

MARTINO

BASIC FUNDAMENTALS

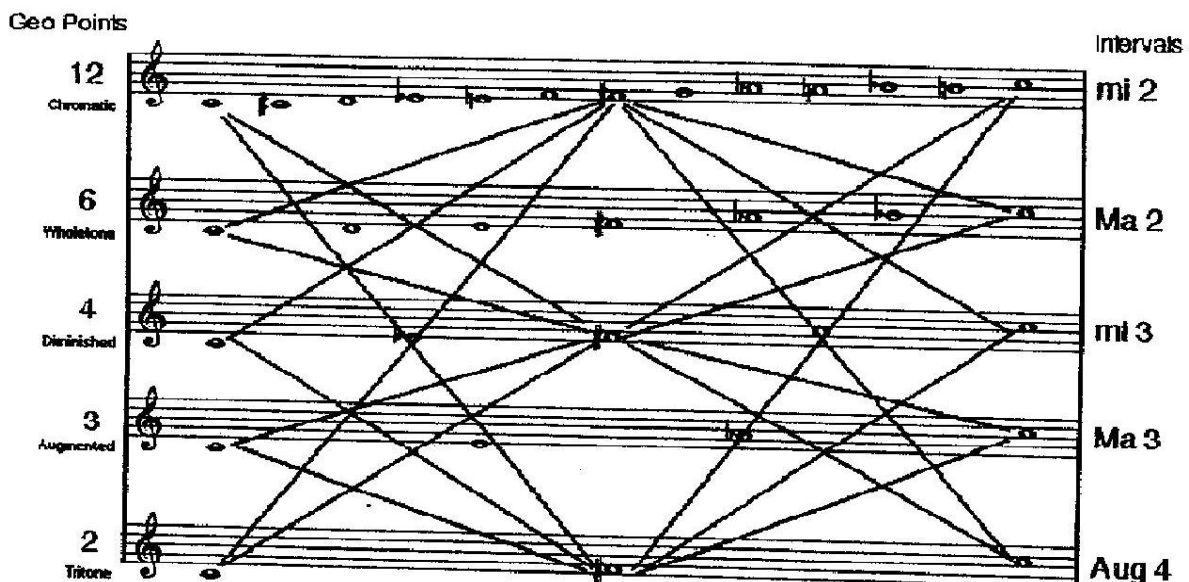
excerpts from "The Nature of Guitar"

www.patmartino.com

Chord Forms

I'll do the best I can to describe what those particular "drawings" meant to me, how they began to unfold, and in the process share information that in many ways transcends music curriculum, and moves closer to the Nexus, a point where all points meet.

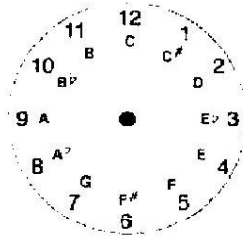
I remember when I began to graphically display music in ways that helped not only to define specific topics of my studies, but also began to suggest other implications. The following is one of the first diagrams that functioned in that way.



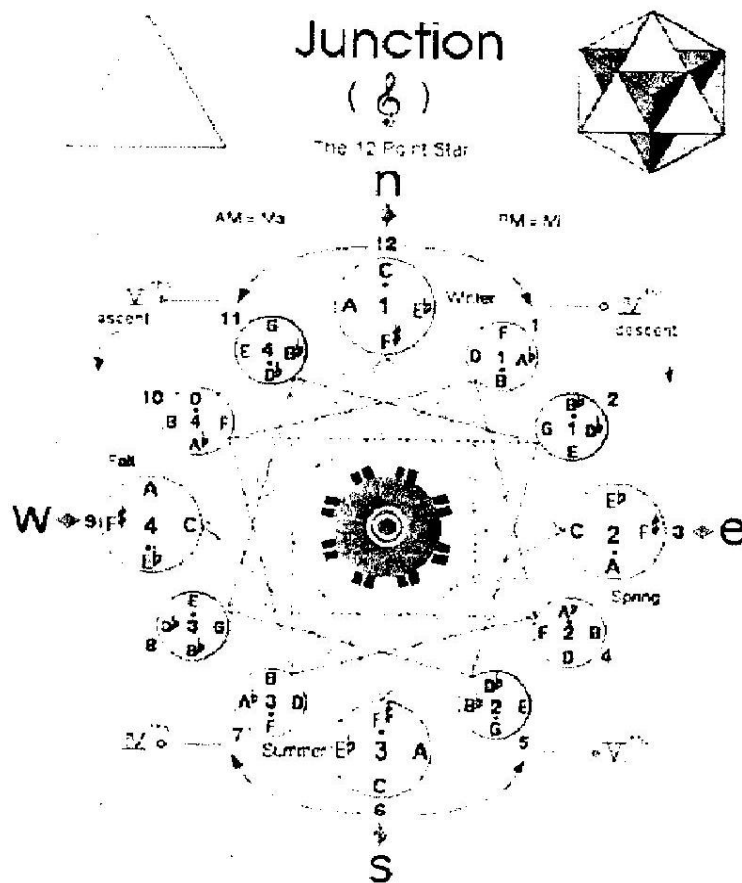
Upon what appeared like an orchestral manuscript, rested 5 scales of intervals, divided into separate parts, as a larger matrix. Presentation in this way began to suggest the importance of greater dimension for the sake of analysis.

