

## LESSON 6. PLEASING THE EAR.

### 6.1 Harmony

#### *The major 7th chord.*

In lesson 4 we introduced the 7th chord by adding a minor 3rd above the major triad. This chord is a 'leading' chord tending to move the sequence to the chord a 5th below.

In this lesson we add a MAJOR 3rd to the major triad and produce what is described as a Major 7th chord. This chord sound is definitely similar to the basic triad and the major 7th can be used as a SUBSTITUTE for the major triad adding more variety.

The major 7th leads nowhere, the sound is firmly positioned on the root, and occurs mostly in its root position, although it can be used in all its positions when performed in arpeggiated manner. The chord will be seen frequently on I and IV of the scale, thus in the key of C the symbols are CM7 and FM7.

Ex.1 shows a complete list of major 7th chords for memorising.

A typical progression would be –

CM7 FM7 Dm G7 C

See Ex.2.

### 6.2 Bytonality

#### *Rootless chords & intonation.*

Even at this early stage it is possible to deal with aspects of modern sounding practice, and one particular technique consists of using what appears to be two chordal stratas at the same time, or in synchronisation.

If we remove the ROOT from the major 7th chord and place it in the bass, we get what appears to be a minor chord with a bass note which is a 3rd lower.

For example      CMAJ7 =  $\frac{\text{Em}}{\text{C}}$       FMAJ7 =  $\frac{\text{Am}}{\text{F}}$

Now, since the upper structures have the form of triads, Em and Am, they can be inverted. See Ex.3.

Furthermore it is clear that Em could be used as a substitute. This means that we could have an interesting variation in place of the normal major 7th.

Taking the chord progression given in Ex.2. we could substitute the following –

$\frac{\text{Em}}{\text{C}}$      $\frac{\text{Am}}{\text{F}}$     Dm    G7     $\frac{\text{Em}}{\text{C}}$

This means that improvisation on the Em chord, for instance, could take place against a background or rhythm section playing the C major chord, or, in the case of multinote instruments like the piano or organ, the right hand could use the Em chord while the left uses the C major chord.

In some cases a complete conversion can take place through the REMOVAL of the roots, so that the progression C F Dm G7 C becomes Em Am Dm G7 C. The original triad is still used to end the progression. See Ex.4.

THE EFFECT IS QUITE INTERESTING AND MODERN.

Notice how we have adjusted the voicing from Ex.2 to Ex.4. This has no purpose other than to illustrate the possibilities. When developing chord sequences always EXPERIMENT with the voicing and LISTEN to the effect.

ALWAYS SEARCH FOR INTERESTING AND SMOOTH PROGRESSIONS.

BYTONALITY is not always explained in this way but remember, our purpose is to help you to understand the principles in a way which makes it is easy for you to apply them under conditions of improvisation. Furthermore, you need to be aware of possible substitutes to the original harmonic progression as we discussed in 5.2.

Don't confuse 'bytonality' with any compromise on intonation, a completely unrelated issue. As we said in lesson 2 the notes of these substitute chords are all notes of the major scale and they will sound perfectly 'in tune', the effect of playing Em and omitting C is INTERESTING and UNEXPECTED, it is not 'hard' on the ears.

The INTONATION problem for you and every jazzmen is correctly pitching the notes you are thinking about. Correctly fingered notes can still be out of tune because the majority of instruments are NOT ENTIRELY MECHANICAL and in the case of wind instruments and fretless strings, precise pitch is only obtained by ongoing 'adjustment' during playing. Even fret board instruments require frequent string tension adjustment. It is perhaps only the piano which can be relied upon to sound correct pitches for some time after it has been tuned.

For most instruments -

**CORRECTLY PITCHING NOTES REQUIRES CONSTANT ATTENTION.**

Thus, it is clear that an instrument can be 'in tune' in the sense that it has been tuned to the correct piano or tuning fork pitch BUT it can be, and all too often is, played with faulty 'intonation'. Think of it this way; tuning is to do with the instrument, intonation is the responsibility of the player.

The problem is exacerbated by the remarkably sensitive nature of the ear which can discriminate frequencies which are far less than a semitone apart. The trouble is that small deviations in lip pressure, string tension or finger position can result in notes which sound flat or sharp. It is this type of 'out of tuneness' which is distracting and often painful for listeners.

