lydian* gives an authentic hard Latin feel: the *Aeolian* is occasionally used as a change from the Lydian; while the *Locrian* is hardly ever used.

The challenge here is not to sound boring with no change of scale or chord to bring variety. Use all the tricks you can muster - some of which are outlined above. Also go for rhythmic variations, long notes, rests and prolonged belches. Do watch and listen for when the music changes. The members of the band will often change their positions, wake up and put away their copies of Penthouse when the chord eventually changes, so that should be a clue. Don't worry if you get lost. Ten to one, at least half the band will also be lost. The best solution is to laugh hysterically. I could mention other ways to distract the audience from the fact that you've just screwed it up, but I can't think of any...And besides, I know that you won't ever come unstuck

## PART 4

### THE MINOR SCALE

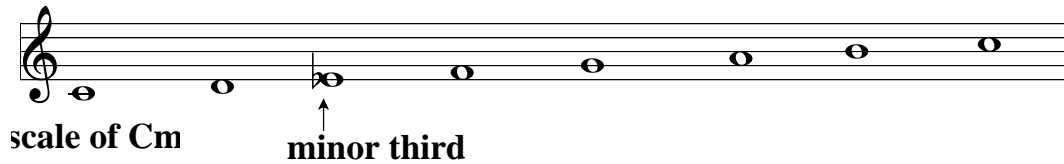
The minor scale which we will be looking at here is probably the most useful scale you'll ever come across. It is somewhat like a Rosetta stone which can unlock the secrets of most of those complicated chords that scare the pants of many musicians. If you're quite happy about musicians minus their pants, don't bother to read on...

...Oh dear, I seem to be suddenly talking to myself. Well, in case I learn anything I might as well carry on.

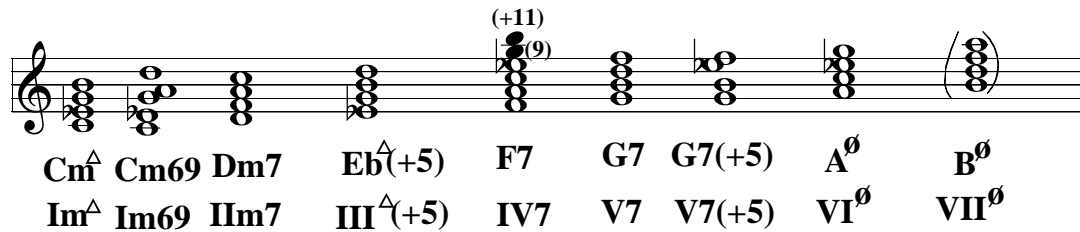
There are several minor scales, some of which will be mentioned at a later date. The most versatile one, however, is what is called in classical music theory

*the ascending form of the melodic minor scale.*

This is rather a mouthful, as Monica might have said, so I'm going to rename it simply *the minor scale* and be done with it. It consists of all of the notes of the major scale but with a minor 3rd replacing the major 3rd. The notes of the scale are exactly the same coming down as going up.



If, as in the major scale, we construct 4-note chords on each step (apart from the second chord) we can see at a glance which chords it will fit. As chords are built from 3rds a few alternatives arise when the **interval** of a major or minor 3rd is available within the notes of a chord, eg. G7 and G7(+5).



The chord in brackets indicates that this particular scale is very rarely used with it as other less ambiguous scales are generally preferred. For all intents and purposes we can forget it. That leaves us with:

- a) **a minor chord - either a minor major 7 or a minor 6<sup>9</sup>** with the scale starting on the same note. (*1st 2 chords*)
- b) **a minor seventh** - you wouldn't often choose this scale for a minor seventh chord unless the chord was found in a sequence with the other chords shown above. The scale starts a tone below the root of the chord. (*3rd chord*)
- c) **a major seventh with a sharpened 5th**. (The fifth of an Eb triad would be Bb) This chord is not often found I should add. The scale starts a minor 3rd below the root of the chord. (*4th chord*)
- d) **a dominant 7th (9th) or a dominant 9th with a sharpened eleventh** (misspelt often as a flattened fifth). The sharpened eleventh would appear in the chord if you add 2 more notes to this four-note chord. This is a very common use for this frequently encountered chord - so take note of this one. The scale starts a perfect fourth below the root of the chord. (Note that the 9th of the chord must not be altered) (*5th chord*)
- e) **a dominant 7th (9th) with a natural fifth** - as the scale contains the natural and the sharpened fifth against the natural fifth in this chord, it is not often used and can be safely forgotten (*6th chord*) unlike...