As this progressed, the chromatic scale no longer confined itself to a horizontal line, it visually circumscribed its twelve tones on the face of my wristwatch, revealing for the

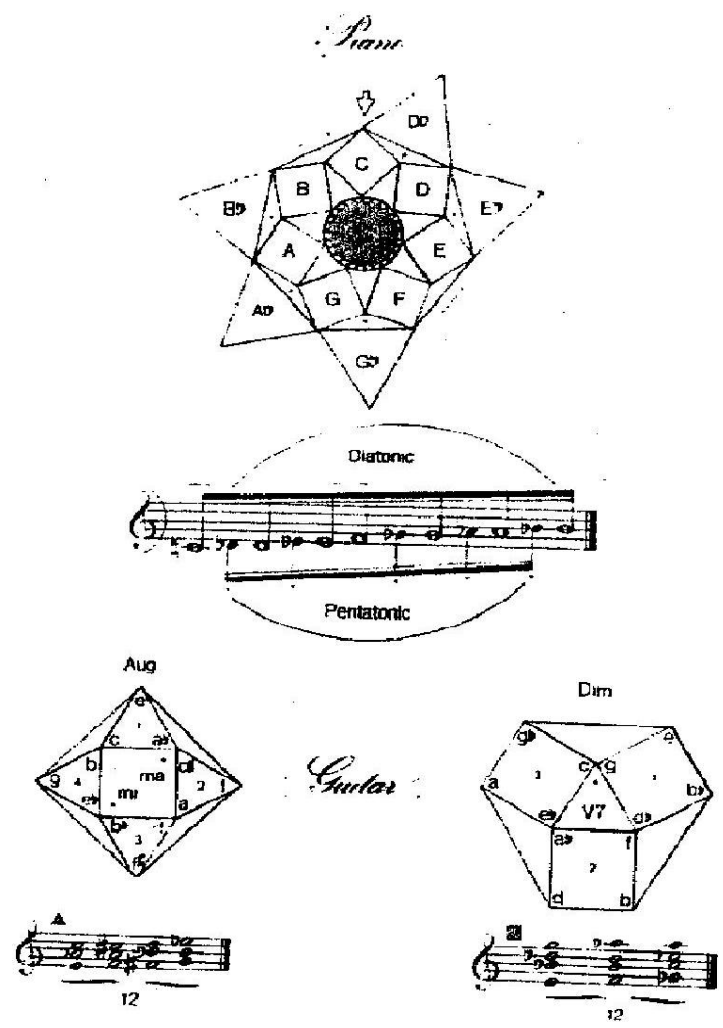
first time geometrically shaped intervals, as well as suggesting melodies each time I looked at its positions of time.