Certainly playing 'bum notes', which are not part of the chord structure or not 'legitimate' passing notes will sound wrong; they will sound, in fact, like 'bum notes'. But the player who gets the right fingerings but fails to control the pitch produces a more insidious intonation failure.

Apart from training your ear as will be outlined in detail below, see 6.6, every time you play you must strive for the correct pitch. Here are some tips –

- always TUNE UP to the piano at the start of any playing session
- LISTEN to each note you play and critically appraise it for pitch, think PRECISION
- ANTICIPATE the sound in your mind before you produce it, if you correctly pitch the note in your imagination the outcome will be right
- practice 'difficult' intervals, most trouble is experienced with wide, unusual intervals. Very high and very low notes also give trouble
- practice long notes, practice playing by ear not sight reading, think of notes by sound not name.

Good intonation is a MENTAL accomplishment not a physical one!

### **6.3 Melody**

#### ***The leading note.***

Melodic style becomes more versatile when the major 7th is used, and when it is subjected to decoration - see Lessons 3 and 4 - it introduces a new flavour to the major chord through a new melody note.

Ex.5 shows an example in the key of C, with analysis, and this should be practised, transposed and memorised.

Ex.6 to 8 introduces the major 7th chord into progressions, giving them a different 'twist'.

The major 7th note itself is interesting because it naturally leads up to the tonic. It is in fact called the 'leading note'. This semitone 'lead' is very compelling and we have seen it in the context of chord decoration in 3.3.

Try to hear this tendency for yourself by playing arpeggiated major 7th chords and phrases. You will find finishing your melody on other chord notes is feasible but the 7th feels 'unfinished'; the 7th WANTS TO MOVE ON UP TO THE TONIC.

Don't confuse this leading note tendency with the FLAT 7th of the 7th chords we met in lesson 4. Here, with the CM7, the melody which wants to move to the tonic note but we are already firmly on the tonic chord. In the case of the flat 7th, C7, it is the chord itself which wants to move down a 5th to the F tonic.

The FOURTH note is also interesting because although it is a 'simple ratio' natural consonance, see 3.2, you will find that finishing a phrase on the 4th is also unsatisfactory. It sounds OK as part of a melodic run but finishing on it feels inadequate?

There are two possible reasons for this –

- firstly, on the C major chord, the 4th is overshadowed by the 3rd and the ear is satisfied only when it RESOLVES DOWN TO THE THIRD.
- secondly, it can appear that you have ANTICIPATED A CHORD CHANGE to F. The subdominant is, after all, the next 'logical' place for a tonic chord to move, i.e. down a 5th.

Thus the 4th and 7th tend to be transient notes for the improviser to be USED WITH CARE.

The problem with the 4th and the 7th is not only because both want to 'go somewhere' but also because their harmonies are difficult. The F and the B are the ONLY two scale notes which are 6 semitones apart, a 'TRITONE', which is a dissonant interval. Check that you understand how only these particular notes produce the tritone; once again it is explained by the characteristics of the tetra chord intervals of the major scale.

We will return to the tritone and its significance in later lessons.

Thus the F and B don't sound good together, try them and listen. It follows that F should be avoided with the CM7 chord unless it is a passing note.

It is not surprising that the common 'pentatonic' scale avoids these two 'problem' notes. See lesson 9.2. In contrast the second and sixth degrees are quite stable and benign in this way, they are part of the pentatonic scale and used frequently by the improviser.

Thus, we have another 'tip' where understanding the theory can help the improviser to avoid otherwise unexpected difficulties.

## 6.4 Rhythm

### *Drumming on your instrument.*

A further collection of rhythms with repeated off beats, are shown in Ex.9. There's nothing new here but these repeated off beats from the last lesson often give students difficulties so here's some more practice. Just to remind you we have put in some articulation for you to sing and we've also shown how these rhythms can be co-ordinated with a chord progression to give a melodic continuity, see Ex.10.

Take some time over this exercise it covers all the principles for practice that we have suggested. It is a 4 bar continuity with no rhythmic repeats with a chord change every bar. Thus, the most difficult combination you have met. Let's repeat the best way to practice this exercise –

- drum out the rhythm and get it STUCK IN YOUR HEAD
- sing the dah's and bah's with EXPRESSIVE JAZZ FEELING
- put the melody to the rhythm on your instrument, listening to the sound for good intonation and chord changes

The conventional way to notate some of the rhythms in these lessons is for the middle of the bar to be identified by a space, with tied notes shown if necessary. However, we suggest that you do not worry about 'correct' notation because this course is only concerned with the SOUNDS of the rhythms. In any case jazz rhythms can never be 'correctly' notated because jazz swing depends on MINUTE VARIATIONS IN TIMING which defy conventional notation.

