

The Flamenco Guitar

Lesson 1

by “Flamenco Chuck” Keyser

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Introduction

The purpose of this course is to teach you how to make music; specifically, the music of the flamenco guitar. To accomplish this aim, it is necessary to lay down a firm foundation of basic concepts upon which you can build. After you have mastered a number of techniques and learned examples of the music that are the traditional basis of the art, you can eventually learn to grow on your own initiative, and finally to express your own personality in your music.

We have found in our experience that two basic methods have been in general use in the teaching of the flamenco guitar:

- I. The classical method (that is, learning solos written in traditional music notation. This is unsatisfactory for several reasons:
 - (a) Very little good flamenco has been committed to paper at this time.
 - (b) The classical approach should include an emphasis on sight singing, so that the student develops the capacity to "hear" the music as he reads the sheet music.
 - (c) Learning classical theory involves a great deal of theory not relevant to the flamenco guitar.
 - (d) Most important of all, flamenco is an art of interpretation and improvisation; and the use of set pieces seriously hinders growth in these directions, both technically and conceptually.

- II. The "put your pinky here" method. This is the traditional way it is taught in Spain, but usually very few of the unifying concepts are presented; experience is expected to provide the necessary exposure. The lack of good, inexpensive instruction, complicated by the absence of surrounding ambiente and contact with other artists (so that a sense of rhythm can be developed), makes this a difficult way to learn outside of Spain.

We have employed the positive aspects of each method (in the first case, the existence of a permanent record of the music, for future reference, and in the second the improved development of your ear and musical sense), by providing a thorough foundation of the music theory relevant to the flamenco guitar, and yet avoiding the time consuming process and limitations of written music by employing cipher notation and accompanying tapes.

Since flamenco is essentially an art of improvisation, our main objective is for you to "develop an ear" for the music. What specifically does this mean?

It refers to the development of the capacity to perceive relationships, both harmonically and rhythmically, within the music; but directly as a function of the fingerboard of the guitar itself and the techniques used, without the intermediary of written music. Hence, an important secondary goal is to enable you to use another important source of music - phonograph records and tapes.

Music in general can be seen as having two components; a vertical component that refers to the "high-ness" or "low-ness" of notes and chords (this is the concept of pitch), and a horizontal component that refers to the ordering of music in the passage of time (this is the concept of rhythm). Taken together, these components combine to produce melody.

If we compare composed music with improvised music, we find that in composed music, the composer is free to do as he wishes, but except for leeway in interpretation, the performer is bound by the composer's musical conception. But for improvisation, especially with a group, a unifying concept must exist that unites the group. In jazz, the "understood agreement" within the group is the rhythm and the harmonic sequence of chords in a particular song.

In flamenco, the unifying concept is compas (cyclic rhythm), together with traditional chord sequences and falsetas (musical interludes similar to jazz riffs). We shall develop these concepts thoroughly as the course progresses.

The guitar itself is essentially a percussive instrument, like the piano or the drum; that is, the melodies and effects consist of short units of tone in relation to time, rather than tones drawn out over a long period of time, as are possible with the violin, oboe, or cello. This means that the essence of the guitar (and particularly the flamenco guitar) is rhythmic, rather than melodic; melodic variation plays a subordinate role to the emphasis on rhythmic accentuation.

Therefore, the right hand (which produces rhythm) takes precedence over the left (which produces melody). One of the beginning flamenco guitarist's greatest problems is the failure to emphasize this aspect of performance.

The keeping of the compas is the absolute core of the flamenco guitar; even in the pieces (or toques) without compas, the phrasing and structure of the falsetas are intimately related to the compas structures of the rhythmic flamenco. Hence, to speak of flamenco guitar technique as an abstract concept is an error; it is always necessary to speak of (and practice) technique in relation to rhythm.

The two most important things on which to concentrate in the flamenco guitar are control and strength; the beginning guitarist should practice everything slowly, clearly, and powerfully, rather than attempting to sound like Sabicas or Paco de Lucia in two years. Speed is worthless without control and strength, because without them the music is without dynamics, and hence, expression. This takes time to develop, and patience is particularly rewarded.

Also essential is the development of a musical consciousness that enables the guitarist to perceive each and every note as it is played, no matter what the speed. (You will actually find it more difficult after a time, to play slowly and precisely, rather than fast and sloppy.)

However, a balance must be struck, for flamenco is also an art to be thoroughly enjoyed; an art of participation, wine, palmas, jaleo, dancing, singing, and above all, personal expression. Therefore, we shall present a fairly complete theory of the left hand as early as possible (to get it out of the way), and then concentrate on developing the basic concepts of rhythm.

You are strongly advised to learn each lesson thoroughly before proceeding to the next, as the course builds cumulatively in knowledge. The exercises are designed to relate the theory on paper to the guitar, as well as to develop your ear. We shall correct your work and return it to you as soon as possible, and if you have any questions at all on the course material, please feel perfectly free to ask them.

Welcome into the world of music and flamenco. Entonces,

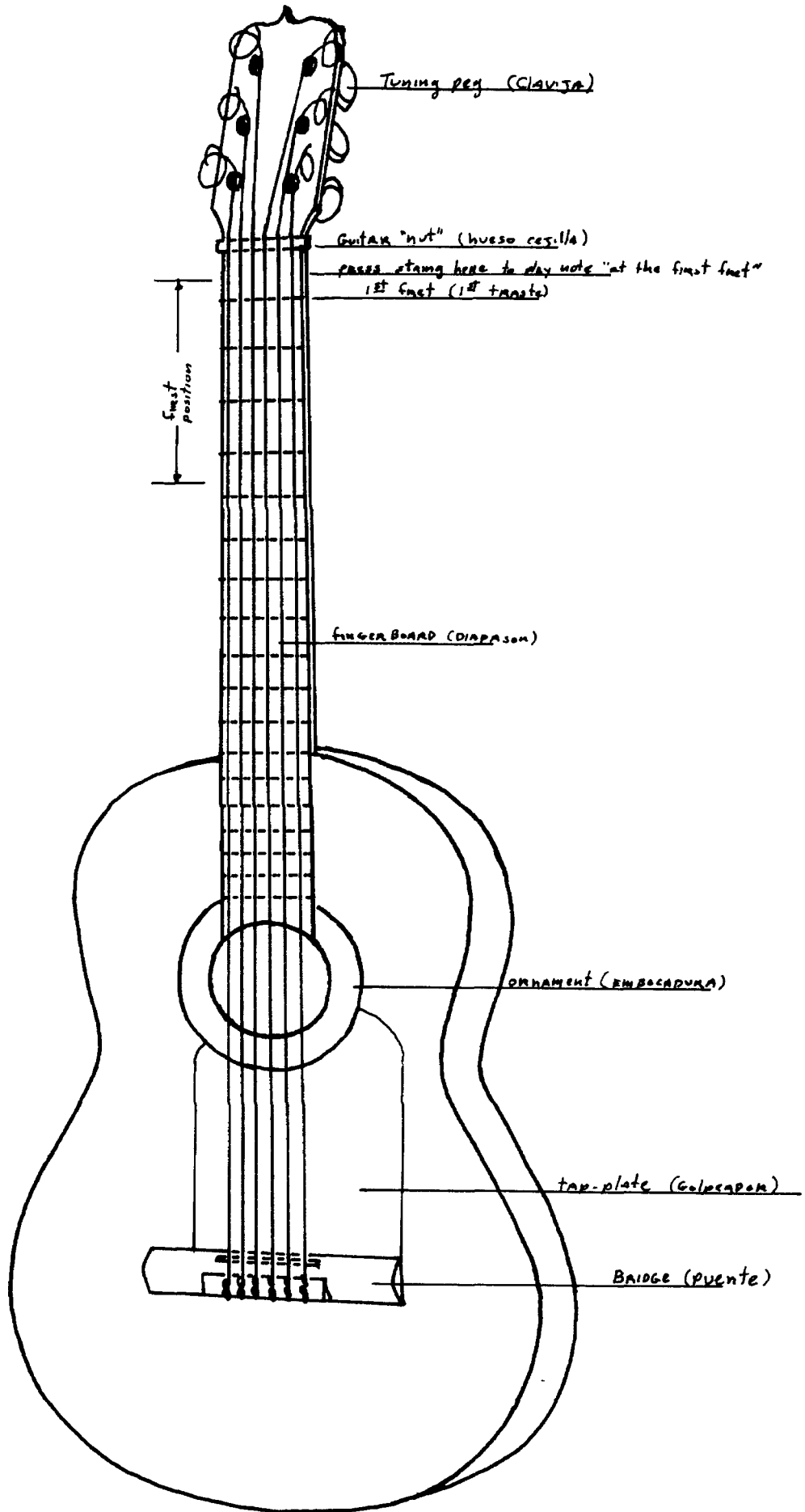
¡Vámanos!