f) **a dominant 7th (9th) with a flattened sixth/augmented fifth** - this chord is better as for some reason it doesn't clash so much with the scale and so is quite often found. The scale starts a perfect fifth below the root of the chord.(7th chord)

g) **a half-diminished chord** - very common usage. The scale starts a minor 3rd above the root of the chord.(8th chord)

(In case you're bored, the next one is very sexy)

h) **an altered dominant 7th** - WOW!!!!!!!!!!!!!!!

If you add all the notes of the scale to this chord you end up with a dominant seventh with a flattened fifth and ninth and a sharpened fifth and ninth. This is an extremely commonly-found chord, partly because of the variations in the notes that are possible.

The scale starts a semitone above the root of the chord. You will see that the Eb is (enharmonically) changed to a D# here to show that it forms part of a B7th chord. (10th chord)

There are chord sequences in which several of these chords can be found together, in which case you can use the same scale for all of them (Cm scale in these examples). Here are a few you might encounter.

**F7 Cm69** [IV7 Im69]

**G9(+5) Cm69** [V9(+5) Im69]

**G9(+5) Cm69 Aø Dm7** [V9(+5) Im69 VIIø IIIm7]

**Cm69 B7(alt)** [Im69 VII(alt) and vice versa.]

Before proceeding I should put your mind at rest by saying that there's no point in trying to remember all this theory. What, now he tells me! You can always refer to these notes when or if you ever need to. The point I would like to stress though is just how useful this scale is and to show where you can use it.

It is therefore extremely beneficial to get to know the scale thoroughly. You can do this by singing exercises based on the scale. Start with the simple scale before trying some patterns. You can use all the exercises shown in Part 3 by substituting the minor 3rd for the major 3rd whenever it occurs. Conversely, you can apply the following new ones to a major scale by swapping the minor 3rds for major 3rds.

1) D C Eb D F Eb G F A G B A C B D C

2) D C D Eb D Eb F Eb F G F G A G A B A B C B C D C

3) C Eb G D F A Eb G B F A C G B D A C Eb B D F C Eb G

4) G Eb C A F D B G Eb C A F D B G Eb C A F D B G Eb C

5) C Eb G A F D Eb G B C A F G B D Eb C A B D F G Eb C

6) C E<sub>b</sub> G B D F A C E<sub>b</sub> G B D F A C E<sub>b</sub> G  
 B D F A C E<sub>b</sub> G B

These are all very standard patterns. So now make up some of your own. Then vary the rhythm and dynamics and finally sing some melodic phrases using just these notes.

You are now in a position to go from one scale to another one. Start with something simple, such as *8 bars on D*, *8 bars on Dm* (1 note difference)  
 then *8 bars on Cm*, *8 bars on Dm* (2 notes difference)  
 then *8 bars on C*, *8 bars on E<sub>b</sub>* (3 notes difference)  
 then *8 bars on F*, *8 bars on D<sub>b</sub>* (4 notes difference)  
 then *8 bars on A<sub>m</sub>*, *8 bars on A<sub>b</sub>m* (5 notes difference)  
 then *8 bars on E<sub>b</sub>*, *8 bars on E* (6 notes difference)

In doing this you might find it useful to establish the starting-note of each of the scales, and whether it occurs in both scales or not. Also, see which notes change in the case of closely related scales, or which notes are common to both in consecutive scales which have many differences. For instance, in the last example, notes which occur in both the scales of E<sub>b</sub> and E are **E<sub>b</sub>(D#)** and **A<sub>b</sub>(G#)**.

Having had time to contemplate the impending change of scale, you can now torture yourself by cutting down to 4 bars each, then 2 bars, then 1 bar. Good luck.