Remember musical notation has been developed for the classical tradition where the purpose is accurate reproduction of the composers musical ideas within a convention. Jazz has no corresponding means of written communication and relies on spontaneous 'composition' within a completely different tradition which must be HEARD and IMITATED.

Generally music studies are strongly influenced by the classical tradition, the rhythmic aspect tends to get far less attention than melody and harmony, even to the extent that it is taken for granted. However we believe it is a fundamental driving force of all music and certainly the distinguishing feature of jazz. Listening to the sound of the bar patterns always reveals the rhythmic tendency which IDENTIFIES THE STYLE OF THE MUSIC.

Consider the process of improvising jazz. We may have scales and arpeggios at our finger tips and we may be fully aware of the chord sequence to be performed, but if we do not have rhythmic patterns foremost in our consciousness, or sub consciousness, if you like, the result will not be satisfactory. It will not SOUND like jazz. The patterns we have been studying in this course are typical of the syncopated rhythms of jazz, but they have to be PLAYED IN THE JAZZ IDIOM. We repeat, looking at the notation won't help you much, jazz has to be HEARD and IMITATED.

In these lessons we have always suggested that rhythm receives at least as much, and hopefully MORE attention than the other aspects of music. In jazz the WHEN is more important than the WHAT. We will return to this theme again and again. Look out for further comments on INTERPRETATION in lesson 9.6.

In the last lesson we looked at rhythm as a pattern of sound which has a CONTINUITY. The coherence of the continuity will be enhanced as we develop rhythmic 'feel'. What we have to do, in fact, is to DRUM out our scales, arpeggios and other melodic elements on our instruments. In order to drum, a drummer must have preconceived, or pre absorbed rhythms in his 'blood'. Similarly the improviser of jazz must have consciously absorbed rhythms ready for subconscious projection. The rhythmic exercises in this course are designed to give you practice and provide patterns which will eventually be available for subconscious projection. However, always remember that we can only present the exercises in formal written notation.

All the accomplished jazz instrumentalists DRUM ON THEIR instruments, just listen to them, the melody and harmony are secondary! Consciously try to DRUM OUT your melodies.

We mentioned above, drummers and their rhythms, but we should be clear that the role of the drummer in the jazz band involves more than laying down rhythmic patterns. The drums have a specific part to play, see the last lesson 5.6, and later in lesson 10.

## **6.5 Work Programme**                      *Ingraining sounds & habits.*

The most fundamental message of this course is that hard work is needed to ingrain habits so that they can be subconsciously reproduced during performance.

We suggest that very few people will put in the hard work necessary unless they are ENJOYING themselves. Now we have to be very frank; IT DOES NOT MATTER what material is practised as long as it is jazz. We mentioned in lesson 4.3 that chords and scales can be boring and the target is to enjoy yourself. We can add that the course exercises should be seen as examples of relevant material but they are NOT EXCLUSIVELY RELEVANT. Most of you will be happier practising real jazz from your repertoire and, hopefully, playing with others as we discussed in the last lesson 5.6. If so that is what you must do. The only restriction on the material you practice is the IDIOM.

We now want to mention another source of jazz material for practice which is the TRANSCRIBED JAZZ SOLO from records. Transcribing solos has several benefits –

- developing the ear
- helping with sound / finger patterns and 4 bar time feel
- improving understanding of good jazz practice and idiom
- and it is good fun

Here are a few tips on the best way to approach transcription –

- choose songs and solos from good jazz players that are your personal FAVOURITES
- start with SIMPLE material at slower tempos with chord progressions and keys that you know
- tape the record so you can REPEAT the playback easily
- play on your own instrument along with the record to ‘FIND’ the note and rhythms to jot down
- but it is not simply the note pitch and rhythm you need to identify, the accentuation, timbre, dynamics and timing SUBTLETIES are also vital ingredients
- remember you are trying to IMITATE the sound on the record
- when you have finished the transcription ANALYSE the solo noting the incidence of the devices and tricks we have studied in these lessons
- particularly look for the phrasing which gives the solo CONTINUITY and INTEGRITY by asking - why is it good?