(Now turn to the section of the Script entitled "Tuning the Guitar.")

Outline of Lesson I

- I. Tuning the Guitar
- II. Basic Harmony
 - A. The Concept of Scale
 - 1. Intervals
 - 2. Interval Relationships
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 - 4. Half Steps and Whole Steps
 - B. The Chromatic Scale
 - C. The Major Scale
 - D. The Phrygian Mode
 - E. The Notes of the Guitar Neck
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 - 4. Primary Chords
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- III. Basic Rhythm
 - A. The Concept of Rhythm
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The
FLAMenco
Guitar



II Basic Harmony

You recall that in the introduction we referred to the "high-ness" or "low-ness" of individual notes as pitch. The relationships between the notes and chords of music is called harmony.

The Concept of Scale

The fundamental concept in the harmonic (or "vertical") aspect of music is that of scale, which contains the notes that make up the melodies and chords of a given piece of music.

The scales that we use today were known to the Greeks, who had discovered certain relationships by comparing the sounds produced by lengths of vibrating strings. They found that if the lengths of the strings were in the ratios of small, whole numbers, the resultant sound was pleasing to the ear, or "harmonious"; and if the strings were not in these ratios, the sound was irritating, or "discordant".¹

From their findings, they developed a series of tonal relations that have come to serve as the basis of most of the music of western civilisation, including the flamenco guitar. Hence to understand the flamenco guitar, one must understand these relations.

If we consider two notes of different pitch, we can conceive of the difference in pitch as a "distance", or Interval.

Definition - an Interval is the musical "distance" in pitch between two different notes.

Traditionally, only notes of certain pitches are used in music; e.g., the piano has white keys and black keys of different pitches, but it is not possible on that instrument to play a note whose pitch is between those of two adjacent keys. Hence, intervals are structured in terms of equal units called whole steps and half steps. One of the strings of the guitar is tuned to a particular pitch (A = 440 cycles per second), and the others are tuned relative to that pitch.

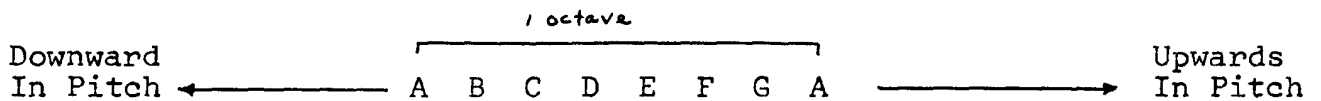
Definition - A scale is a progression of single notes upwards or downwards in pitch, in half-step and whole-step intervals.

(For example, the familiar "Do, Re, Mi, Fa, Sol, La, Ti, Do" that you are probably familiar with.)

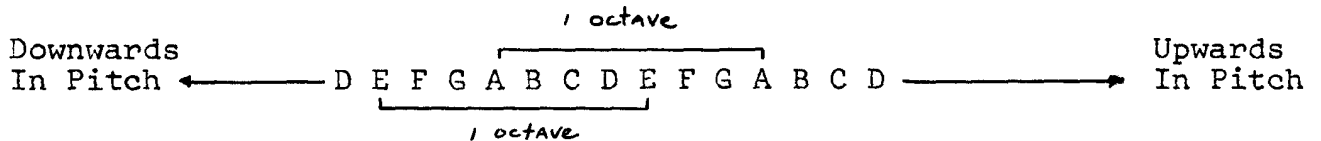
¹These probably came from their methods of tuning their lyres.

The musical character of a particular scale is determined by the interval relationships between the notes in the scale. One of the intrinsic ideas within the concept of scale is the octave. This is a specific interval that is especially important because two notes an octave apart are completely harmonious; i.e., they sound like the "same" note, only of different pitch, when compared with other notes of the scale.²

We assign each note a letter value, and two notes an octave apart will be designated by the same letter. If we begin with the letter A, tradition has it that we designate the "whole tones" (the white keys of the piano) by the letters of the alphabet down to the letter G. The next note is an octave, and hence is A again. Therefore, the "whole tone" scale consists of notes designated by the letters:



Note that there are eight "whole tones" in all, counting both A's; hence the term "octave". Of course, we continue our progression upwards or downwards in pitch:

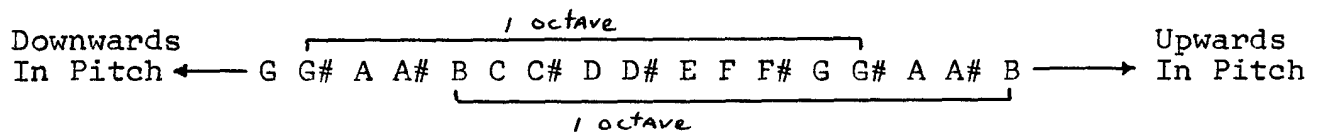


An octave can begin on any note; the last note in the series must have the same letter as the first note.

The octave is broken down into the equal intervals we mentioned earlier; i.e., half-steps and whole-steps. Hence, we can define the most fundamental scale of all, the chromatic scale:

Definition - The chromatic scale consists of all the tones in the octave; descending or ascending in half-step intervals.

If we write all the notes of the chromatic scale from A to A, we have:



²This corresponds to the difference in pitch produced by two strings, one twice as long as the other.

Note that between the "whole tones" there are notes designated by a "#" sign. This is called a "sharp", and indicates a note higher in pitch, by a half-step, than the note designated by the letter alone.

Note that there is no sharp between the whole tones E and F, or between B and C.

(A "flat" sign, "b", would indicate a note lowered in pitch by a half-step; the chromatic scale would be written:

1 octave

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

However, this notation is used for the convenience of writing music in conventional notation, and since we will be using tablature, or cipher, we can speak only in terms of sharps. A D# and an E \flat stand for the same note.

Since the guitar is a chromatic instrument, the chromatic scale contains all the notes it is possible to make on the guitar. These notes are in half-step intervals, i.e.,

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

 $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$

Two half-steps make a whole step; i.e.,

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

| | |

(Note that the whole tones all have a whole step between them, except for E and F, and B and C.)

An octave consists of an interval of 6 steps, or 12 half-steps. Hence, there are 13 notes in the chromatic scale.

