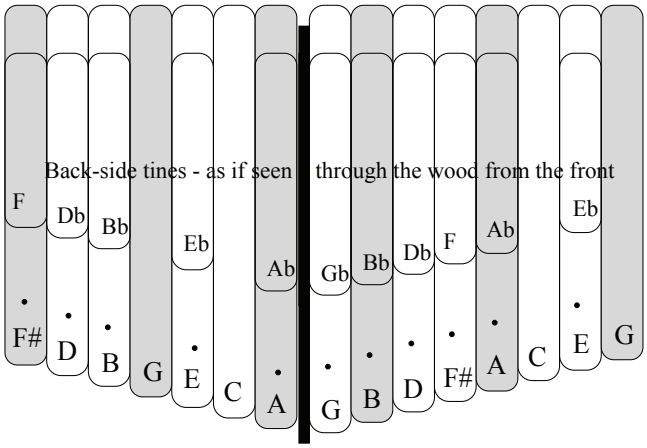
From Alto Kalimba to Chromatic Kalimba

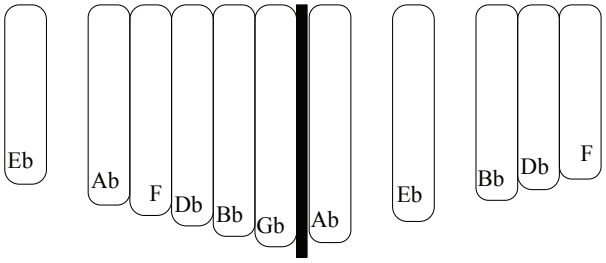
Mark Holdaway

The first-ever guide to the challenging two-octave, fully chromatic Hugh Tracey Chromatic Kalimba, with the Key of G on front and accidentals on the back. CD included!



Front Tines

Tines with dots on have a flat right behind them.

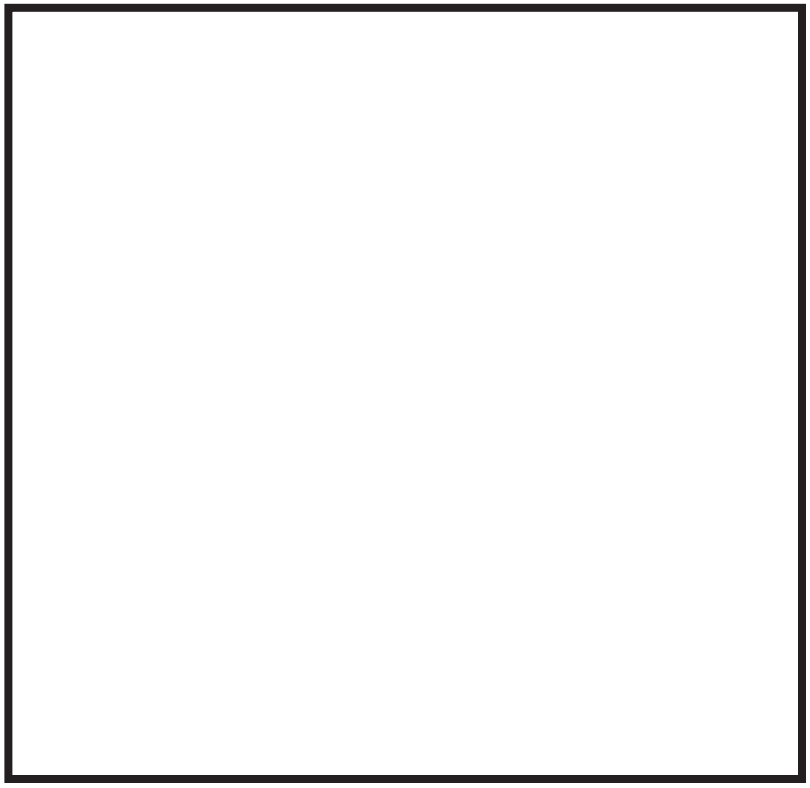


Back side "flat" tines as seen from the back.