Remember the first and last essential for your practice is to enjoy it. Bearing this in mind let’s reiterate a useful work programme –

- regular LISTENING periods, to players of your choice
- PRACTICE of jazz material from whatever source
- careful ANALYSIS of what you hear and play
- MEMORISING of melodic patterns, rhythmic patterns, and chord sequences
- TRANSPOSITION of material into other keys
- PHRASE BUILDING through combination, recombination and displacement of material from the course exercises, from written work or from ANYWHERE
- attempts at IMPROVISATION
- study of THEORY and preparation of written work
- TRANSCRIBING and practising jazz solos from records
- make sure all your work is FUN!
- and lastly we want to stress EAR TRAINING, see 6.6 below

Have we forgotten anything?

Remember hard work is needed to INGRAIN the sounds and habits! The objective is that through habit we will instinctively, and eventually subconsciously –

- ‘know’ that ‘THIS SOUND’ comes from ‘THESE FINGER POSITIONS’ and
- ‘feel’ that ‘this’ is the FIRST BEAT OF BAR 5!

## **6.6 Ear training**

### ***Learning to listen.***

Developing your ear to discriminate the sounds you hear in terms of pitch, tonality and idiom must be an important focus of study.

Let us be clear, good jazz requires the development of a good ear for several reasons –

- the subtlety of jazz rhythm cannot be taught, it involves deft placing of sounds within a structure. The only way to achieve this is by LISTENING and IMITATING the sounds of others
- improvisation involves RECOGNISING sounds and instinctively associating those sounds with finger positions on your instrument. The association of sound with finger position implies that we can hear the sound and remember it!
- pitches must be played and ‘corrected’ so they sound ‘in tune’. Listening and

memorising implies it is necessary to have a sense of 'RELATIVE PITCH'. We must know whether a note is right or wrong in relation to other notes played at the same time or in the same song. It is not necessary to know pitches 'absolutely'; this is called 'perfect pitch' and is something few of us will attain, but it is, nevertheless perfectly possible, see below.

To start to develop a sense of relative pitch we suggested in lesson 1.2 that it was a good idea to –

#### ASSOCIATE SOUNDS WITH FAMILIAR PHRASES.

For example some associations might be –

- major scale = DO - RE - MI - FA - SOL - LA - TI - DO
- octave up = SOME - WHERE over the rainbow  
down = HOT – CROSS buns
- semitone up = come and BE - HOLD him born the king of angles  
down = and glory shone A - ROUND
- major 3rd up = WHILE - SHEP herds watched their flocks by night  
down = away in a manger no crib for A -BED
- minor 3rd up = round YON - VIR gin mother and child  
down = sil LENT - NIGHT
- perfect 5th up = god REST - YOU merry gentlemen  
down = let nothing you dis MAY - FOR Jesus Christ our saviour
- perfect 4th up = A - WAY in a manger  
down = good king Wenceslas LOOKED - OUT
- 6th up = I saw three ships COME - SAILING in  
down = MARY (was) THAT mother mild
- flat 5th up = MA - RI a  
down = I can't think of an example ..... can you?
- augmented 5th up = they asked me how I - KNEW my true love was true  
down = not very common??
- flat 7th up = they asked me how I knew my true love WAS - TRUE

..... in this way a repertoire can be built up for memorising and subsequent recall. Develop similar associations of your own choice. They will then be PERSONAL to you and easier to commit to memory.

Playing what you hear it is so essential for the jazz musician that we suggest taking ear training much further!

Once some proficiency is achieved in relative pitch, we recommend that your ear training programme should involve trying to fix the sound in your MEMORY through a type of 'visual' MENTAL IMAGE.

The basic idea is that every note has identifiable characteristics which can be 'VISUALISED', or imagined, as 'PITCH COLOUR'. This simply means that each pitch has a certain 'TONE QUALITY' that distinguishes it from all other pitches. 'Pitch colours' and 'regular' colours are similar in that both are difficult to describe but quite obvious once you see them (or rather 'hear' them). Once you have heard these 'pitch colours' and realise that they REALLY EXIST, it is only a matter of practice before you can memorise the 'pitch colours' of all the different notes.