The chromatic scale is the set of building blocks from which all other scales are constructed.

Definition - An interval is the distance between any two notes of the chromatic scale.

The interval between A and C (progressing upwards), consists of 1 1/2 steps; the interval between C and A (progressing upwards), consists of 4 1/2 steps. We use the first note as a referent and count the number of half-steps to the next note.

It is in terms of the step-relations of notes that our theory will be developed; that is, in terms of Interval Relationships.

The Major Scale

If we play the whole tones of the Chromatic Scale, beginning on C and ending on the C an octave higher, we play the notes:

C D E F G A B C

This corresponds to the familiar "Do, Re, Mi, Fa, Sol, La, Ti, Do"; i.e.,

C	D	E	F	G	A	B	C
Do	Re	Mi	Fa	Sol	La	Si	Do

These are the notes of the major scale in the Key of C, and we circle the lowest C as our point of departure, or reference. This is called the tonic note. For the key of C, all other notes in the scale are related to the tonic note C; and the letter designating the key and the tonic note are always the same.

Definition - A key is a classification of the notes of a scale, and the tonic is the note of musical reference in that scale.

The notes of the major scale in the key of C (i.e., the C major scale), are:

Ⓒ D E F G A B C

and we circle the tonic to emphasize that it is the point of reference in the scale.

We now raise the question of what prompted us to pick these particular notes for this particular scale in this particular key. The answer lies in the interval relationships between these notes; i.e.,

Ⓒ C# D D# E F F# G G# A A# B C

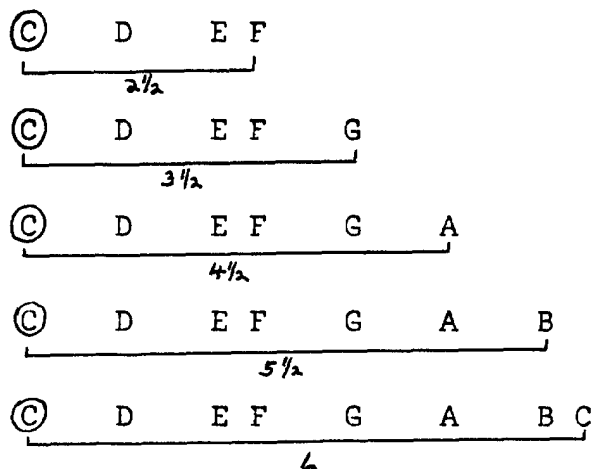
or,

C	D	E	F	G	A	B	C
		1/2				1/2	

i.e.,

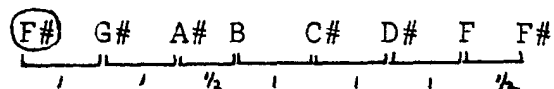
C	D
	1

C	D	E
	2	



Now we could have started with any note in the chromatic scale as the tonic and written the notes of the major scale in that key. (This is called the process of transposition; more will be said about it later.)

For example, the major scale in the key of F# (the F# major scale), is



The key determines the tonic note, which in turn determines the starting point in the chromatic scale. The rest of the notes are determined by their interval relationships to the tonic.

Definition - The major scale is defined by the interval relationship:

1, 1, 1/2, 1, 1, 1, 1/2

(Note that if we play any of the sequences of notes derived in this way, they all will have the "Do, Re, Mi, Fa, Sol, La, Ti, Do" sound.)

Hence, there are 12 possible keys, each corresponding to a note of our chromatic scale, and 12 possible major scales. We choose our key, and this determines the tonic note within the chromatic scale. We can then find the other notes of the major scale in that key by using the "recipe" that defines the major scale.

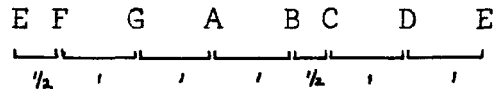
The Phrygian Mode

We have examined the major scale first, because of its familiarity and its central position in the history and experience of western music. Actually, the major scale is one of the Greek modes, which

for all practical purposes can be considered to be different scales; i.e., defined by different interval relationships.³

The flamenco guitar uses three scales; the major scale, the harmonic minor scale, and the Phrygian Mode.

The most important of these scales for the flamenco guitar is the Phrygian Mode, which consists of the interval relation between the whole tones of the scale from E to E; i.e.,

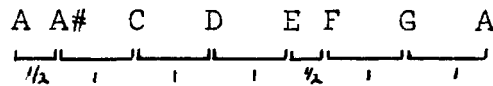


Hence,

Definition - The Phrygian Mode is defined by the interval relationship:

1/2, 1, 1, 1, 1/2 1, 1

This, of course, can be written in any key. For example, the Phrygian Mode in the key of A (the A Phrygian Mode) consists of the notes:



The first flamenco toque we shall consider will be the Soleares, which is played in the E Phrygian Mode. As we progress in the course to other rhythms, we will introduce other scales and keys as they become relevant. We next relate the concept of scale to the fingerboard of the guitar.

The Notes of the Guitar Neck

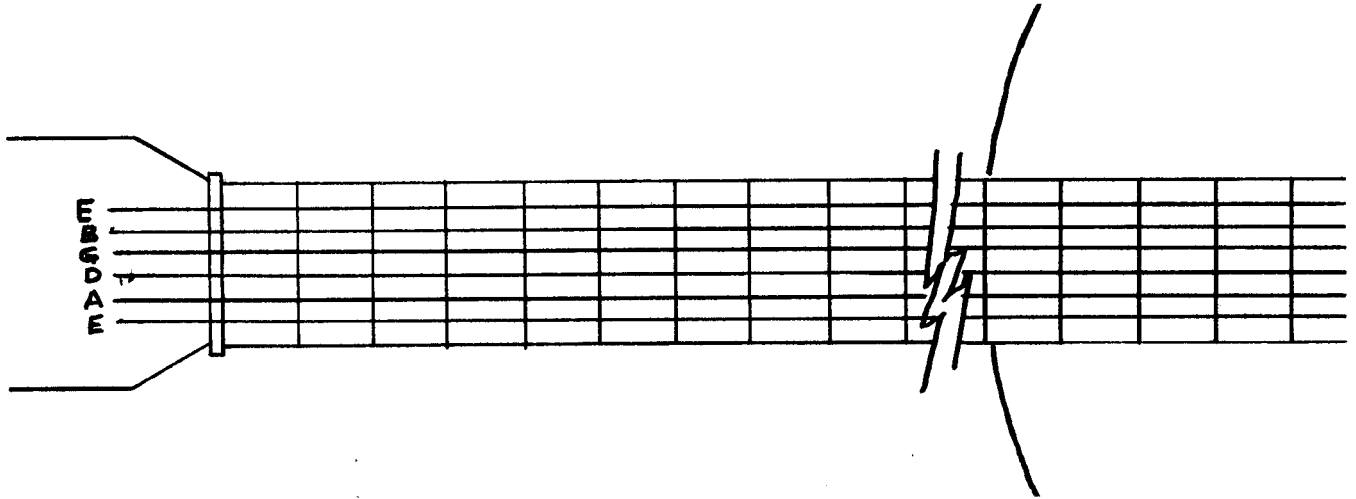
The guitar, harmonically, is basically a chromatic instrument; i.e., the tonal distances between frets are measured in half-steps. We could tune the strings to any of the notes in the chromatic scale; however, tradition has it that the guitar strings are tuned to the notes E, A, D, G, B, and E (progressing upwards harmonically, but

³The modes are derived from the interval relationships gotten by beginning on a whole tone and considering the whole tones in the octave by upward progression. That is, D to D equals Dorian Mode: D E F G A B C D, hence defined by the relation 1,1/2,1,1,1,1/2,1.