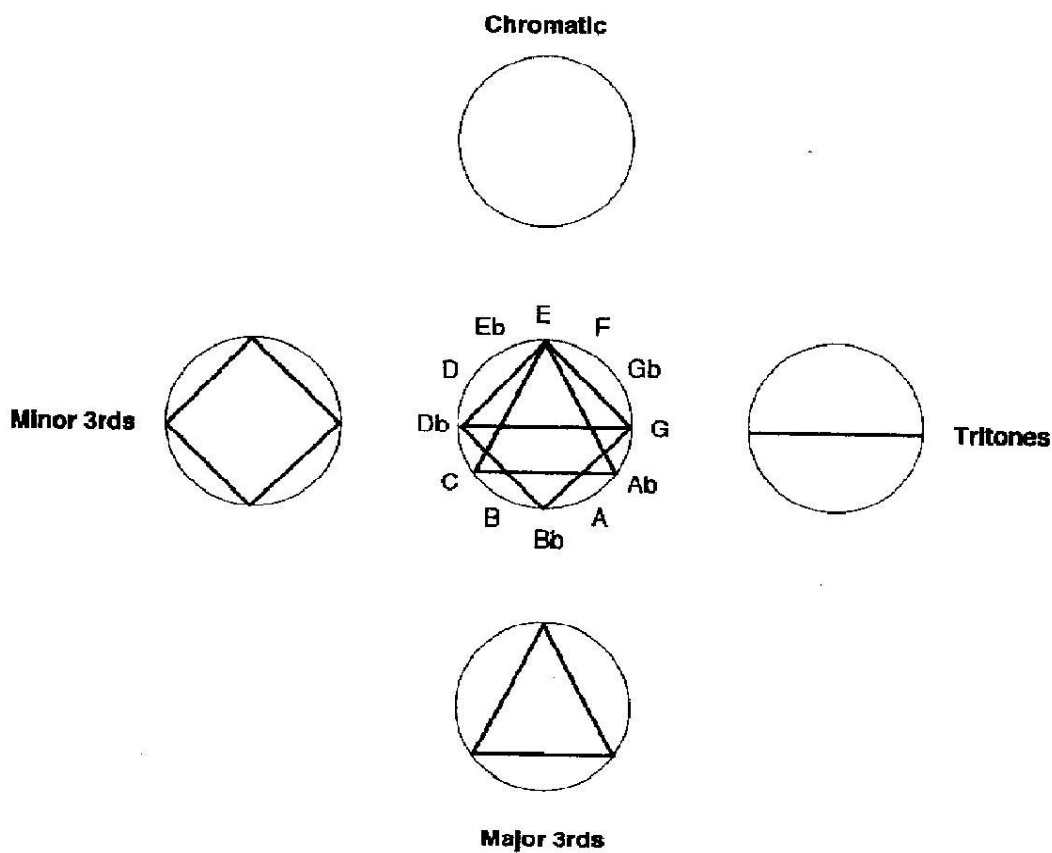
My use of Letroset, along with calligraphy pens helped to capture, as well as present some of the first diagrams used for private teachings.



Martino 1972



"The Nature of Guitar" began, (in the late 60's, early 70's) as seen above, not specifically as a study of music, but more like a study of perception. To this day it's continued to redefine my interpretation of information. The following text, focuses upon the application of it to the Guitar.



Primaries

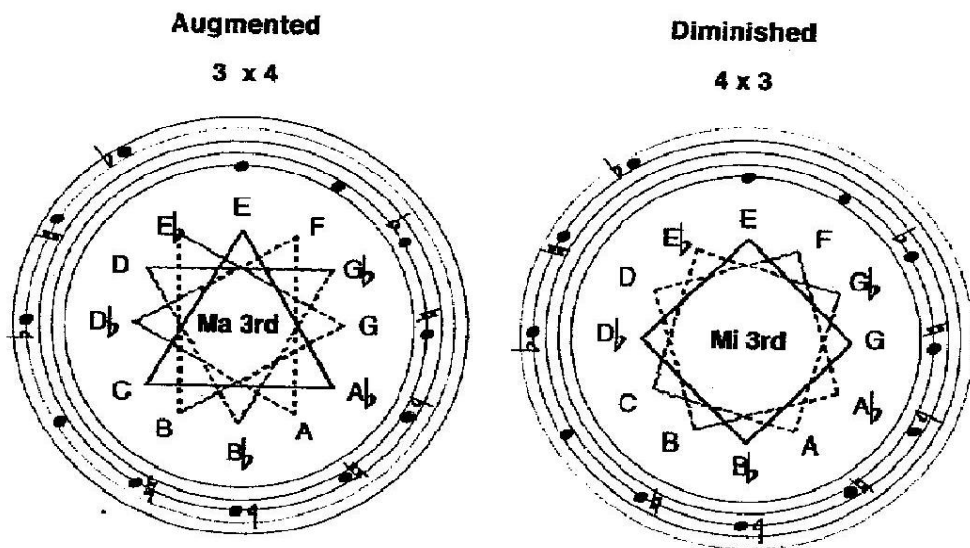
If we begin with exactly how we visualize different tonal intervals, we're normally taught to see an arrangement of tones as an ascending, or descending order of pitches viewed upon a horizontal staff as follows:

Eg. 1 A Twelve Tone Scale, from E



When arranged in a circular array, (as opposed to being horizontal) that same chromatic pattern begins to define itself in quite a different way.

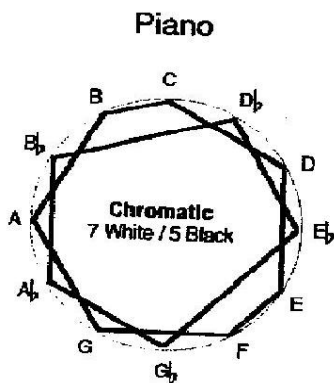
Eg. 2 A Twelve Tone Scale, from E
(two circumscribed intervallic systems)



We can now view the triangle and the square, as two innate divisions of the chromatic circle.