***Confused? Call the Theory Help Line - c/o George Bush***

### TEST

1. Name an army rank, (clue - so the Sargeant told me).
2. What is a (young) underground worker called?
3. If your dentist told you that the plaque on a patient's teeth had changed what would he be referring to?
4. Pianists often refer to Norwegian fiords and Norwegians. Could it be true that they are all Vikings, or is there something else they may be talking about?
5. If a piece of music is in 4/4 or Common Time, how many beats are there to a bar?
6. How would you refer to the last one of Snow White's dwarfs who was always bossing people about?
7. My hard-wearing trousers (not jeans) have shrunk in the wash. What have I ended up with?
8. If I divide them into two pieces, what have I got now?
9. Which is the odd one out? Ella Fitzgerald, Sarah Vaughn, Annie Ross, Anita O'Day, Billie Holliday, Ronald Reagan.
10. The higher intervals of a chord are called: a) replacement windows, b) patios, c) front doors, d) extensions, e) gutters, f) double-glazing salesmen?
11. Which is the wrong note in this major scale:  
 F G A B<sub>b</sub> C **D<sub>b</sub>** D E F ?
12. Would you say that most men prefer sexy women singers to a savage rottweiler?
13. If a dyslexic bandleader said he would give you an OSLO, would he be:

1. offering to thrash you with birch leaves after having a sauna bath with him;
2. including you in a smorgasbord;
3. inviting you to a season of marauding and pillaging in his long-boat;
4. asking you to scat one or more choruses.

Remember, the wrong answer could turn out to be somewhat embarrassing.

14. Your big break at the Village Vanguard in New York has come. Shortly before the opening night you learn that you are to share the spotlight with a singing chihuahua and the 5-year old winner of the Miss Junior America competition. How do you show your appreciation for this honour?
15. You are performing late at night in a nightclub when you discover that the only customers left are a couple making love in the back-seats. Do you:
  - 1) address all the songs to them;
  - 2) speed up the tempo where appropriate;
  - 3) give them the microphone and turn it into a sort of 'kareoke' evening.
16. How many flats are there in the key of D major?
17. How high's the moon?
18. How deep is the ocean?
19. How can you tell when a scat chorus has come to an end? Is it: 1) when you notice that all the band have packed up and gone home. 2) when you hear the birds singing the dawn chorus. 3) when it's time for you to collect your pension?
20. Spell jaz.

### **SCORE**

- 21-30 You show a lot of initiative in doing the wrong test. You will go far.  
 15-20 You've already seen the answers. You're disqualified.  
 10-14 You spend too much time doing silly quizzes.  
 2 - 9 You don't spend enough time doing silly quizzes.  
 -1-+1 Excellent. I'll arrange a gig in Carnegie Hall for you tomorrow.  
 (only joking!)

### **ANSWERS**

1. Major.
2. Minor.
3. The Altered Scale.
4. Chords - Firds/Chords - Cockney rhyming slang.
5. Either 3 or 5 depending upon which musicians you're working with.
6. The Dominant Seventh.
7. Diminished Chords (Cords - Corderoys)
8. Half-Diminished Chords
9. Annie Ross. All the others are American.
10. d.
11. Think about it.
12. It depends on what the Rottweiler looks like.
13. Probably the answer is all 4.
- 14 - 20. No answers currently available.

### ***PART 5***

*To make a break from scales and chords, here are some general points about soloing.*



1. It's usually best to *start gently with simple phrases* and long notes with quite lengthy rests. That gives you the opportunity to feel your way into a solo and get accustomed to the backing. Then build up a series of climaxes, interspersed with some more relaxing moments. Aim to finish a solo on a big climax or shortly thereafter. This applies particularly to a long or open-ended solo. In shorter solos you don't have the luxury of building things up slowly. But the general principal remains the same.
2. *To build a climax you don't have to go for lots of notes in a high range and at maximum volume.* It can also be done through repeating phrases or just a single note and through very astute timing. Listen to any solo by Miles Davis and you will observe this. It takes a lot of skill and nerve to insert long rests into a solo-line. Try and make them as effective as possible.
3. *Watch what note you end a phrase on.* If you end up every time on the same note, it will sound boring and if that note is the tonic, it will give the impression that you have finished since most tunes do actually end on the tonic. You need to sustain interest and build up tension. You can do this by ending phrases on different notes. This will give the over-all solo a semblance of continuity in which phrases relate to one another. This accounts for the effectiveness of many tunes - think of songs like: **All the Things You Are**, and **Round About Midnight**. Phrases, incidentally, may be separated from each other by rests or sometimes there may be no actual break between them.
4. *Look/think ahead* so that your mind can have a chance to adjust to the new set of chords/scales, rather than just responding to them at the time or just after they come up. It's rather like driving a car and looking ahead for any potential hazards. If you know where a difficult passage occurs in advance you can think about how you are going to cope with it. Remember that all musicians practice going over the chord sequence of a tune many many times. So do the same and practice soloing over the songs you do. The more familiar you are with them the more accomplished you will become.
5. *Vary such things as the rhythm of your line, the dynamics, and the length of the phrases.* Keep something back as an element of surprise. Having a few tricks up your sleeve comes in handy when you are not feeling at your best or when your mind goes blank.
6. Some musicians have a penchant for *licks*. No it's not what you're thinking. What I mean is that some people learn phrases from books or memorize other people's pet phrases and use them where they can fit in their own solos. I personally don't go along with this idea, except when it comes to common blues cliches which everyone recognises and which help to give an authentic blues to a solo. You may disagree.
7. Use the following devices to develop of short phrase:
  - a) *repetition*, but don't overdo it. On the third repeat of a phrase you might have to add a slight variation. This does not apply so much to repetitions of just a few notes.