You'll see that the major scale corresponds to the Ionian Mode, C to C.

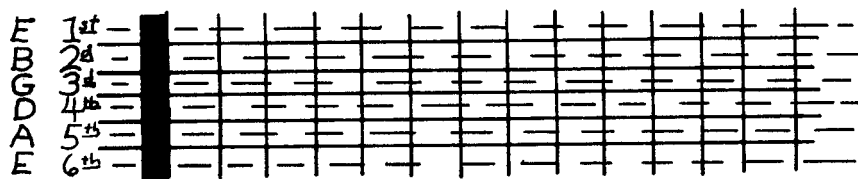
but downwards physically across the neck of the guitar.

If we lay a guitar flat in front of us, with the neck extending to our left, the locations of the strings are:



We now introduce a notation that will enable us to depict a "snapshot" of the notes on the guitar neck, and will apply when we are speaking of their physical relation.

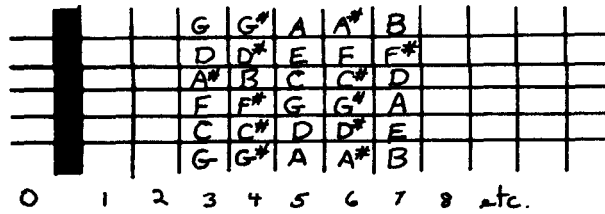
Instead of using 6 lines, each representing a string, we shall use 5 lines, and consider the spaces between the lines as representing guitar strings. I.e.,



This is done for clarity, and to enable us to use the traditional music staff for our notation.

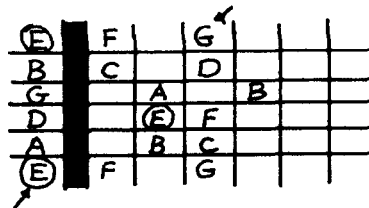
Since the guitar is a chromatic instrument, and the guitar strings are tuned to the notes indicated, the notes of each string progress up the scale and guitar neck chromatically, beginning with the unpressed, or "open" string.

The notes of the third position are:



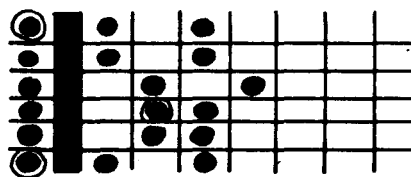
We shall confine our attention for now to the open position of the guitar neck.

Consider the notes of the E Phrygian Mode. If we consider only those notes (i.e., E, F, G, A, B, C) in the open position, we find that they form a pattern. Since we are speaking of the key of E, we circle the E tonics to emphasize their musical and physical position on the neck.



The highest note (in pitch) of the pattern is the G on the first string at the third position; the lowest note is the E on the 6th string, played open. These are indicated by arrows.

We note that the notes form a pattern; if we indicate only the physical positions of the notes (circling the tonics), we have:



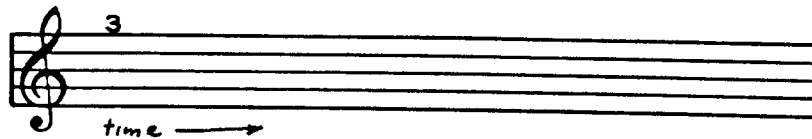
This pattern of the notes of the E Phrygian Mode in the open position is important; you are strongly urged to commit it to memory at the earliest possible time.

Cipher Notation

We now introduce the concept of cipher notation as it relates to the harmonic aspect of music. We shall again use five lines, with the spaces between representing the strings of the guitar. However, the horizontal aspect, instead of representing the guitar neck, now represents time, progressing from left to right.

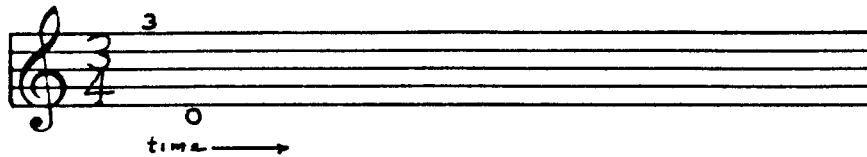
We represent a note as the number of the position at which the string is pressed in order to sound the note. (The figure at left denotes the treble clef; this can be ignored in our discussion, as the alternative, the bass clef, is not used for the guitar.)

Therefore, the high G referred to above would be indicated:



Note that we do not draw a guitar nut, as the notes are represented only by the numbers of their positions; the horizontal represents time in this notation.

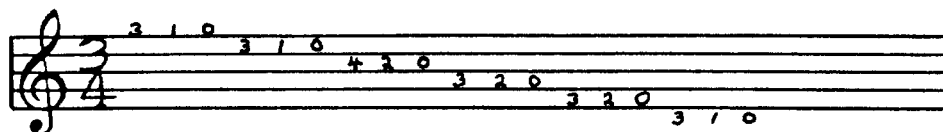
If the two notes indicated above are struck in succession, the G and then the E, we represent this as:



Note that the horizontal position of the) is to the right of the 3, indicating it represents the second of the notes to be struck.

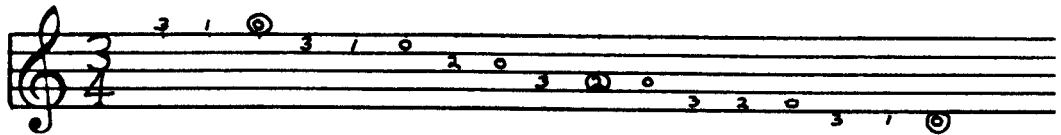
Suppose we play the notes of the E Phrygian Mode in the open position, beginning at the high G, and ending at the low E, in sequence (use your thumb for now),

We then write:

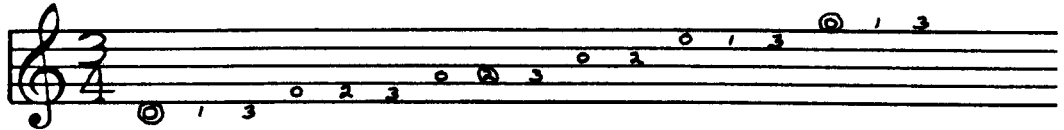


When the note on the 4th fret, 3rd string is played, it is found to have the same pitch as the open 2nd string. Therefore, when practicing scales, one or the other of these notes is played, but not both, as they are musically redundant in the progression.

Leaving out the note at the 4th fret, 3rd string, we play:



If we begin at the E and ascend, we have: 4



Note that we have played all the notes (except the redundant ones), of the E Phrygian Mode pattern, open position. We again urge you to memorize this pattern.

Hint: memorize the locations of the tonics by playing them more strongly than the other notes. We indicate these above by circling their numbers.

For the moment, this concludes our discussion of scales. We now turn to the second important topic of the harmonic aspect of this lesson, that of chords.

Chords

Chords are the musical structures that form the foundation of the rhythmic aspect of flamenco; one can play a good deal of flamenco using chords alone, and they are the musical backbone of the compas. Therefore, we shall examine them thoroughly.

Definition - A chord consists of three or more different notes struck simultaneously.

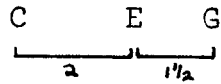
Now, these three notes must be in a certain relation to each other; otherwise they will sound discordant. This is, of course, determined by the interval relationships between the notes of the chords.