The difference found in two separate instruments, specifically the piano and the guitar, immediately defines itself as follows.

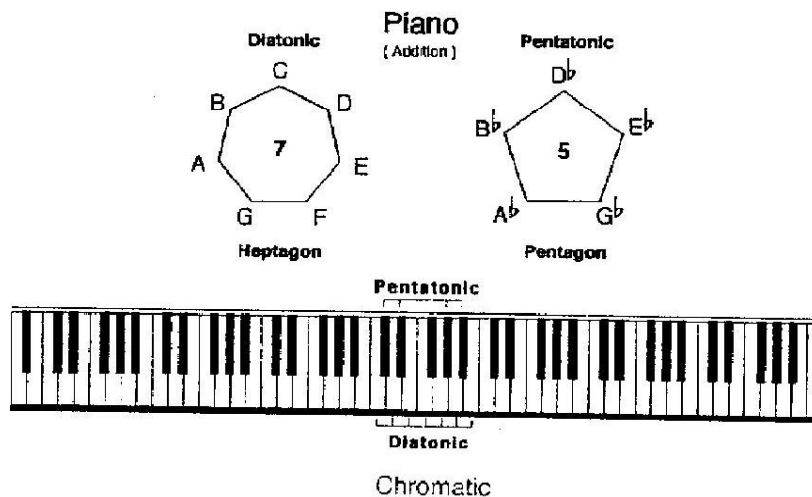
Let's begin with the first drawing presented in "Nature of the Guitar".



The Piano is a stringed percussion instrument. Its keyboard operates horizontally, and although it contains multiple keys, (hammers) only 12 of them are needed to display its automatic functions.

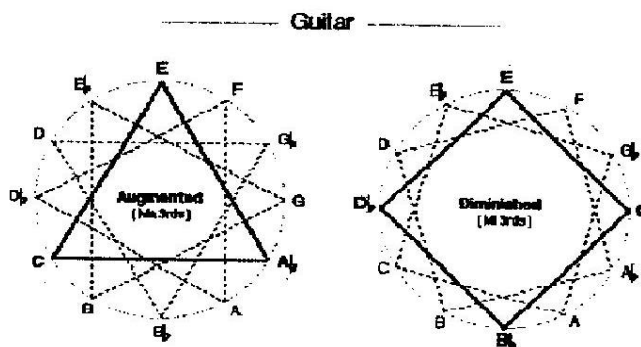
The keyboard itself is a white and black structure. The first of these two automatic forms, (the white keys) from the tones C to B, (Diatonic) are 7 in number, while the second one, (the black keys) from the tones Db to Bb, (Pentatonic) are 5 in number, after which, repetition takes place. These elements indicate that the addition of $7 + 5$ results in a full chromatic scale. These keys also contain 7 modes, (Ionian, Dorian, etc).

Eg. 3



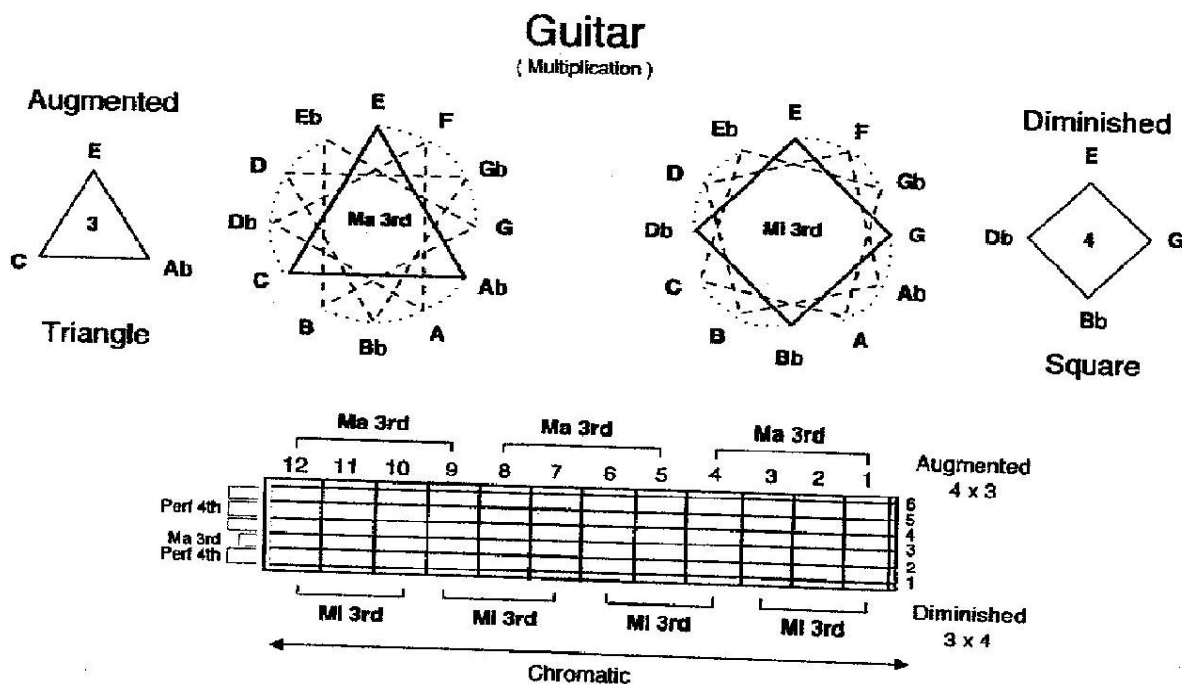
Take note that a curriculum generated from the piano alone often bypasses elements concealed within some of the other instruments, but in a social context remains extremely valuable when used to educationally establish a general language, shared as a prerequisite by the members of an interacting musical community.