- b) *sequence*, ie repeating a phrase but starting on a different note (**Blue Moon**, illustrates this),
- c) *repeating the notes of a phrase in a different rhythm*,
- d) *repeating the rhythm of a phrase using different notes*,
- e) *extending a phrase by adding new notes when repeated*,
- f) *shortening a phrase when repeated*,
- g) *following the general contours of a previous phrase but using different notes and intervals*,
- h) *inverting a phrase* - what went up the first time goes down the next time,
- i) *playing around with the notes of a very simple short phrase*.

Classical music uses various other devices, but then this is spontaneous jazz. Don't treat it like an intellectual exercise.

8. Good practice at learning how to develop phrases is to *play around with the phrasing of the tune itself*. This is also an important skill in itself. A lot can be done by merely changing the timing. Frank Sinatra, Sarah Vaughn, and Dianne Krall are expert at this. Try to avoid rushing - delaying the notes in a phrase is usually much more effective and don't paint yourself in a corner by delaying one phrase only to have to rush ungainly to get the words in in the following phrase. Develop this skill so that you can sing a tune differently each time you sing it. You can also have fun in embellishing the tune. This is a sort of half-way stage between singing it straight and scat-singing over the changes. You can learn a lot this way.
9. When soloing with scales in mind, you don't have to stick rigorously to just the notes in the scale. You can also include *chromatic passing notes and runs*, and all manner of other notes which are given many different names in various texts. Starting a phrase or jumping to a semitone below a chordal-note (a note in the chord) is often done in be-bop, as is delaying a note by encircling it a tone or semitone above and a semitone below. Sometimes you can also include blues notes (b3, b5 and b7). Playing outside the changes in a very distant key is possible too when there are long periods of just one chord. Be very careful about this though as it may just sound as if you are singing the wrong notes - it's probably more of an instrumental thing to do.
10. Although the emphasis in this course is on scales rather than chords, you should not think that the chords are not important. The chordal-notes will sound more *consonant* than the non-chordal ones. There is also the matter of *resolving* certain notes in certain chords. In classical music, the seventh of a dominant seventh (and minor seventh) must resolve down a tone or semitone, as must the fourth note of a major chord. I have not gone into this in detail because it is so grounded in Western music that we are all exposed to that it seems a natural thing to do. In jazz, you have more freedom on when to resolve such notes ,so probably the best thing to do is to forget about it completely and if you get it wrong, which I doubt, you will soon be picked up on it.
11. *Vertical soloing on the chords* rather than the scales is useful at times. When you feel the need to pinpoint a certain progression or draw attention to certain chordal notes it can be very effective. And when the chords change rapidly

it is often easier to think of the chords rather than the scales if a common scale cannot be found which links several chords together. **Round Midnight**, for instance lends itself to this type of approach.