The 'technical' justification for the existence of 'pitch colours' is instrument specific. Every instrument produces each pitch with a SPECIFIC COMBINATION of string length and string weight, or air column length and 'register' control. These specific combinations produce their

own characteristic sound 'quality', or 'colour', based on the particular overtones produced, which can be recognised. Thus, these minute differences between the tone quality of pitches can lead to a type of discrimination which is initially specific to a particular instrument. This instrument specific sense can then be developed to recognise pitches from other instruments.

It is easier to judge pitches on your own instrument, and it follows that ear training should start with your own familiar instrument and, as proficiency increases, training can then be extended to other instruments.

The best way to practice is through 'dictation' - listening, hearing and then playing notes, melodies, intervals and chords.

Get a colleague who plays the same instrument to play notes at random which you should then try to reproduce on your own instrument.

Your sense of relative pitch will enable you to find the note by sound COMPARISON. But eventually your sense of absolute pitch will enable you to 'finger', or IMAGINE, the note called BEFORE the confirming sound is heard!

If you want to practice on your own use a tape recorder to play back random notes for copying. When you first start, use common notes, say C and D in the middle register, and play back, or call back, the note you hear.

You will obviously find that locating the note by sound comparison is relatively easy but identifying the note by sound alone is much more difficult. If you get the answer wrong repeat the note several times so that you can LISTEN to the 'pitch colour'. This is the most important part of the exercise, listen carefully to the notes and compare them to the sound in your memory, in your imagination. The most important time is the time you spend LISTENING.

Continue with the dictation, getting some right and some wrong, always listening for the 'pitch colour' but never getting too upset if you're not sure you hear it.

When you can consistently get the current set of notes correct expand the range and move on to more notes more widely spaced and less frequently used. Start with a small range, and gradually work up to the full range of your instrument.

After a while, you will get stuck and go much slower, this is normal, JUST KEEP WITH IT. The very high and very low notes are more difficult, and it will take you much longer to master them, Don't worry too much about whether you're hearing the 'pitch colours'. Always listen for them, but when you can get 80% right on a certain level, go on to the next level regardless of hearing 'pitch colours' or not. This is because it is the practice that is important and the 'hearing' of the colours will 'CLICK' sooner or later.

You probably think this is a REMARKABLE POSITION for us to adopt. Most people think a good ear, and particularly perfect pitch, is a gift and something you are born with. We honestly believe, and KNOW from experience, that perfect pitch is something that can be attained through practice.

You don't need to practice too long each day, but you should try to practice every day. Fifteen minutes a day is an ample amount at first; later on you can practice as much as a half hour a day if you want to, but certainly no more!

Once you have mastered the full range of your own instrument, try different instruments, we suggest that you continue with an instrument that is quite similar to your own, and then work out to more exotic ones. When you first start working on a different instrument, you may find that you have to restrict the range again, and then gradually work out to the full range.

OK here's the summary aid –

- always LISTEN. We all 'hear' notes but as students of improvisation we must ACTIVELY listen to the sound
- always try to commit the sound to MEMORY by thinking about the associated IMAGE, or 'pitch colour'. This is the only way we know of to help memorise sound
- apart from the specific 'dictation' exercises, listening and memorising applies to records, live performances and above all it applies to your own playing. Every time

you play a melody critically analyse it, is it RIGHT in terms of tonality or does it sound out of tune? Does it sound like jazz or is it like straight music or an exercise?

- remember another excellent method for developing the ear and sound / finger relationships is to TRANSCRIBE solos from records. See above 6.5.
- PRACTICE - hear a note then try to imagine it then play it, invent some 'hear' / 'play' games ..... the possibilities are endless.

Another long section but remember ear training is another example of a skill which cannot possibly be taught but it can be learned. Success requires hard work on your part.

### **6.7 Written Work.**

Construct a 16 bar continuity on the following specification –

Harmony –

This can be freely chosen, with the following limitations. Use one chord per bar. The first 8 should end on the DOMINANT, and the second 8 should end on the TONIC.

Rhythm –

16 bars with rhythms chosen from the lessons up to now, or more elaborate if desired.

Melody –

This should include all the idioms studied to date, with plenty of the techniques of lessons 3 and 4.

Key –

C major.

NB. We have now completed six exhausting lessons which have developed the basics of improvising over relatively simple chord sequences. Remember we set no time limit for these lessons, some of you may take 6 months others 6 years. The time is irrelevant, the doing is essential if you want to play jazz! We now move onto a consolidation and summary in lesson 7.

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