Let's now consider the Guitar.



Similar to the piano the guitar is also a stringed instrument, although its automatic functions appear in quite a different way. Unlike the auto-functions of the piano, symbolized as a heptagon and pentagon, ($7 + 5 = 12$) the auto-functions of the guitar symbolize themselves simplistically as a triangle and a square, ($3 \times 4 = 12$, or $4 \times 3 = 12$).

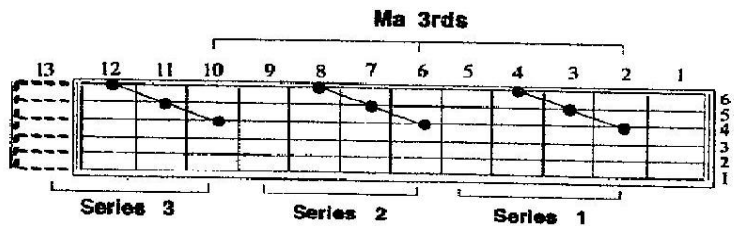
Eg. 4



The Augmented Parental Form

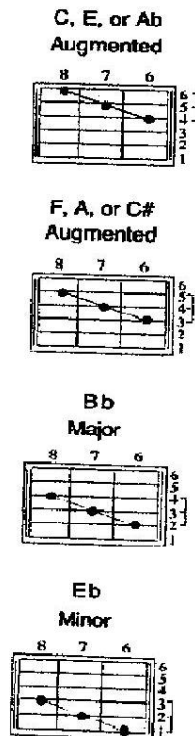
The augmented form displays its inversions, (per string group) horizontally across the fingerboard with each position a major 3rd apart.

Eg. 6



When placed in a vertical stack at the 6th, 7th, & 8th frets from one string set to the next, (654, 543, 432, 321) the following unfolds:

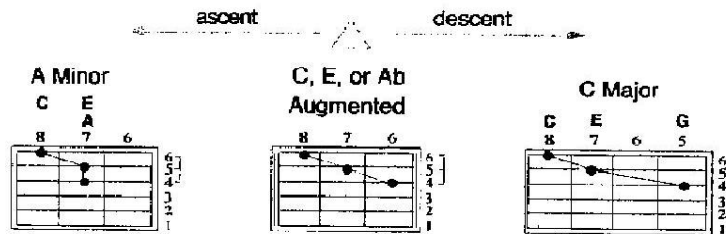
Eg. 7



These harmonic forms naturally reveal three separate structures. Two augmented triads, (similar as one) a pure major, and one pure minor triad.

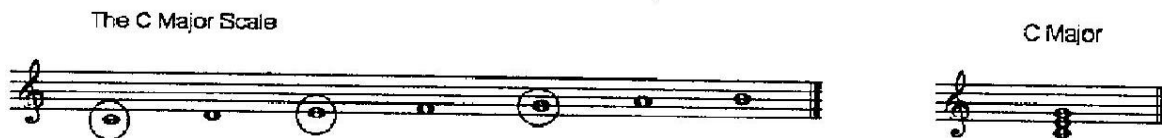
With a single augmented triad, if instead of moving it fully outside of itself, (to its next vertical inversion) we horizontally move only one of the three tones within it, the following takes place. Moving that tone 1/2 step down produces a pure major triad, while the same tone if moved 1/2 step up produces its relative minor triad.