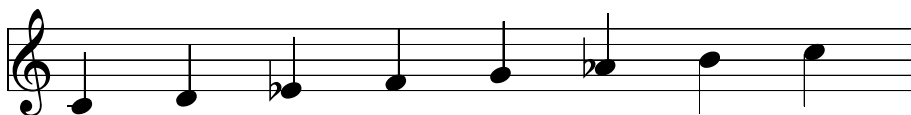
12. In difficult passages where chord changes come fast and furious, don't be afraid to ***leave it to the rhythm section***. If you try and squeeze everything in you might go astray. A single note or two here and there can often sound much better. The members of the rhythm section also like a chance occasionally to show their presence.
13. Listen to the ***bass*** (if he or she is any good). The root note of the chord should be played on the **first beat** of the bar or wherever the change occurs. You can then listen out for any characteristic features in the chord sequence, such as descending or ascending lines or strange intervals.
14. Listen to the ***piano-player*** (again if he or she is any good) to ascertain what the chord is and also to pick up on any melodic phrases he/she may come up with in comping.
15. Listen to the ***drummer*** to fit into the time and to get the overall rhythmic feel. Also you can pick up on any rhythmic phrases he/she may play.
16. Try not to listen too attentively to horn players (ie, where there is more than one) when they are busking an accompaniment to a song, **particularly a ballad**. They all have their own idea of what the harmonies are. Stick to the chords laid down by the pianist and bass player and let the horn players adjust, otherwise, you can easily be thrown.
17. Although a lot of this information is theoretical but still useful for difficult and unpredictable sequences, you need not worry yourself too much about it as you can solo over most Standards, including a lot of jazz tunes, by ear.

*Next time we shall look at the Harmonic Minor and then the Diminished Scale.*

## **PART 6**

### **THE HARMONIC MINOR SCALE**

The **harmonic minor scale** has a flattened 3rd (which makes it a minor scale) and a flattened 6th (which makes it ...difficult to remember). This, for example is the C harmonic minor scale:



The distinguishing feature of the scale is the interval (a minor 3rd) between the flattened 6th and the seventh notes which gives it a slightly Middle Eastern touch.

Being rather fond of camels myself, I find this scale quite appealing. Unfortunately classical composers and hymn-writers did not approve of this particular interval, preferring to use the much less interesting melodic minor scale for their tunes and using this scale just for harmonic purposes. Let us look then at the harmony derived from it.

$Cm^{\Delta}$   $D^{\emptyset}$   $Eb^{\Delta(+5)}$   $Fm7$   $G7$   $Ab^{\Delta}$   $Abm^{\Delta}$   $B^{\emptyset}$   $D^{\emptyset}$   $F^{\emptyset}$   $Ab^{\emptyset}$   
 $Im^{\Delta}$   $II^{\emptyset}$   $III^{\Delta(+5)}$   $IVm7$   $V7$   $VI^{\Delta}$   $VIIm^{\Delta}$   $VII^{\emptyset}$   $II^{\emptyset}$   $IV^{\emptyset}$   $VI^{\emptyset}$

Note that in the  $Abm$  major chord the  $B$  is written as a  $Cb$ . This is merely done to try and confuse you.

### When do you use a harmonic minor scale, you might ask?

Or thereagain you might not give a toss. But I'm going to tell you anywhere, so there.

1. It can be used for its own sake - ie. for the evocative sound it produces where you have just one chord (a minor triad, or more unusually a minor major seventh, or sometimes a dominant seventh) for many bars at a stretch. An introduction or ending to the song *Caravan* could make use of it, for example.
2. Its main use is in sequences which contain the chords shown above, particularly in minor II V sequences, eg.  $D^{\emptyset}$   $G7$ . If the following chord is a minor major 7th chord (and not a minor 6th chord) the same scale can be continued for this chord. eg  $D^{\emptyset}$   $G7$   $Cm$  major.
3. It can also be used against a diminished chord as the diagram shows. The scale would start a semitone above the root of the chord, eg.  $Fm$  harmonic for an  $E$  dim chord. Alternatively, you might wish to use...

### THE DIMINISHED SCALE

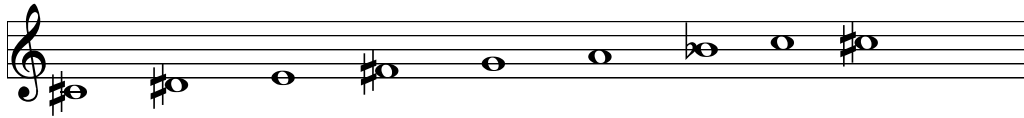
The **diminished scale** is one note longer than the other scales mentioned so far and is therefore the musician's reponse to people who believe that size matters.