On the front, the Hugh Tracey Chromatic Kalimba is just like the diatonic Alto Kalimba in the key of G.

The key insight that makes the chromatic kalimba possible is placing the chromatic notes on the back. While there are many ways to arrange the back side notes, Sharon Eaton of KTabS suggested that the flats on the back be positioned so they are right behind the unflattened version of the same notes on the front. For example, find B on the front. Bb will lie on the back side, immediately underneath.

If your chromatic kalimba is set up in another way and you want to use this book, send your kalimba to Kalimba Magic and we'll change the setup for you.



Where This Book is Coming From

This book assumes that you know what you are doing with the diatonic 15-Note Alto Kalimba. The Chromatic Kalimba is an extension of the Alto Kalimba, and the front of the Chromatic Kalimba is set up just like the Alto. If you already know songs on the Alto, you will be able to play them all on the Chromatic Kalimba.

What if you have never played the Alto Kalimba before? You may be able to jump right into this book, but if you have trouble, you may want to get one of the progressive books available for the Alto, and use that to train you gradually on the front part of the Chromatic Kalimba. When you are up to speed on the front side, you will have the skills required to learn the relatively advanced songs in this book, which will also inform you on using the chromatic notes on the back of the kalimba. Another way of developing your skills is to look at the chords and scales in the Appendices.

A full listing of instructional materials available for the Alto Kalimba can be found at:

www.KalimbaMagic.com/alto

By the way, for years I have vigorously tried to dissuade most people from purchasing the Chromatic Kalimba. I found playing this instrument too difficult. I consider myself an expert at understanding various note layouts and tunings, and it takes me minutes or at most a few hours to internalize most new instrument layouts. It took me about ***five years*** to get the Hugh Tracey Chromatic Kalimba. But now I am flying on this instrument - flying in the dark, for that is what it is like, playing the chromatic notes on the back with one's fingers - but flying nonetheless. And it is time to share what I have learned and how I have done so. Perhaps it will take you somewhat less than five years to begin to feel mastery of this truly challenging, but also truly capable kalimba.

If you are ready to make the plunge and jump into the world of possibility, I think you will find the Chromatic Kalimba a wild ride, worthy of your time and energy and love.

Mark Holdaway
Tucson, AZ
January, 2014

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Philosophy of the Chromatic Kalimba

If you are familiar with the typical kalimba, you will know that the notes are usually tuned diatonically (that is, the notes of "Do Re Mi Fa Sol La Ti Do" in some particular key), and they alternate from left to right progressively as you go up or down the scale. The longer, lower notes are in the middle, and the shorter, higher notes end up on the far left and the far right. That note layout is the organizing principle of the diatonic kalimba.

The Hugh Tracey Chromatic Kalimba maintains that organizing principle for the front notes. The "flats", or black notes, are to be found on the back and must be plucked by your fingers. How do you find the notes without looking? That is not trivial, and I'll share some tips to help you with that. You need to construct a detailed map of the back notes in your mind, which will take hundreds of hours to perfect. But one note-layout decision helps you immensely with that task: following the suggestion of Sharon Eaton, the Chromatic Kalimba is set up such that the "flats" on the back lie immediately behind their unflattened counterparts on the front. Furthermore, not all of the notes on the front will have a flat on the back (C's flat is B, both of which are on the front - or another way to think about it: for each octave on the piano, there are seven white keys and five black keys, so there will be gaps in the flat notes on the back). In order to help me keep my place on the Chromatic Kalimba, I paint little dots on the front tines that have a flat right behind them on the back side. To play one of those flats - say Eb - I see the dot on the E tine on the front, and with one of my fingers, I "aim" right for the tine immediately underneath the dotted "E" on the front side. That is, the series of dots on 11 of the 15 front notes gives me a visual reference for where all the flats are on the back, even though I cannot see those tines.