Eg. 8



For the guitarist this process alleviates a need for the traditional approach, based upon an extraction of the root, third, and fifth from any diatonic scale to form its major triad.

Eg. 9

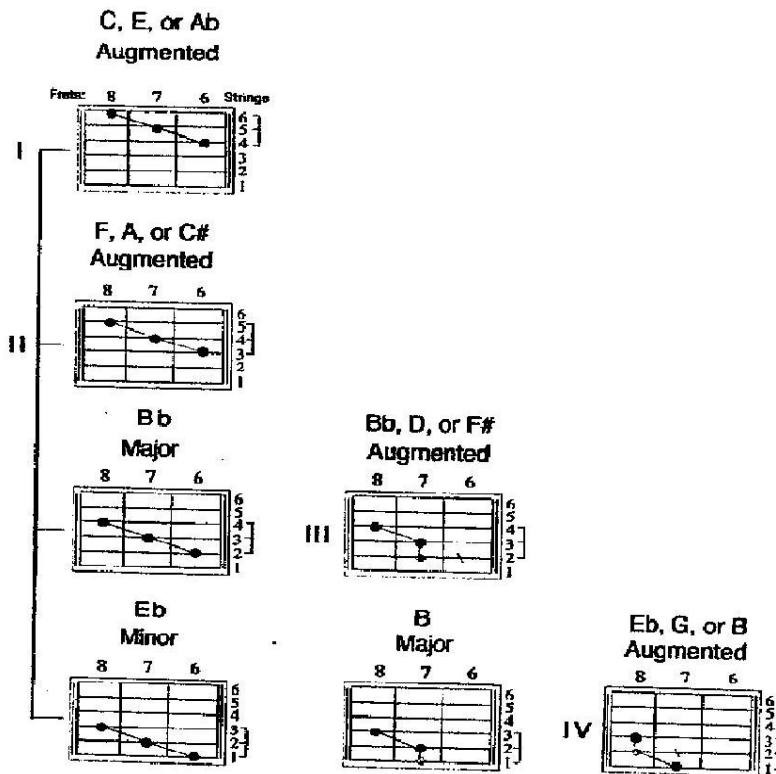


In fact, this method not only unveils the C major triad, and its relative A minor, but two others as well, E major / C# minor, and Ab major / F minor. It also automatically transposes thru all twelve keys horizontally across four frets, (three keys per fret) prior to its next series of auto-inversions on this particular string group, (654).

Remember, 4 x 3 = 12.

As seen on page 5, (Eg. 7) the fingering being moved from one string set to the next reveals a valuable suggestion, that this "parental form", the augmented triad contains opposite polarities of major & minor results. What's most important to be done from this point forward is to flip the coin, and recreate the parental inversions from those "siblings", so that the end result establishes a complete array of augmented inversions, both vertically and horizontally.

Eg. 10

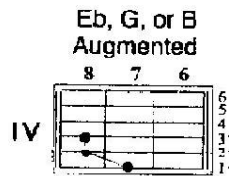


As viewed in Eg. 10, when the original augmented form, (654) was vertically transferred to its next 3 string set, (543, using the same fingering) it remains augmented. But when moved to the next set, (432) it becomes a Bb major triad.

Because of the guitar's tuning of the second string as a ma 3rd, (instead of a perfect 4th) all that has to be done to recreate the new augmented inversion, on that group of

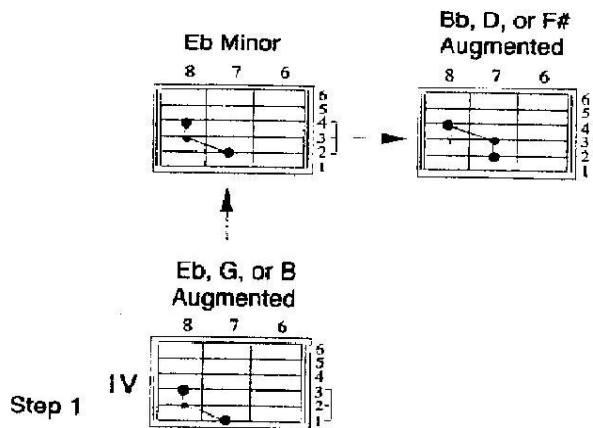
strings, (432) is to raise the tone on the second string 1/2 step higher. Likewise, when the same fingering of that form, (as an augmented) is transferred to the next and final adjacent set of three, (321) it automatically appears as a B major triad, and once again, by raising the tone on the second string 1/2 step higher it produces the final augmented inversion on that set of strings, (321).