⁴The fingering of the left hand is the logical one: for the open position, the index finger controls the first fret, the middle finger the second fret, the ring finger the third fret, and the little finger the fourth. If there is a possibility of confusion, the appropriate fingering will be indicated by small circled numbers:

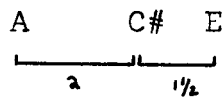
① = index, ② = middle, ③ = ring, ④ = little

Let us examine the C major chord. The notes of the C major chord are C, E, and G. The first note in the sequence is called the root, and has the same significance as the tonic of the scale, in determining the other notes of the chord.

Hence the notes of the C major chord have the interval relationships:



This interval relationship applies to any major chord. For example, the notes of the A major chord are,



Definition - The major chord is defined by the interval relation:

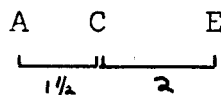
2, 1 1/2

The flamenco guitar uses three kinds of chords: the major chord, the minor chord, and the 7th chord.

Definition - The minor chord is defined by the interval relationship:

1 1/2, 2

Hence, the A minor chord, written Am (the A major chord is written simply A), consists of the notes A, C, and E; their relation is:



Definition - the seventh chord is defined as a 4-note chord consisting of the notes of the major chord plus the 7th note in the octave defined by the root.

2, 1 1/2 + 7th

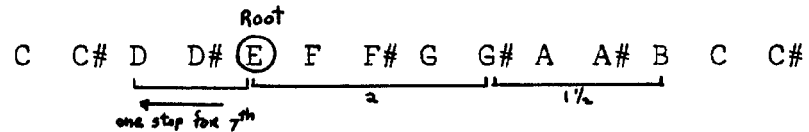
To calculate the 7th, we go backwards in the chromatic scale from the root of the major chord one step.

For example, an E seventh chord (written E7) consists of the notes of the E chord plus an additional D.

That is,

$$E7 = E \quad \underbrace{G\# \quad B}_{\text{a}} \quad + \quad D$$

The D is the 7th, gotten by going backwards from the root one step in the chromatic scale:

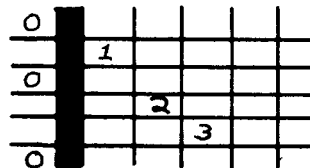


These are, essentially, the only three kinds of chords used in connection with the flamenco guitar.

Let us return to the C major chord again. We wish to relate the theory to the guitar neck.

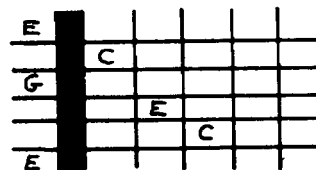
The C chord on the guitar neck is made by sounding those notes which are in the relation just described. These notes determine the physical configuration of the fingers of the left hand, which are held in position on the guitar fingerboard as the chord is being struck.

The "snapshot" of the C chord is:

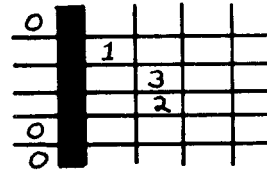
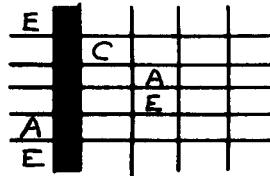


The numbers stand for the fingers of the left hand as described earlier. A "0" to the left of the guitar nut indicates that the string is left open; an "X" indicates that the string is not struck by the right hand.

If we consider the notes that are struck, we have:



Note that all the notes sounded are either C, E, or G. (Their physical ordering on the neck is irrelevant.) If we consider the Am chord, we have:



Note again, that all the notes are those of the Am chord calculated above; i.e., A, C, and E.

Definition - The primary chords are those chords that can be made with 3 fingers or less of the left hand.

Some chords are inconvenient or impossible to make in the open position because of the nature of the tuning of the open strings; for example, a G#m consists of the notes G#, C, and D#. None of these notes occur as open strings (which are E, A, D, G, and B). Hence, to make this chord in the open position, you would have to have seven fingers, including the thumb.

The notes of the chord and the tuning of the guitar determine the physical configuration of the chord on the neck of the guitar.

We now proceed to list the primary chords. We find there are five major chords, three minor chords, and four seventh chords that conveniently satisfy the necessary conditions.

Primary Chords

Major Chords - E, A, D, G, C

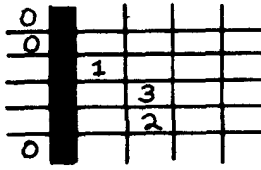
Minor Chords - Em, Am, Dm

7th Chords - E7, A7, G7, D7

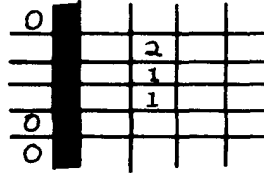
(Note that we do not play the 6th string in the case of the D's.)

The fingerings for the primary chords are:

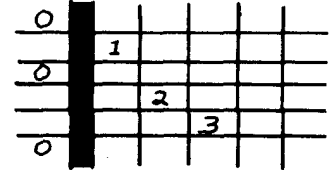
Major Chords



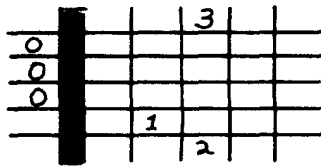
E



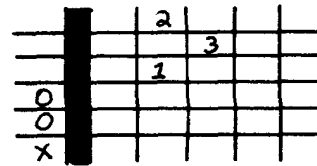
A



C

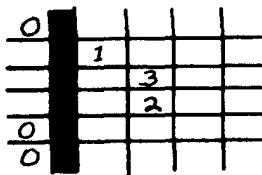


G

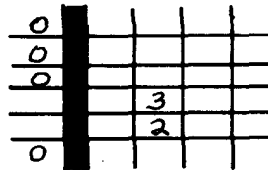


D

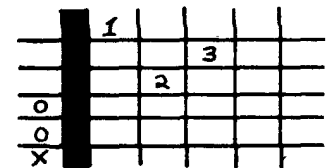
Minor Chords



Am

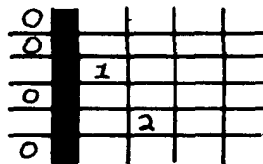


Em

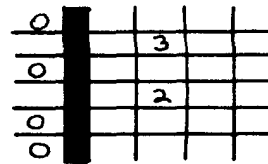


Dm

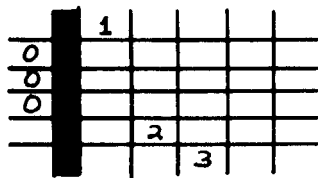
Seventh Chords



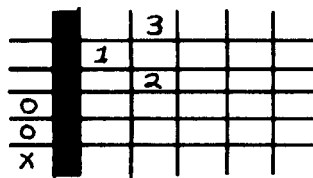
E7



A7

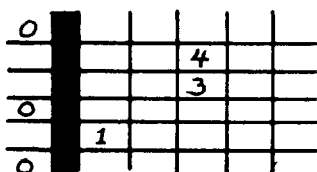


G7

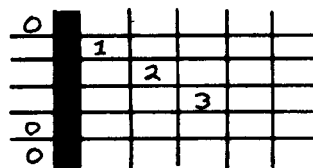


D7

Two important additional chords are:



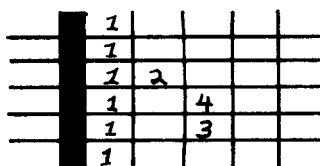
A#



Fmaj7

These chords are not, strictly speaking, major, minor, or seventh chords, but are closely related. We shall be introducing more of these as we progress.