Some people prefer to put the front notes in the key of C (the instrument is still two octaves, with G 3 in the low note and G 5 in the high note). This tuning setup is quite reasonable in that the notes on the back are the flats. However, the way I set up my chromatic kalimba, and the setup that I sell about 90% of my chromatic kalimbas in, puts the front notes in the key of G. Why? Because then the key note, G, is also the same as the bass note and the highest note too, which is very convenient. Also, many people already know so many songs on the G Alto, which is the same notes as the front of the chromatic kalimba. The F# is needed on the front then to make all the notes in the key of G. But what about those "flats" on the back? Well, they are Bb, Eb, Ab, Db, and... F natural. The two F# notes on the front have dots on them, which means the F naturals are right behind them. So, logically, the F natural is the first flat on the back.

The G Hugh Tracey Chromatic Kalimba - the dots near the bottom of the front of the kalimba make a mirror image of the tines on the back side when flipped over.

On the upper left side of the front are three consecutive dots which are mirrored by the grouping of three tines on the upper right side of the back tines. The right side of the front tines has a grouping of five tines with dots and one stray dot up high, which is mirrored on the left side of the back tines.

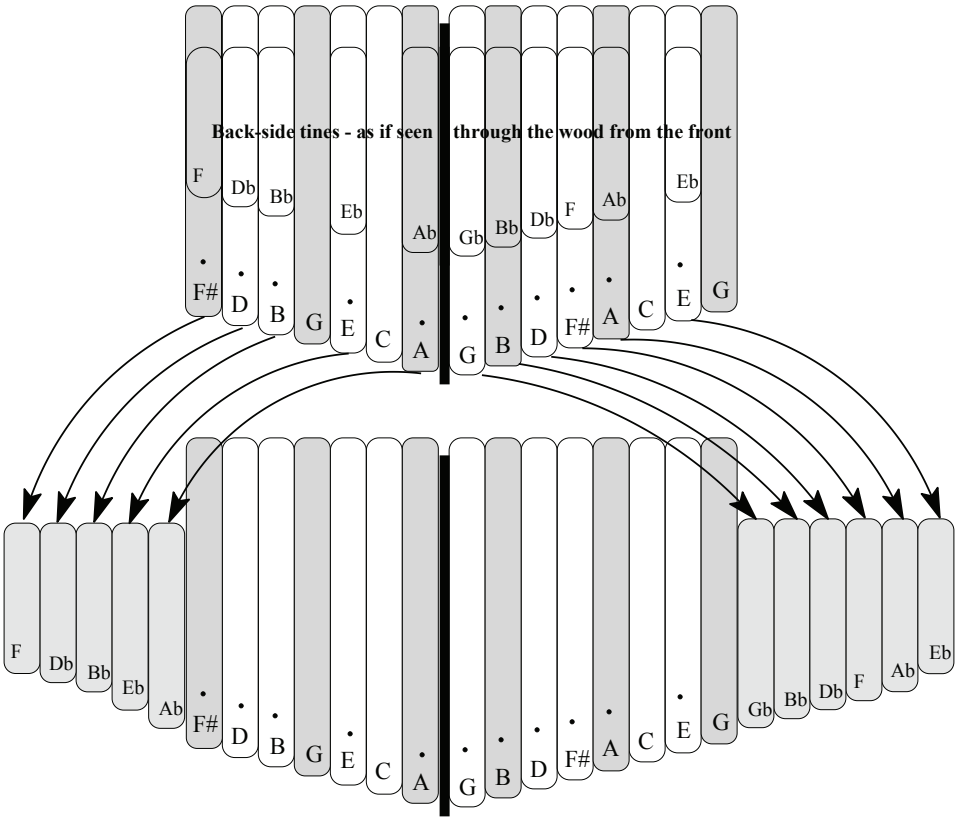
Tablature for the Chromatic Kalimba

By now, more and more people are familiar with the kalimba tablature. The tablature is a map of the kalimba's tines, including shading on the map to indicate painted tines. The lines run up the page from bottom to top, and the notes to be played - or rather, the tines to be plucked - are indicated in order using all the common rules for note length, measure bars and timing, etc. If you need to brush up on those rules, there is a series of Tips of the Day that will help you:

http://www.kalimbamagic.com/tipoftheday/tip_tues_archives.php#notation

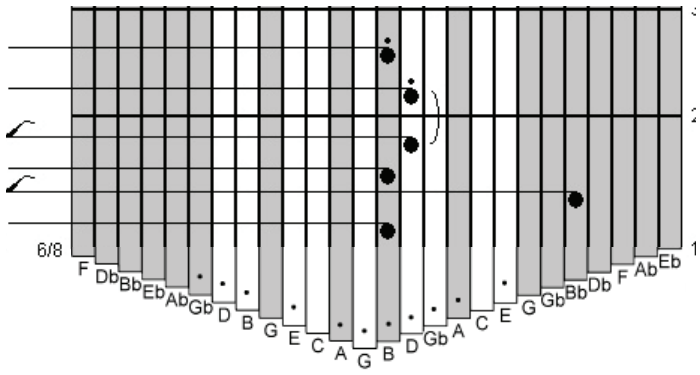
Chromatic kalimba tablature presents a problem in that there are two channels of information that must be conveyed - the front tines and the back tines. Ideally we would have a three dimensional reproduction of the kalimba, with a flow of tablature for the front tines, and a flow of tablature for the back tines underneath. Since this is a two dimensional book, I have two two dimensional solutions to this problem in presentation: **Explicit chromatic tablature** shows the front tines in the center, with painted tines showing up as shaded tines. The "flats" on the back show up in two places: the five left side flats show up to the left of the 15 front tines, and the six right side flats show up to the right of the 15 front tines. The weakness in this method is that shaded tines on the tablature sometimes indicate a painted tine, and sometimes indicate a back side flat. Once you are familiar with the kalimba's layout, you will immediately recognize the high F# and high G as painted tines, and all the tines farther left than F# and farther right than G are the back side flats.

Tuning Diagram



Tablature Diagram

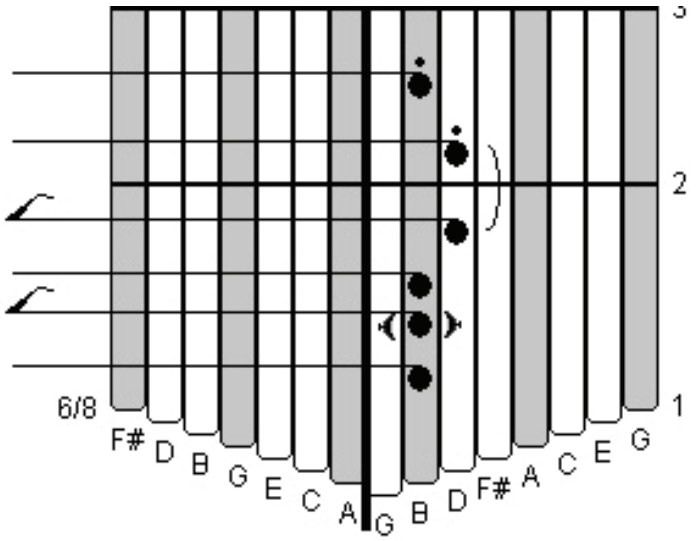
The back side "flats" show up as shaded tines on the outer left and right of the tablature.



Explicit chromatic tablature.

Implicit chromatic tablature looks just like regular Alto tablature with only 15 tines. When you play one of the flats, the note in the tablature shows up on the unflattened note right in front of the note to be played, with our own little flatting symbol next to it to indicate the back side flattened note must be played. The second note in the explicit tablature above is a Bb. In the implicit tablature for the same music shown below, the second note Bb is indicate by the note on the B tine with the fancy ( ) around it, meaning "play the note right behind me!"