To form vertical inversions in the opposite direction, (from higher to lower sets of strings) the procedure is reversed in the following way. This time we begin with the IV triad, (321) in Eg. 10,



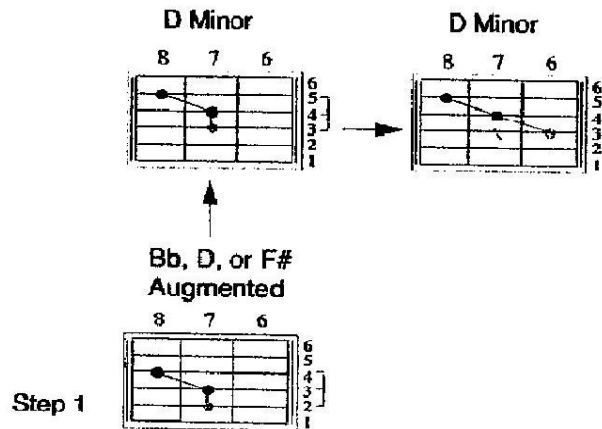
and after transferring it to the next set, (432) the following takes place:

Eg. 11



As it can be seen, the augmented, (321) now transposes itself to an Eb minor on the 432 string group, then by lowering the Eb, (located on the 3rd string, 8th fret) ½ step the next augmented inversion is created on that string group, (432).

Eg. 12

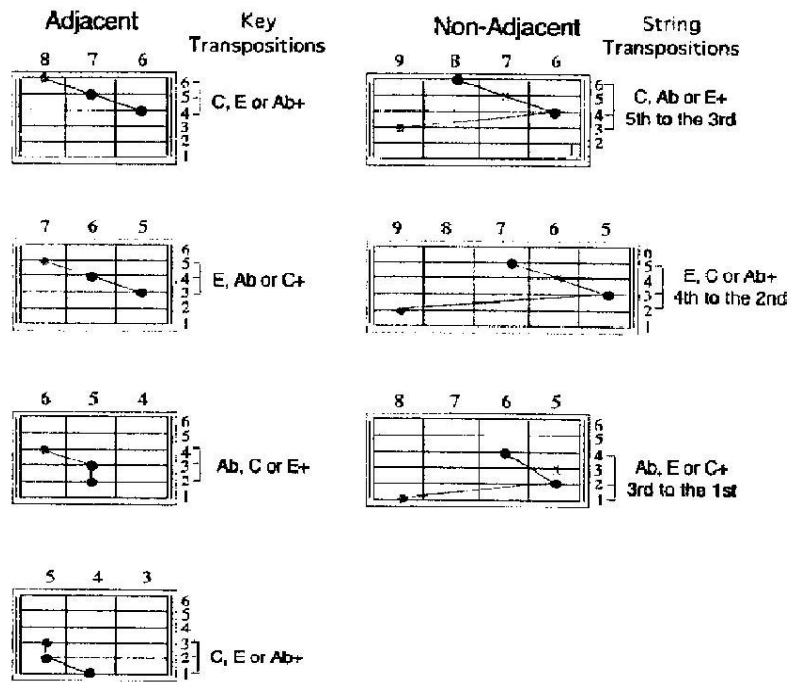


After its fingering takes shape on the 543 group it automatically repeats in the same way on the 654 set.

In retrospect the most interesting facet of this process is polarity itself. Keep in mind how opposites have continuously appeared, (ascent & descent, major & minor, etc.) for this shall continue to occur.

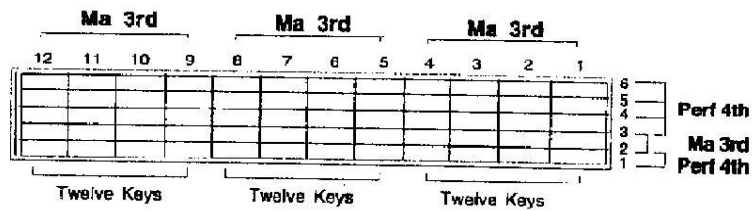
Adjacent fingerings are transformed into non-adjacent ones by transposing the tone on the central string one octave higher. The following diagram contains 4 adjacent sets, along with 3 non-adjacent as well.

Eg. 13



In summary, these augmented triads auto-invert horizontally across the fingerboard in ma 3rd intervals upon each of the groups chosen. Also, each of these augmented triads contain 3 major, as well as 3 minor forms culminating with the addition of 4 in a row, (containing all twelve keys).

