

LESSON 1.
THE CONCEPT OF TONALITY & THE SOUND OF THE 'HOME BASE'.

This course is not instrument specific so we are assuming that you know, for your chosen instrument, both the sound production technique and the fingerings for the notes on the treble clef.

We shall begin as we intend to continue by studying SOUNDS.

1.1 Tonality. ***The Major Scale.***

The smallest formal INTERVAL in Western music is a SEMITONE, and the succession of semitones between any note and its OCTAVE is a CHROMATIC SCALE. The chromatic scale divides the octave into 12 EQUAL SEMITONES. See Example 1. Play this over on your instrument and listen to the sound. This scale contains ALL the notes in the octave; there are no other notes in the sound system that we will be studying. The octave note is repeated as a 13th note to 'complete' the sound.

Inspection of this scale reveals that the interval between E & F and B & C is only a semitone, but all the other consecutive letter intervals are a full tone apart with the intervening semitones being produced by introducing a sharp or a flat. Note that the pairings C# & Db, D# & Eb, F# & Gb, G# & Ab, and A# & Bb have identical sounds and fingerings.

The PIANO KEYBOARD is an invaluable way of visualising these relationships; the black notes on the piano are the sharps and flats and the E & F and the B & C are the only consecutive white notes. Throughout this course the keyboard will be an almost essential aid for generating the sounds we will be discussing, particularly the multi-note sounds. So if you are a single note instrumentalist try to find a piano or a small electronic keyboard so that you can hear the sounds. Small electronic keyboards are very cheap and readily available.

When we listen to music we are usually aware when it sounds 'out of tune' or unpleasant. Our mind has been CONDITIONED over the years to this sense of KEY or TONALITY by frequently hearing the sound of the MAJOR SCALE, and by the CHORDS that can be built from it.

First let's look at the major scale and then we will look at the associated chords in 1.3.

A scale is produced when notes are sounded in their alphabetical order. The C to C 'white note' scale on the piano is C major -- C,D,E,F,G,A,B,C. See Ex.2.

The major scale is by far the most important scale for the jazzman to master. Analysis shows that it can be split into 2 parts each with the same construction. The smaller part is described as a TETRACHORD --

Tone	Tone	Semitone		Tone	Tone	Semitone	
C	D	E	F	G	A	B	C
-	TETRACHORD	-	LINK TONE	-	TETRACHORD	-	

The 2 tetrachords combine to produce the scale of C major as in Ex.2. The sound will be very familiar, it is the starting point for all modern Western music, it is the –

DO RE MI FA SOL LA TI DO

that all children sing.

A major scale can start on any of the 12 notes in the octave and contains 7 notes and a repeated octave. Thus, there are 12 major scales and the others are shown in Ex.3. Remember that Gb & F# have an identical sound and fingering. Note that all the major scales apart from C must contain black notes, i.e. sharps or flats, if the CHARACTERISTIC SOUND is to be maintained. The tetrachord analysis should make it clear why these sharps or flats must be introduced but you should play carefully all the scales starting on any note and HEAR that the characteristic sound only emerges by playing the sharps and flats. Your ear should tell you, the analysis is a confirmatory explanation.

White note scales, without sharps or flats, starting on notes other than C are called MODES and because they have the semitone steps in DIFFERENT PLACES their characteristic sound is different. These modes all have Greek names and were used extensively in early period music to create a variety of different 'moods'. The major scale is just one of these modes, the 'Ionian' mode. The only other mode of any interest to us in this course is the minor scale, or 'Aeolian' mode. The characteristic sound of this scale can be heard by playing the white note scale A to A. See Ex.4. In its modern usage this scale has been modified by sharpening the leading note to create a familiar semitone step to the tonic, furthermore, in its 'melodic' form, when ascending, the 6th is also sharpened to avoid an awkward one and a half tone step. See Ex.5. for interest. But don't worry about these historical developments, the important point is that they are simply part of a search for PLEASING and INTERESTING SOUNDS and the sound we wish to focus on is the sound of the major scale.

The major scale should be learnt in several ways; you should --

- be able to play it on your instrument and TRANSPOSE it to any starting note as in Ex.3.
- become familiar with the SOUND of the scale
- understand the scale from an intellectual point of view, which means that you should KNOW the actual notes which go to make up any of the scales and the particular degree of the scale which the note occupies.
For example - the note C is the first note of the C scale, the second note of the Bb scale and the third note of the Ab scale, and so on.