I think this tablature is much easier to read, and it ties the front and back notes together strongly.



Implicit chromatic tablature.

Some Important Tips to Help You Play Chromatic Kalimba

How big are your hands? The box-mounted Alto kalimba might be perfect for you, but the box-mounted Chromatic kalimba may be too big, because you need extra finger reach to get all the notes on the back. If you have smaller hands, or if you feel the box-mounted Chromatic kalimba is too big for your hands, you might want to try the celeste, or board-mounted chromatic kalimba. The celeste kalimbas are smaller and will fit better into smaller hands. On the other hand, they are also quieter, and you cannot make the *wah-wah* effect on them.

Finger nails and second fingers. Which fingers you use and if you play with your nails or pads is entirely up to you. I think most people play kalimba using their thumb nails for a pick. This lets you do the glissando - your thumb nail slides over the tips of two or more adjacent tines to make a chord. And playing with the thumb nail also permits me to play for hours without any pain. I myself have also grown my nails long on my second fingers, and I pluck all of my back side notes with my second fingers' nails. My third fingers are anchored at or near the two back vibrato holes. My first fingers are anchored to the side of the kalimba body. The first and third fingers being anchored down to the sound holes and the kalimba side provides a good reference to my second finger which is doing all of the plucking.

Photo - back side of kalimba, showing fingers 1, 2, and 3.

Finger pads, using three fingers. Aaron Chavez uses three fingers (all but the pinky) to play the back side notes, and he has callouses on his finger pads, which he uses much as a harpist would use to pluck the strings of a harp. This technique would undoubtedly be superior for playing pieces that required a lot of chromatic notes, and would permit one to play very fast on such songs. On the other hand, your finger pads will hurt for several weeks as you develop your callouses, and even after you have the callouses you might not be able to play as long as people playing with their nails can do.

Photo - back side of kalimba, showing fingers 1, 2, and 3.

Alaska Piks? The Alaska Pik guitar finger pick was design by Kevin Purcell while vacationing in Alaska. They are made of PVC, and fit around your thumb or finger, with the tip sliding under whatever bit of nail you have. If you really have no nail at all for the pik to slide under, they won't really do much good. Piks for thumbs are typically XL or L (they are sized for fingers). You can get a pair (or two, or three) for your fingers - probably an L or an M. I do not like to use them on my fingers, because without the pick covering up my skin, my fingers can feel which tine I am hovering over.

Alaska piks

Some Important Tips to Help You Play Chromatic Kalimba (continued)

How can you possibly play the backside notes without looking at them? Basically, you need to know exactly where those backside notes are without looking. Here are some tips that will help you!

* The "flats" are placed immediately behind their unflattened counterparts on the front.

* Actually, if you look at the backside chromatic notes on my kalimba, the flats are not quite immediately behind the front unflattened notes. When I set the kalimba up that way, the backside notes seem to be much farther away than they should be. So I angle those backside notes such that they are actually closer to the sides of the kalimbas. If I had really big hands, I wouldn't have to do that, or wouldn't do it as much. If your hands are smaller, you may want to do that more. (If you do, you need to be careful not to excite a buzzy tine, or if you do, use the paper method or other methods to fix the kalimba buzz - search the internet for that phrase, fix the kalimba buzz, to find out how to fix it.) So, the backside notes are actually positions so they *feel as if they were* right behind their front-side counterparts.

* You have undoubtedly seen a movie with a blind person walking in a familiar environment. They have internalized a total map of where everything is and how they have to move among the obstacles or the targets. You need to become that familiar with the little room that is your kalimba.