It consists of alternating tones and semitones producing an eight-note scale, thus:

T S T S T S T S

#### C diminished scale

There are only 3 diminished scales, the other 2 being:



**C# diminished scale**



**D diminished scale**

E $\flat$  diminished, F $\sharp$  dim and A dim are the same as C diminished scale;  
E dim, G dim and B $\flat$  dim are the same as C $\sharp$  diminished scale; and  
F dim, A $\flat$  dim and B dim are the same as D diminished scale.

There are very many chords derived from this scale, but scalar passages are often used with the occasional leap. Chords built on the 1st, 3rd, 5th and 7th notes are all diminished chords themselves. Chords built on the other notes are majors, minors, half-diminished, minor sevenths, and various altered dominant sevenths.

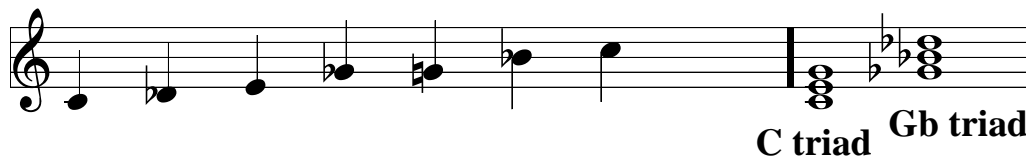
**The diminished scale is used mainly -**

1. Where the underlying chord is a diminished one
2. Where the underlying chord is a dominant seventh with a thirteenth and sharpened or flattened 9th and a flattened or natural fifth. In practice, this scale is often used instead of the altered scale, provided that the chord hasn't got a sharpened fifth.

The diminished scale can sometimes be used for a number of consecutive chord changes, usually dominant sevenths on different root notes. When used like this it takes on a distinctive sound which is neither major nor minor. A must for the girl who has everything. The piece *Little Demon* in the Collections section is made up entirely of notes taken from the diminished scale.

A mini-version of the diminished scale is the **tritone scale**. If you incorporate the notes of two major triads a diminished fifth apart you end up with this scale:

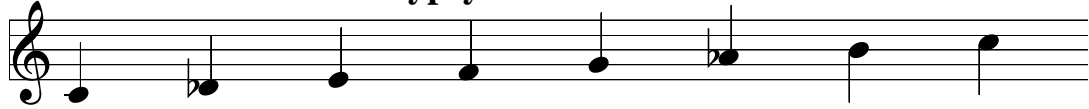
**C tritone scale**



As you can see all these notes fall within the diminished scale a semitone above (C $\sharp$ ). Descending passages can sound quite bluesy in a kind of oriental way. Ideal for tunes like *Sheik, Rattle and Roll*.

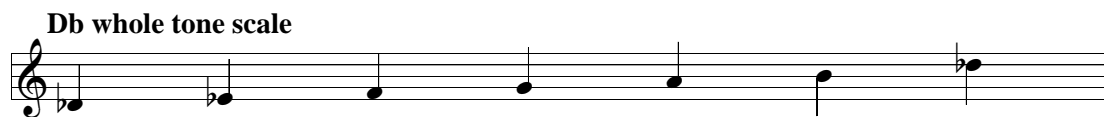
If you're feeling really exotic, you might as well use the well-known **oriental scale**:

## Oriental/Middle Eastern/Gypsy scal



This has 2 sets of minor 3rd intervals occuring between the Db and E and the Ab and B. It can be used mainly with a major triad on the tonic or with a drone (tonic or tonic and dominant pedal). Something to practice when you are having a Turkish bath.

The only other scale you might come across is the **whole-note scale**. This consists of consecutive tones. Luckily there are only two of these scales, which are:



For whole-tone scales on other notes you merely start on the relevant note in one of the 2 scales above and keep going. Chords produced are all augmented triads.

The whole-tone scale is seldom used in jazz, although it can be applied to augmented triads or dominant seventh chords with sharpened fifths. Unfortunately, it smacks too much of the arrival of the good fairy in a pantomime and I for one don't relish the idea of being smacked by a fairy in a pantomime. However, you may like it...

And there you have it. Jazz theory in a nutshell. I hope this has been useful or may be sometime in the future. Good luck!

This is to certify that  
**YOU**  
have completed this course

This certificate entitles the holder to 5p off a packet of toilet-tissue  
at the nearest Sainsbury's/Walmart superstore.

# SUPPLEMENT

## HOW TO PLEASE MUSICIANS

### Get the key right

Without music - a lot of time can be wasted if you don't know what key you sing something in. So write down the key for each song or remember it.