Each note of the scale has a generic name. See Ex.6. The scale notes are also often distinguished by ROMAN NUMERALS – I II III IV V VI VII I.

At this stage use the piano keyboard in addition to your own instrument, it is by far the best way to see and learn the relationships between notes and scales. It is even more useful when studying notes and chords which we come to next –

FIND A KEYBOARD & PLAY THE SCALES!

1.2 Harmony

Thirds & chords.

The major scale is, perhaps the most familiar sound in Western music but another agreeable sound is two notes, played together which are a THIRD apart. The sound is interestingly pleasant, it is not one of those dissonant 'grating' sounds.

Thirds are very important because the harmonic structures we will be studying are CHORDS which are constructed by adding thirds on to a ROOT, or base note.

Any two notes which are 4 semitones apart produce a MAJOR third, and any two notes 3 semitones apart produce a MINOR third.

Ex.7. shows the major third, C to E, and then the complete set.

Ex.8. shows a minor third, C to Eb, and then the complete set.

For all the examples in these lessons we recommend that you –

- play the notes on your instrument, in the case of single note instruments they will obviously have to be played sequentially
- listen to the sound
- try to start memorising the fingerings and the sounds.

We don't expect you to memorise all of these intervals at this stage. However, thirds are met frequently during improvisation so you should start to learn the fingerings for thirds up and down from any starting note.

Try to RECOGNISE and REMEMBER the sound of these major and minor thirds, they are quite distinct. Whatever note you start on the characteristic sounds of all the major thirds are the same, and the sounds of all the minor thirds are the same.

Recognising, remembering and playing all the sounds that we discuss in this course will be helped enormously if you can SING the notes. However 'bad' your voice is try and get into the

habit of singing the sounds. Singing will 'test' your memory and recognition but, the most important point is that when you eventually start to improvise you will be –

SINGING ON YOUR INSTRUMENT THE SOUNDS THAT YOU HEAR IN YOUR HEAD !

The sound of the major scale is, perhaps the easiest sound for most of you to recognise and sing but your next target should be the recognition and singing of thirds.

It is important for the improviser to learn and memorise thirds because you will be thinking and playing chord notes much more often than the major scale.

If we start with a major third and add a minor third above it, we produce a MAJOR CHORD or a major triad. The chord takes its name from the note on which it is built, therefore the chord in Ex.9. shows the C major chord. The word 'major' is omitted in the CHORD SYMBOL SYSTEM we will be using, so the symbol in this case is simply C.

The sound of the major chord will probably be familiar to you; it is the ubiquitous sound of the 'bugle call'. It is a 'harmonious' sound, in addition to the pleasant sound of the third it includes the octave and its FIFTH which is very agreeable to the ear.

For all the chords you meet in this course you should know the –

- notes that make up the chord, and be able to 'SPELL' the chord on your instrument
- sound of the notes, so you can recognise the chord aurally and sing it
- chord symbol, so you can communicate with your fellow musicians

If we start with a minor third and add a major third above it we produce a MINOR CHORD or minor triad. See Ex.10. The chord symbol is Cm; the small 'm' indicating minor. The minor chords will be covered fully in Lesson 2.

The minor chord has a DIFFERENT SOUND; it is often described in terms of emotion as 'sad'. You should start to try and visualise (or emotionalise) these sounds for yourself. The image you use will be specific to you, but 'imagery' is very useful to embed the sound in your memory for future recall.

Thus, we have an important principle –

TO HELP RECOGNITION & MEMORY, AN IMAGE SHOULD BE ASSOCIATED IN YOUR MIND WITH THE CHARACTERISTIC SOUND THAT YOU HEAR.

If 'bugle calls' and 'sadness' are not meaningful for you, then think up some ones that are! A trick many people use is to associate sounds with familiar songs. Thus, the major chord is the first 3 notes of the old blues 'Frankie & Johnny'! The minor chord is heard at the start of 'St. James' Infirmary Blues'.

These chord sounds retain their essential characteristics of 'statement' or 'sadness' even though the chords notes do not always appear in their original form. The notes, once defined, can be SPACED out and REARRANGED in any order. This is called VOICING.

Chord notes can also be DOUBLED, or be present more than once in the structure. Any chord can have 3 CLOSE position spacings –

Example on C – 1st position C E G 2nd position E G C 3rd position G C E.