We also recommend that you learn to finger one "bar" chord, at present, the F major chord:



F

The forefinger lies flat, pressing down all the strings at the first fret, the others as indicated. We shall return to this topic in the next lesson.

Cipher Notation for Chords

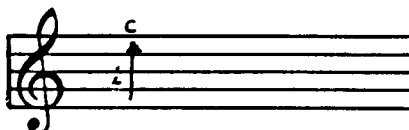
If we strike the notes of a chord downwards, from the 6th string to the 1st string, we denote such a stroke by an arrow pointing upwards on the paper. We indicate the chord by its name

above the arrow, and the fingering of the right hand by the schema:

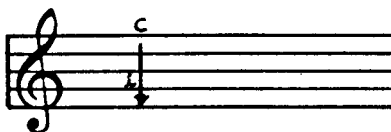
Fingering of the right hand:

- p - thumb (pulgar)
- i - index
- m - middle
- a - ring (annular)

For example, if we strike the notes of a C chord with a downstroke of the index finger, we shall denote it as:

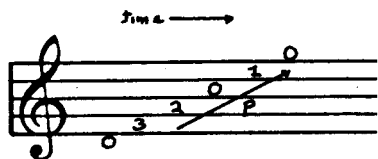


If we use an upstroke, we indicate it by an arrow pointing downwards on the paper:

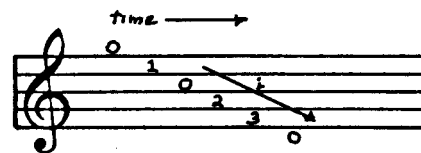


A few trials should convince you of the logic of this notation.

If the finger is drawn slowly over the chord so that the notes are sounded individually, rather than together, we indicate it thus:



Thumb Downstroke
Over the C Chord



Index Upstroke
Over the C Chord

(This is referred to as a broken chord, as it is broken up in time; the concept is closely related to the arpeggio, which we will introduce later in the course. Note that although individual notes are struck, the left hand does not move.)

Occasionally we will indicate the chord:



Chord Progressions

We now introduce the third important topic relating to harmony in this lesson; that of the chord progression.

Definition - A chord progression is a sequence of chords played over a period of time.

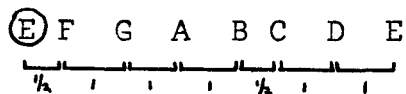
Of course, some chord progressions are going to sound better than others; i.e., some chord progressions are going to be more relevant to a particular key than others.

Consider the Phrygian Mode in the key of E. Together with the set of notes in this key there is associated a set of chords. This set of chords for the key of E (Phrygian Mode), consists of the four chords E, F, G, and Am.

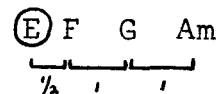
Since we are in the key of E, the E chord in the progression is called the tonic chord, and has the same significance for the progression as the tonic note does for the scale, or the root for the chord. If we play the chord sequence Am→G→F→E, we note that the sequence "sounds flamenco"; and that the music seems to "come to rest" tonally, or to resolve on the E chord. This sequence of chords is sometimes referred to as the "Andalusian Cadence".

The four chords are related by the interval relationships between the tonic chord and the other three; i.e.,

Notes of the
E Phrygian Mode



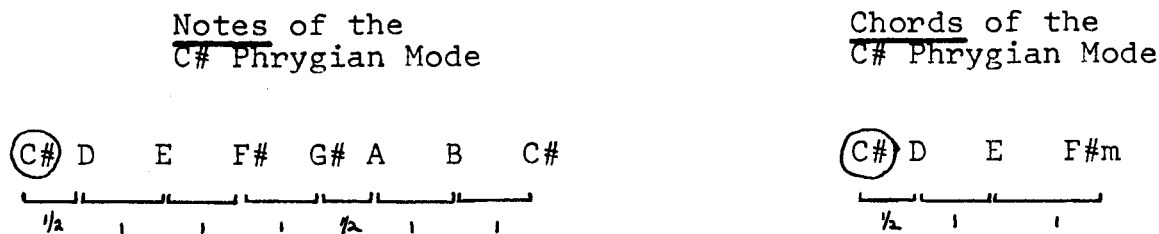
Chords of the
E Phrygian Mode



Note that the fourth chord in the series is a minor chord, while all the rest are major.

Hence, we can calculate the equivalent to the above set of chords associated with any key.

For example, the chords used for the Phrygian Mode in the key of C# are:



Definition - The primary chord progression for the Phrygian Mode consists of a set of chords defined for any key by the interval relation:

$1/2, 1, 1$

The first chord in the set is the tonic chord of the key. The last chord in the set is always minor, where the others are all major. The primary chord progression consists of the above defined set of chords played in the reverse order; i.e., beginning with the minor chord and ending on the tonic.

For example, the primary chord progression for the Phrygian Mode in the key of E consists of the four chords E , F, G, and Am played in the sequence $\text{Am} \rightarrow \text{G} \rightarrow \text{F} \rightarrow \text{E}$.

Of course, there are other chords used with the Phrygian Mode in the key of E. Some of them are C, G7, Dm, F7, Em, and C7.⁵ All of them have an interval distance from the tonic, and their equivalents can be calculated for any other keys. These chords are used to form alternative chord progressions in their respective keys. Chord progressions progress in time as well as tone. This is directly related to the concept of compas, which is based on the even more fundamental idea of rhythm. We now turn to a discussion of this important topic.

⁵ With a few exceptions, these are generally chords whose notes are also in the E Phrygian Mode (e.g., Dm, Em, G7).

Review of Interval Relationships

We have seen that there are three kinds of Interval Relationships used in the music theory relevant to flamenco:

- I. The interval relations used to define scales
 - A. Three types of scales used in flamenco
 1. The Phrygian Mode (the most important)
(a) $(1/2, 1, 1, 1, 1/2, 1, 1)$
 2. The major scale
(a) $(1, 1, 1/2, 1, 1, 1, 1/2)$
 3. The harmonic minor scale
(a) As yet undefined (See Lesson 4)
- II. The interval relations used to define chords
 - A. Three types of chords used in flamenco
 1. The major chord $(2, 1\ 1/2)$
 2. The minor chord $(1\ 1/2, 2)$
 3. The seventh chord (major chord + 7th)
- III. The interval relations used to define chord progressions relevant to a given key and scale
 - A. Associated with each type of scale is a primary chord progression
 1. Phrygian Mode $(1/2, 1, 1)$
 2. Major scale - As yet undefined (See Lesson 3)
 3. Harmonic minor scale - As yet undefined (See Lesson 4)

III Basic Rhythm

The Concept of Rhythm

We have seen that the nature of music does not solely depend on the vertical aspect, i.e., the harmonic, but also on the sequence in time of the various effects; i.e., the "horizontal" aspect of music. We refer to this as rhythm.

Definition - Rhythm refers to the sequential ordering of notes and chords in time.

A well-developed sense of rhythm is absolutely essential in flamenco. It must be developed until it is second nature. A good sense of compas is at the heart of the worthwhile interpretations of the flamenco toques. In order to effectively project rhythm, you must have sure control over your hands and techniques, and it is an exact sense of rhythm coupled with dynamics that puts life into the art of flamenco.

Hence, technique enters very strongly into the ability to keep rhythm, especially the technique of the right hand. The art of flamenco is essentially rhythmic rather than harmonic; one can play excellent flamenco solely in the open position.

We shall begin our discussion with the quarter note.