* Notice that there are gaps in the back tines. The flats come in groups, a clump of five, a clump of three. And some notes - the two Eb tines - are all by themselves, separated from the other tines with gaps. Be aware of the gaps and clumps to help you navigate. Because the Eb tines are all by themselves, they will be the first of the chromatic notes we will study.

* **Use the imperfections of your kalimba tines to help you navigate.** On the right side back notes (right side as I am playing it with the backside away from me - they are on the left if I turn the kalimba over) there is a clump of five tines in a row. There *would* be six, the Ab on the backside left seemingly runs into the five on the right, but the way I angle the backside tines towards the sides prevents me from confusing the Ab and the low Gb. But still, we have a problem - there are five tines in a row - how can we distinguish them? If we train ourselves for hundreds of hours, eventually we will get it just be being really familiar with exactly where each tine is, by dead reckoning. BUT there may very well be a clue the tines give you. On my kalimba, the low Db, the middle tine of that clump of five, is slightly shorter than where I think it should be if I drew a line between the two adjacent tines, and I use that to help me navigate. Other imperfections you can use to your advantage: do any of those tines lie higher or lower than the average plane the back tines define? You can use that to help navigate. Or you could even bend a particular tine up (or down) slightly until it is out of line just enough for you to perceive it. Another possibility is to intentionally scratch one or more tines. Yet another idea is to put a drop of glue near the tip of a tine so you can feel it. Putting drops of glue on all the tines won't help at all. Plan it out carefully, probably after you have been playing for a month, and you know which tines would be really useful to have a sign post on them!

* **Keep your fingers moving,** hovering over the landscape of the back tines, until an instant before you need to play a chromatic note. If you plant your finger on the right tine a minute in advance of when you need to play it, that will probably work if you only need to play one chromatic note. However, once your finger or fingernail is planted on a particular tine, it is impossible to know quite where it is, without looking at it or without feeling the neighboring tines. If you can remember where you planted it, that's fine. But I find that I do better letting my fingers hover on the back side, maybe touching several tines over a second or two, keeping me informed about where my finger tips are with respect to the tine landscape.

Some Important Tips to Help You Play Chromatic Kalimba (continued)

* **Dead reckoning.** Imagine that you have been playing the chromatic kalimba for five years and you are already an expert. You have plays it so long you don't need any tricks to help you find the right tine. You just reach out and touch the needed tine automatically, by dead reckoning. This is where you eventually want to end up, and just trying it right now and every day, and imagining you already have this capability, will help you know intuitively where the tines are. When you first start, you will miss one out of every two or three tries. But after you do it for a minute, you might only miss once every ten tries. Eventually you will get the right notes 99% of the time. I am still around 98% myself, and my goal is 99.9% - missing only one out of a thousand.

Relative volume adjustment - there are certain backside notes that just require a little more UMPF to sound as loud as the frontside tines. Make a note of which ones need more pluck to sound the correct volume. Is this a matter of some tines playing physically softer than others, or is it that some inconvenient tines are more difficult to play? That is, is this an internal or an external issue? Unclear.

Pickups - the Hugh Tracey kalimbas come with an optional pickup - an internal microphone hooked up to a 1/4 inch jack that can be plugged into a guitar amplifier, an effects processor, or a PA system. Kalimba Magic only carries chromatic kalimbas with pickups.

Front side G major scale uses strict alternation - right, left, right, left.

Flats - each accidental actually has two names - B flat is A#, Eb is D#, Ab is G#, Db is C#, and F natural is E# (sorry about that last one). This kalimba is set up to make flats simple. As you add flats - that is, as a flat replaces its unflatted counterpart on the front side, the scale will still alternate right, left, right, left, but the flat will be on the back side - so it will be something like left-thumb right-thumb left-thumb right-finger.

Sharps - if your accidental is a sharp - C# for example - it will not follow the left-right alternation. In the D major scale, B, C#, D are all on the same side (the right in the lower octave and the left in the upper octave).