The simplest method of doubling is to repeat the bottom note at the top of the chord --

Example on C – C E G C
E G C E
G C E G

Ex.11. shows all the major chords in the 3 close positions with a doubled note.

Chord voicings and voice 'leading' become important when constructing a SMOOTH progression from one chord to another. See 1.5 below.

The way notes of a chord are spaced out across the octaves, or between the hands on a piano, adds COLOUR, VARIETY and STYLE to the sound. In fact, during performance, the closely bunched notes illustrated here are invariably freed from the tight bundle and allowed to spread themselves into more interestingly spaced chords. This is one of the ways 'mechanically correct'

sounds are turned into exciting music! More of this later. But remember, wherever the notes are positioned, the characteristic SOUND of the chord remains the same because the SAME NOTES are played although they are in different positions in the octaves.

In these first 11 examples we have covered ALL the notes, ALL the major scales, ALL the major thirds, ALL the minor thirds and ALL the major chords and their inversions, a massive amount of material. We can hardly expect you to become familiar with all of this easily or quickly but at least you now know there is a finite amount to learn!

1.3 Chord Progressions *The essence of 'tonal' music.*

We all have difficulty recognising or understanding anything unless it can be related to some sort of reference or standard. Our sense of KEY or TONALITY starts with the 'standard' of the major scale discussed above, but it develops with the sounds of the chords that can be built on it.

Our musical sense does not wander indiscriminately over the scale and we soon begin to realise that chords 'seem' to group themselves in relation to the chord on the first degree of the scale. The major chord on the tonic, is 'felt' to be the CENTRE or NUCLEUS of the sound around which the other chords fluctuate. Our sense of key or tonality establishes this sound centre which we recognise as a 'HOME BASE'.

Music is also DYNAMIC and in addition to this sense of 'home base' we also have a sense of MOVEMENT. In the system of harmony we shall be studying, there is a TENDENCY of a chord, to be attracted towards another chord which is a 4th HIGHER (or a 5th LOWER, which is the same sound!).

This natural feeling of attraction can be heard (or felt), in many familiar sounds - old folk songs or the chiming of church bells, for example. But perhaps the first time we heard this sound was when mothers call their children?

Play the notes in Ex.12. to the familiar 'where are you?', 'I'm here!' exchange.

The relationship between these sounds a 4th apart is usually described in terms of the dominant tonic attraction. The tonic to dominant statement in Ex.12. urges a dominant to tonic reply.

Listen to Big Ben in Ex.13. The sound oscillates between tonic and dominant before homing in on the tonic, the sound of 'home base'.

Ex.14. is the old song 'Skip My Lou' which contains the ubiquitous dominant tonic movement.

This 'magnetic' attraction of moving up a fourth is more emphatic when chords are played on the notes concerned.

Thus, the major chord on G of the scale of C (the DOMINANT) will tend, to want, to move to the C chord (the TONIC). The C chord itself will 'be inclined' to go to the F chord. These two mechanisms can be used to produce two harmonic cells or CHORD SEQUENCES, which SOUND 'RIGHT' –

Symbol	C	F	C	C	G	C
Scale	I	IV	I	I	V	I
Degree	Tonic	S/dom	Tonic	Tonic	Dom	Tonic

See Ex.15.

We can use these tonal cells, harmonic boxes, or chord sequences, to develop many extensions and variations which will still sound OK, for example –

C	G	C	F	C	&	C	F	G	C (Centre C omitted)
I	V	I	IV	I		I	IV	V	I

See Ex.16.

From these simple progressions a vast quantity of music has been written and will continue to be written, because they represent --

THE GERM FROM WHICH ALL WESTERN TONAL MUSIC HAS BEEN DEVELOPED.

These basic sequences are vitally important for improvisers; listen to them and try to memorise them; try to 'feel' how they go! These chords on the tonic, dominant and subdominant form the foundation for countless songs, hymns and tunes of all sorts and sizes.

When the progression C - F - C - G - C is co-ordinated with a particular 12 bar rhythmic pattern we get the 12 BAR BLUES –

Chord	C	F	C	G	C
Bars	4	2	2	2	2

See Ex.17.

If played as written here this progression DOESN'T SOUND LIKE JAZZ; this is because --

- chord voicing are all 1st close positions and not spaced out or rearranged to add spice and VARIETY as discussed above in 1.3.
- chord inversions or doubled notes are not used to get a SMOOTHER flow. See below 1.5.
- idiomatic RHYTHM is absent, see below 1.4.
- there are no LEADING 7th chords, see lesson 4.