Basic Rhythm Notation

Often in a piece of classical music, you'll see a notation in the written music such as $\text{♩} = 125$. This notation refers to the fact that the quarter note, written ♩ , stands for a unit of time equal to $1/125$ of a minute; i.e., there are 125 quarter notes in a minute, for this particular piece of music. We take the quarter note to be our basic unit of time.

We can extend or divide the duration of notes in time. We use the following notation:

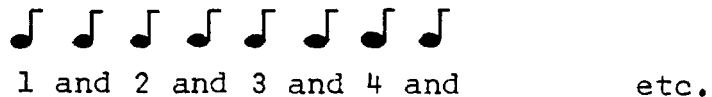
Whole note = \bigcirc = 2 half notes = $\text{♩} \text{♩}$
= 4 quarter notes = $\text{♩} \text{♩} \text{♩} \text{♩}$
= 8 eighth notes = $8 \times \text{♪}$
= 16 sixteenth notes = $16 \times \text{♩}^f$

The guitar is essentially a percussive instrument; i.e., individually struck notes have a relatively short duration. Therefore, we can ignore whole notes and half notes in flamenco, and restrict our notation to quarter notes, eighth notes, and sixteenth notes.

The whole of compas analysis depends on being able to count correctly. We count each quarter note as a beat; i.e.,



Eighth notes are counted:



Sixteenth notes are counted:



Note Groupings

We can group notes in various ways; each group corresponding in time to the length of one quarter note:

Singlets (quarter notes)



Doublets (eighth notes)



Triplets



Quadruplets (sixteenth notes)

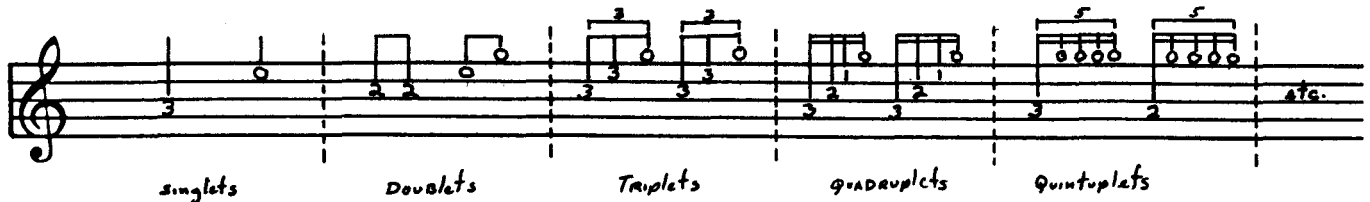


Quintuplets



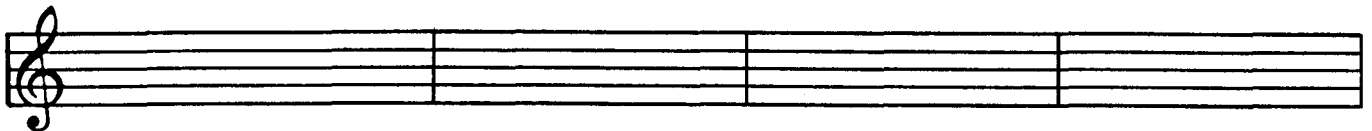
These are the groupings into which we shall analyze all the flamenco techniques. The first note of each group is usually accentuated.

Of course, when we write music, we will be writing in cipher, in which the number of the appropriate fret represents the note. We indicate the value of the note by a stem over or under the number, with the appropriate number of "flags". For example,



Time Signatures

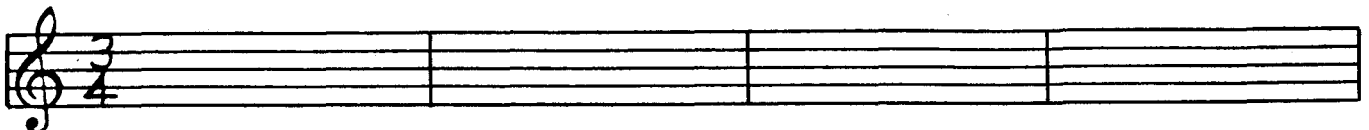
In music notation, the five horizontal lines (called the staff) are divided by vertical lines (called bars).



The space between each of these vertical lines denotes an equal amount of time in the right-ward progress of the music, and is called a measure.

In addition, you will also notice a fraction, such as 2/4, or 6/8 near the left hand margin, just to the right of the treble clef. This denotes the length in time of any one measure and is called the time signature.

Consider the time signature 3/4.



This means that any bar in the following space (to the length of the staff, or until an alternative is indicated) is equal in duration to three quarter notes; i.e.,

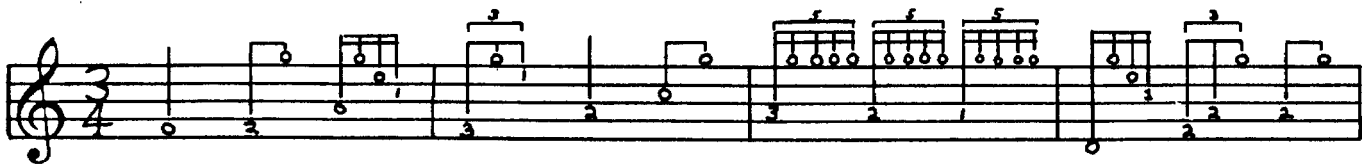
$$3 \times 1/4 = 3/4$$

(If \bullet = 84, for example, the measure is $3/84$ of a minute long.)

Hence, in $3/4$ time signature, one can write:



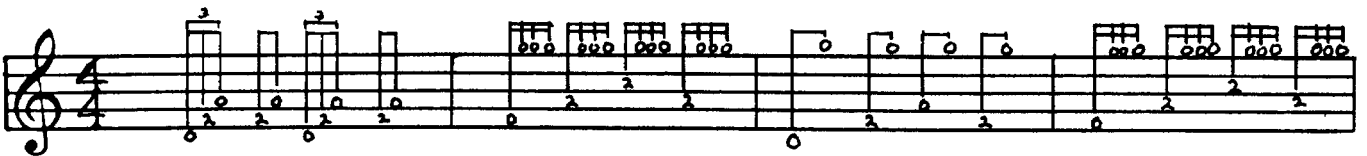
Of course, a $3/4$ measure can be broken up in terms of any of our note groupings; e.g.,



Similarly, a time signature of $4/4$ means that each measure is four quarter notes long:



Or, alternatively:



A time signature of $6/8$ designates 6 eighth notes in a measure:



Now, you might raise the issue of why we do not "reduce fractions" in the case of the 6/8 signature, since the latter denotes an interval of time equivalent to a 3/4 signature.

The reason we do not lies in the convenience of expressing certain kinds of phrasing. Consider the following case. Suppose we wish to accentuate six eighth notes in the following way:



(The "hats" indicate accentuation.) This could be represented in doublets in 3/4 time as:

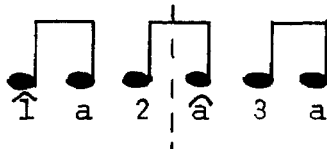


and the accentuation could be expressed easily in this time signature.

But - suppose we wanted to accentuate the music in the following way:



If we tried to express this in doublets, we would have to write:

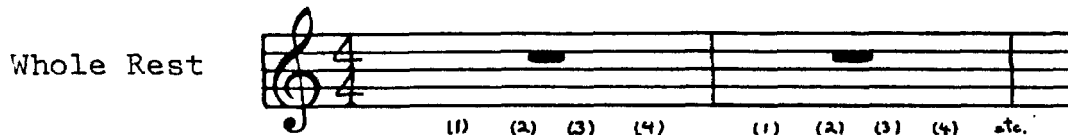


A somewhat awkward situation.