Eg. 14

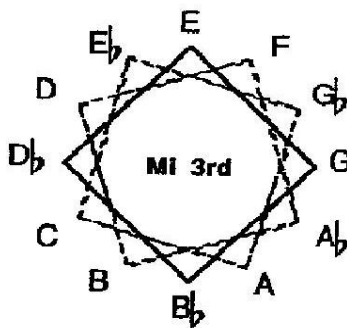


The Diminished Parental Form

A general compositional presence of pure **major and minor triads** can be found idiomatically within certain types of music, (classical, rock, country & western, bluegrass, pops, etc.) while the use of the **V7th chord**, and its variations appear in idioms like blues, rhythm & blues, jazz, (forms of be-bop, hard bop, etc.).

In the following example the diminished interval, (mi 3rd) displays itself on three separate planes, collectively covering the circular chromatic scale.

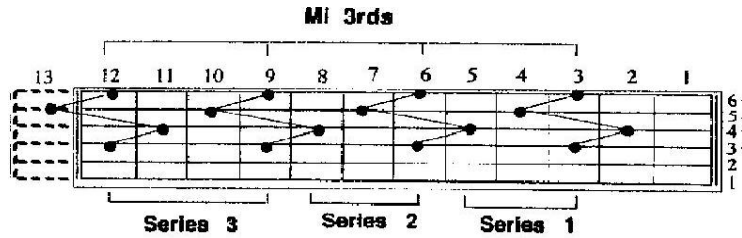
Eg 15



Similar to its partner it also reproduces perfect inversions of itself, with no change of fingerings. The difference found in its ratios is how it moves itself, (in ascent) as three in a row, (before reaching its next inversion) with four horizontal inversions, (per string group) the opposite of the augmented triad, which moved in ascent as four in a row, (before reaching its next inversion) with three horizontal inversions per string group.

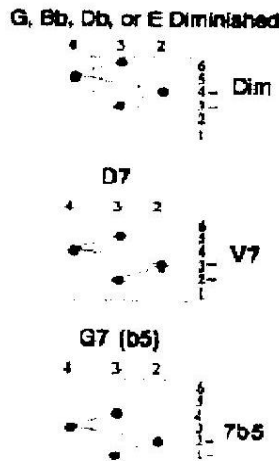
When organized upon its lowest adjacent set of strings, (6543) it appears in the following order:

Eg. 16



Named from its lowest tones it arranges itself as G, Bb, Db, and E diminished.
 When its first inversion, (G dim / 6543) is transferred to the next adjacent string set, (the inside group, 5432) it becomes a D7, also referred to as a semi-poly chord, (D major, over a C pedal tone). When transferred once again, this time to the third and final set, (4321) it becomes a G7 (b5) chord. They appear as follows:

Eg. 17

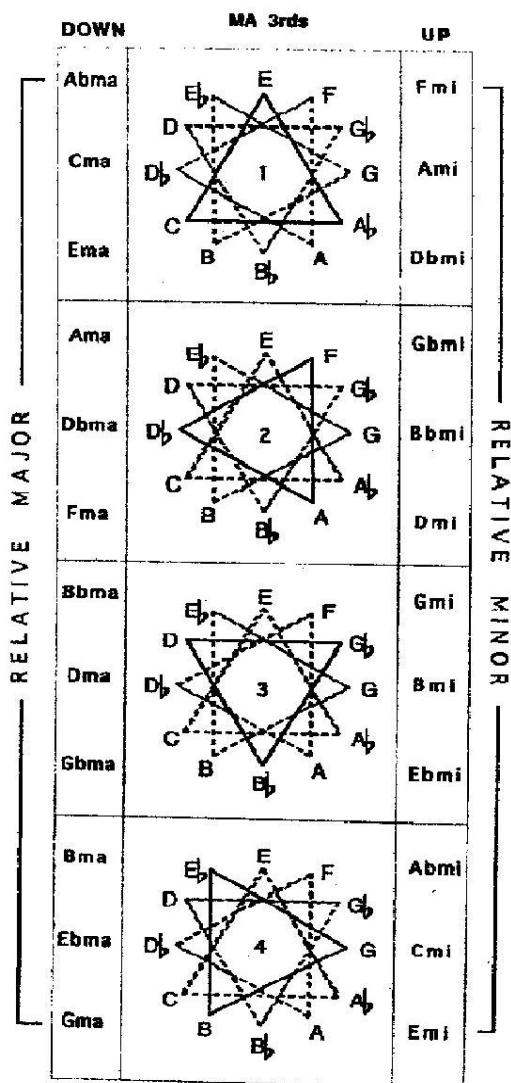


Similar to the two augmented methods, (ascent, and descent) of creating alterations to majors and minors the diminished becomes V7 forms thru lowering any one of its tones

Geometric blueprints for both of these parental forms appear in the following diagrams:

Eg. 20

The Augmented Formula
The movement of any single tone 1/2 step



Transformations