Nevertheless it is important to start to get a good feel for the sound of these four important chord changes as soon as possible; the jazz interpretation will come later.

Whatever instrument you play you must find a piano or guitar and play these chord progressions. Try to hear and feel the natural tendency of the C chord to move to F and the G chord to move to C. The sound of this change is vital for the improviser to assimilate; as we have said, it is the germ from which all music has grown.

The chord progressions above should be transposed into several selected keys. Start with some easy keys but listen to how the sound moves in the same way regardless of the designated key.

We have now outlined the principle which is responsible for ALL harmonic development –

- ESTABLISH THE SOUND CENTRE
- MOVE AWAY FROM THE CENTRE
- RESOLVE BACK TO THE CENTRE

and we will see as the course continues that this principle is constantly being extended, developed and applied in an endless variety of ways but the same germ always remains.

1.4 Melody *The jazz 'sound' & idiom.*

All musical styles have characteristic identifying sounds.

The jazz sound is consistent with the Western concept of tonality but with some important developments which we will discuss when we come to the blues in Lesson 9. However, within that tonality the main distinguishing characteristic of jazz is its rhythm, remember –

THE JAZZ SOUND IS RHYTHM !!

We will be discussing this at length throughout the course and we start to discuss rhythm specifically in 1.6 below. However, the jazzman plays melody and it is the rhythm of the melody line that gives jazz its distinctive sound.

The first purpose of the melody exercises in this section is to familiarise you with the individual and collective SOUND of notes from the chords studied in this lesson.

Ex.18 to 21 are examples of melodic work 'co-ordinated' with chord progressions.

Play the exercises over on your instrument. You should also try singing them to 'La' or any other form of articulation.

Remember that SINGING, however badly, is a great way to get the 'feel' of music. When singing you can really concentrate on the sound and rhythm because you are not preoccupied with the 'technicalities' of your instrument. Notice, by the way, how these exercises are full of thirds!

The second purpose of these exercises is to introduce you to JAZZ RHYTHM. Right from the start the melodic material in these lessons is presented in the jazz idiom.

Inevitably this means that rhythm will dominate and SYNCOPATION and off beat timings will be the rule. This makes the written notes more complicated and you may find that sight reading these exercises is difficult, but remember we are only interested in the SOUND. Stick with the exercises to get the rhythm right, remember they are designed as AURAL examples NOT TO TEST YOUR SIGHT READING ABILITY!

We don't start to cover these syncopated rhythms in detail until lesson 3, so you may need to get some help to get: the 'feel' of them. Get an experienced jazzman to play the sounds and TAP the out rhythms first before you attempt to put the melody to the rhythm. Above all try and make the exercises SOUND LIKE JAZZ. Once you are familiar with the fingerings, play the 4 bar exercises from memory and try to accent and interpret them so they sound like bits from your favourite records.

No doubt to start with you will be mentally counting the beats as you read the exercises and as your counting foot hits the floor. It may help if you analyse the exercises first indicating which notes fall on the 'downbeat' as your foot hits the floor and which occur on the off beat as your foot is in the air. Mark the downbeats with arrows in these exercises and see how few of the notes start as your foot hits the floor!

Start listening for the way the sound changes as the chord changes. You may not be sensitive to the change of sound initially but, nevertheless, you must get into the habit of LISTENING to the notes you play.

When you listen to jazz bands or records these are the types of rhythms you will hear all the time. Because the jazz sound is idiomatic it is very important to concentrate when you listen to jazz and try to memorise and 'feel' the sounds you hear This is particularly true for those of you who enjoy classical music or have been classically trained. The rhythmic 'feel' of jazz is QUITE DIFFERENT.

We should stress at this early stage that the exercises in this course should be treated as ADDITIONAL material for study, they are intended to illustrate specific parts of the THEORY we are presenting. However, we recommend that your PRIORITY should be playing JAZZ SONGS and making them sound like jazz. Trying to play jazz is far more important than playing scales, chords or exercise and it is much more FUN.

1.5 Co-ordination.

Sound & smooth chord motion.

The chord sounds and the jazz rhythms have to be co-ordinated into a COHERENT WHOLE. When the song progression changes from chord to chord the motion should be SMOOTH and LOGICAL. Haphazard jumping about should be avoided until such times as you know why you are doing it.