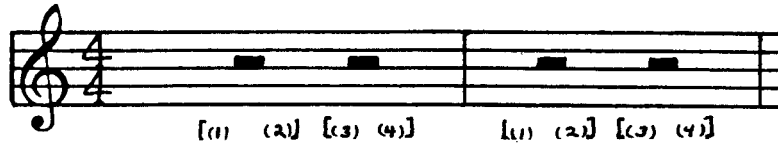
Hence, it is more logical to indicate the phrasing in terms of six eighth notes. (We note that the 3 note phrase in the above example is not a triplet, since it is the equivalent of 1 1/2 quarter notes in duration. A triplet is one quarter note in duration.)

Rests

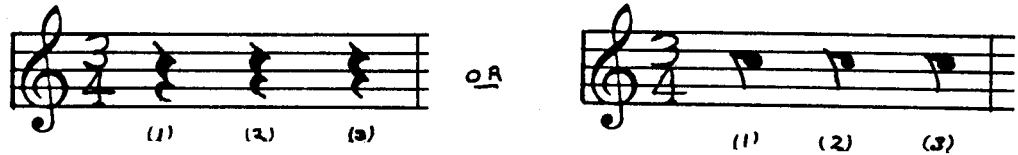
If we wish silence during an interval of time, we indicate this through the use of rests. These have time durations equivalent to the appropriate notes. E.g.,



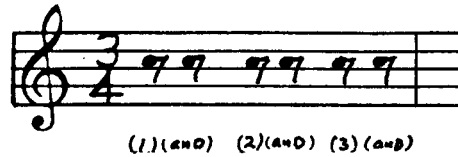
Half Rest



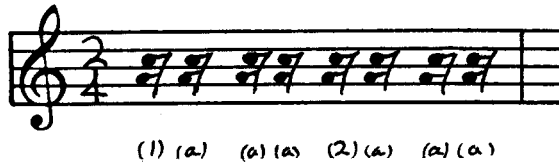
Quarter Rest




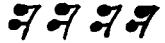


Eighth Rest




Sixteenth Rest



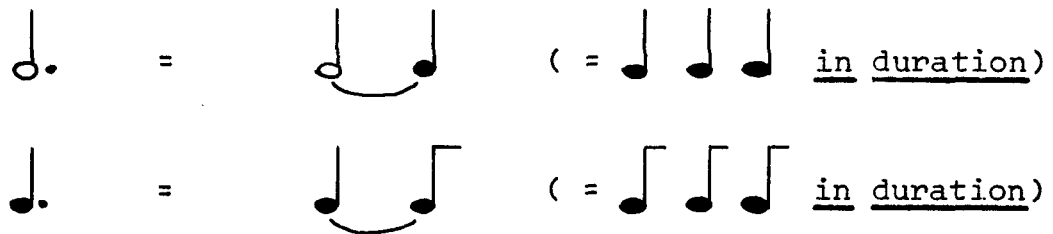
Hence, 1 quarter rest =  or  = 2 eighth rests 
= 4 sixteenth rests 

And, 1 whole rest =  = 2 half rests 
or 

From this point on, we will use the  notation for quarter rests.

Dotted Notes

Occasionally we wish to express a time duration longer than its assigned value. We can do this two ways. We can connect two notes of the same pitch; the duration is the total of the notes thus connected. Or we can write a dot immediately following the note, indicating that a note thus marked is half again as long as the same note without a dot. E.g.,



IV The Concept of Compas

We now come to what is probably the most important single concept in the rhythmic aspect of the art of flamenco, the concept of compas.

Most of the folk music of the world is cyclic in nature. This means that the basic rhythm patterns recur in time. A simple example of this is the waltz, which has the simple rhythmic cycle of threes:

1 2 3 1 2 3 1 2 3 1 2 3

We call one of the sequences $\hat{1} 2 3$ a cycle, and we see that this cycle constantly repeats. In flamenco, these cycles, together with the key and scale, determine the toque that is to be interpreted. (Or rather, the toque determines the key, scale, and cycle structure.) Some toques do not have a strict compas, but even with these, the phrasing of the various fálsetas will be found to have a structure similar to those in compas in other toques.

The ability to keep compas is absolutely essential to the accompaniment of the dance, and aficionados look for this first in a guitarist.

We shall begin with the compas of the Soleares as our final topic in this lesson. We shall then develop some of the other 3/4 rhythms; the Bulerias, the Alegrias, and the Fandangos de Huelva, for example.

Introduction to the Soleares

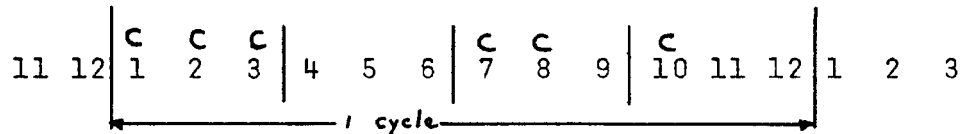
The Soleares is the most fundamental toque in flamenco. It is played usually in the Phrygian Mode in the key of E. The Soleares cycle is in 12 counts, and is represented in four measures of 3/4 time. The accentuation is on the counts of 3, 6, 8, 10, and sometimes 12.

Hence,



The music tends to return to the tonic chord or note on the 10th count. This means that the melody and phrasing resolves to the the tonic on the count of 10.

The traditional palmas (handclaps) used to accompany the Soleares include the phrasing of palmas on the counts 1, 2, 3, 7, 8, and 10; i.e.,

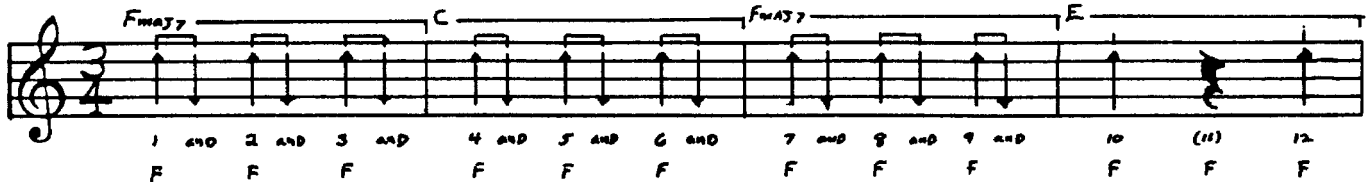


Of course, the cycle repeats immediately.

Basic Chording Compas

We can think of the toques of the flamenco guitar as having two essential elements; the chording compas, which consists of chords played in progression, and providing a rhythmic foundation, and falsetas, which are melodic variations, usually runs, arpeggios, tremolos, or other techniques. Of the two concepts, the chording compas is the most important, and you should thoroughly master this before you concentrate on falsetas.

The basic chording compas of Soleares is the following:



using up and down strokes with the index finger. An aid to keeping rhythm is to learn to coordinate your techniques with your foot, which acts as a metronome. In the case of the Soleares your foot comes down on every beat (indicated by "F" in the above diagram).

Try the chord progression $F_{maj7} \rightarrow C \rightarrow F_{maj7} \rightarrow E$.
Using the same phrasing, another variation could be:
 $C \rightarrow G \rightarrow F \rightarrow E$, and, of course, $A_m \rightarrow G \rightarrow F \rightarrow E$.

Practice these chord progressions in compas, developing coordination between your index finger and your feet; listen for and accentuate the resolution to E on the 10th count.