Also find out what your highest note and lowest notes are in your normal range, bearing in mind that nerves or other factors might affect this a little bit. Then, if musicians have to guess, it won't be too far out.

You may not realise that standards have a set key (a few have two) which they're always played in. Many young and young-ish female singers tend to sing a fourth or fifth below this key. For example, *The lady is a tramp* is in C, so for most female singers it will be in G or F. As women age, their voices drop so an even lower key (say, Eb) would be more appropriate then.

Male singers can often sing in the written key, except for those with very low voices (basses).

Try very hard to avoid difficult keys as the musicians are likely to struggle. The difference between F (an easy key) and F# (a very difficult key) is only a semitone so opt for F every time. There may be an occasional note which you feel a little bit uncomfortable with but that's infinitely better than having a faltering backing with a number of wrong notes which could easily throw you.

The **easy major** keys are:

**C** (no flats or sharps)

**F** (1 flat)

**Bb** (2 flats)

**Eb** (3 flats)

**Ab** (4 flats)

**G** (1 sharp).

Horn, ie. front-line players don't mind **Db** (5 flats) but they don't like

**D** (2 sharps) or **A** (3 sharps) very much as it puts their instruments into more difficult keys.

Easy **minor keys** are:

**Am** (no flats or sharps)

**Dm** (1 flat)

**Gm** (2 flats)

**Cm** (3 flats)

**Fm** (4 flats)


**Em** (1 sharp).


Remember that musicians will very often have to transpose your songs. This can be quite tricky, or it can be extremely harrowing, depending on the chord

sequence. If you want to sing something adventurous in another key, get someone to transpose the chords for you. It's worth it for all concerned.



### **The "geography" of written music**

It's no use giving written music just to the pianist: the bass player must also have a copy, and the drummer should know what's going on too. If in doubt, photocopy the parts for the bass-player and drummer.

There are a few things on written music which indicate the "geography" of the piece. **DC** (or Dal Capo) means go back to the top. **DS** (or Dal Segno) means go back to the sign. The sign looks like this  which is like a capitol S with a diagonal line through it and two dots on either side. I have seen some strange marks on singers' music - it's much easier to write the proper sign to avoid confusion.

In conjunction with the DC and DS there are other things. The most straightforward is where it says DC (or DS) al fine. **Fine** means the finishing point. Instead of this, there is often the instruction DC (or DS) al . This means skip from this point (it's placed at the end of a bar) to the **CODA**.

The other thing to watch out for are repeats which look like this

: (repeat this bit of music) 

It would be handy if you could highlight these things because in many places the lighting is atrocious and on many sheet-music copies the signs are in very small print.

One last point with regard to written music: if you have individual pages, for instance photocopies of the sheet-music, do not staple them together. It can be difficult to turn over. Instead, tape them together and then fold them up like a concertina with the first page uppermost.

### **Tempos**

You know what tempo you want a song played at so be prepared to count it in. If it's in 4/4 and moderate to fast tempo, it is customary to give two bars count-in, like this 1, 2, | 1234 | - note that the first 2 falls on the 3rd beat! Don't lower your voice on this 2 otherwise it will sound like that's all you're giving. You might also want to say "I'll give you 2 bars in" - that should impress everyone.

At slow tempos, only one bar might be all that is needed - (1,2,3,4), lowering your voice as you go.

For songs in 3/4, a two-bar count-in would be 1, 2, 3 | 1, 2, 3 | . The same points also apply.

If you start singing straight-away without an intro, which is risky in getting the pitch right, you might prefer to click your fingers instead or get someone else



to count for you.

Where you want changes of tempo, colla voce passages and rits (slowing the music down) inform the band about it beforehand and be very clear about it, especially if there is no music. It can often go haywire if not everyone knows what's going on. Pay special attention to the drummer.

**If faced with musicians who are not up to it...**

...do your best anyway but don't try and show them up and humiliate them in front of the audience. The audience may well sympathise with them, and the musicians may make things awkward for you. Try and reach a compromise. For instance, don't attempt really difficult numbers. If the bass player or pianist can't read "the dots", they will make up for it by having good ears. By including chord symbols with the notation can often help as most musicians in the jazz field can read them even if they're not good at reading notation.

All this sounds a lot of work. But for musicians to learn an instrument can take years so a bit of effort on your part is only fair and you will gain much more from it.