A form of VOICE LEADING between each set of chords has been established by experience which produces the smoothest and most logical connection, and therefore, which sounds 'right' and best –

- when chord I (C chord in the key of C) moves to IV (F in the key of C) the smoothest motions are - the C in the C chord remains in the same voice while the E and G move up to F & A. This is reversed when the F chord moves to the C chord
- when the C chord moves to the G chord the smoothest motion occurs when the G remains while the E and the C move down to D & B.

See Ex.22. and note the smoother sound produced here when compared to the earlier progressions in Ex.15.

This leads us to important principles –

- any progression of chords sounds best when a minimum number of notes change as we move from one chord to the next

- for the notes that do change, the voicing, should be such that the change is smooth and does not involve haphazard jumps.

1.6 Rhythm

Patterns & the rhythmic framework.

Rhythm is the key to jazz; rhythm is how we arrange sound in time, rhythm structures time.

The framework within which rhythm is executed is defined by the beat, the bars, the meter, the tempo and the overall bar structure of the song.

BEATS are produced by recurring patterns of sound which result in a feeling of motion. The beat may be explicitly stated as in most popular music but it is present in all music. The musical notes are subdivisions of the beat. Jazz grew and established itself as DANCE music and always has an underlying beat or pulse which co-ordinates the dance movements. It is the beat that we tap our feet to when we listen to jazz. All good jazz is compulsive BODY moving music.

BARS regulate beats in larger repeating units. Bars are delineated by ACCENTS. The first beat of the bar is conventionally a strong beat, the downbeat.

METER defines this regular accentuation in terms of the number and duration of the beats per bar; the TIME SIGNATURE. Meter is the grouping of the beats in the bar and must be distinguished from the beat. Almost invariably jazz is played with four beats to the bar. That is with a time signature of 4/4.

TEMPO is the 'speed' of the music, and should also be distinguished from the beat. Medium tempo is around 120 beats per minute.

Just as beats are grouped into bars, bars are grouped into larger musical 'sentences' or PHRASES which are characterised by a musical idea or motif with a definite sense of ending.

The understanding of rhythm is closely connected with these phrases or GROUPS of SOUNDS which are perceived as PATTERNS. Initially the length of the phrases will be conceived in terms of the number of bars they occupy.

These bars groups will receive an exhaustive analysis as the course continues until practically every situation that can possibly occur in 4/4 time has been covered. See Ex.23. for a preliminary set of patterns. These should be tapped out and memorised. Simple as they seem, they are the only ones possible in 4/4 time without the use of eighth notes.

Phrases coalesce to form SECTIONS. Dominating the course will be the construction of 4 bar rhythmic song sections. See the next lesson.

Finally song sections combine to produce MUSICAL FORM. Jazz songs are usually either 8, 12, 16 or 32 bars in length and constructed from 4 bar sections.

In this way the rhythmic framework creates a coherence which defines the overall architecture of the music.

We stress that jazz is essentially a rhythmic music, the melodies and harmonies you will learn will never SOUND like jazz unless you get the rhythm right.

The subtlety of jazz rhythm CANNOT BE TAUGHT DIRECTLY, we can't even notate it properly. But if we accumulate the basic musical and instrumental skills, and if we then LISTEN to experienced jazz players, the jazz rhythm will emerge because –

JAZZ RHYTHM CAN BE IMITATED.

If you stick with this course you will acquire the necessary musical and instrumental skills and you will also understand what to listen for as you develop JAZZ SWING.

Swing emerges from the subtle placement of the notes within the framework –

THE TIMING OF THE NOTES IN RELATION TO THE UNDERLYING BEAT.

We can define swing as the idiomatic rhythmic interpretation of jazz melody.

It is the LILT which is felt as melodic trajectories become BUOYANT, detached and FLOAT away from the ground-beat. No description is adequate but the aural experience is ASTONISHING.

1.7 Written work.

Write out the following progression in the key of Eb major –

Harmony – I IV I V Voice as in Ex.20. and add chord symbols.

Melody – Using the above chord progression write in some melodic material as follows –

Chords I IV I V I

Bars 2 2 1 1 2

Rhythm – The rhythm can be freely chosen.

NB. You will be pleased to know that the remaining lessons are largely extensions and developments of these principles covered here! So study them thoroughly!

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