Two octaves of each accidental - as the Alto kalimba covers two octaves, each accidental will occur twice on the kalimba. If the accidental is on the back right in the lower octave, it will be on the back left in the upper octave - that is, the accidentals, just like the front side notes, will shift from right to left (or left to right)

By the way, F# is a note that occurs three times - twice on the front and once on the back, the very lowest note. There are three G notes, all on the front.

Hugh Tracey was an ethnomusicologist before the word was even used. In 1920 at the age of 17 he moved to Rhodesia to work on his brother's tobacco farm. He oversaw black workers and discovered they could play wonderful music. Whites in Africa generally had no interest in African music - it was easier to oppress a people if you believed they had no culture and no art. Hugh Tracey was not only amazed by the music he heard, he was also amazed that nobody in the government, the schools, the churches, or the museums seemed to care about this music.

With the help of some of the people he started out overseeing, Hugh Tracey procured funding from Europe and bought state of the art recording technology and started traveling around Africa, recording music and documenting the design and tuning of the instruments he came across. In

1954, he founded the International Library of Africa Music (ILAM) which still works on African music today. Also in 1954 he started African Musical Instruments (AMI) which still makes the Hugh Tracey kalimbas today.

Learn more about Hugh Tracey here:

http://www.ru.ac.za/ilam/history/hughtraceysportrait/

You might not have ever heard her name before, but Sharon Eaton is an important person to you for two reasons. First, it was Sharon who pushed the design of the Chromatic Kalimba to African Musical Instruments back in 2006. She also had the vision to propose the note layout scheme that is used today.

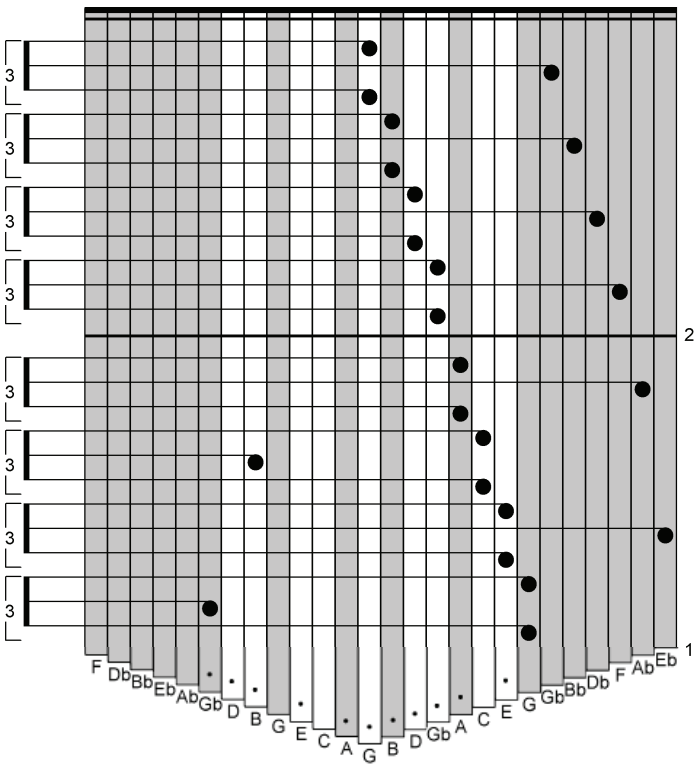
Sharon Eaton is also important to the kalimba world because she asked her husband Randy Eaton to create the KTabS program - Kalimba Tablature Software. KTabS was used to create the tablature in this book, and you can use KTabS to create your own kalimba music.

I think Sharon provides a great lesson that might be applicable to many people. She did not write the software. She did not make the chromatic kalimba. But she had the ideas, and she shared them generously. Without Sharon, neither the tablature software nor the Hugh Tracey chromatic kalimba would exist - or certainly not in the form they are in today. We all owe a huge "Thank You" to Sharon Eaton.

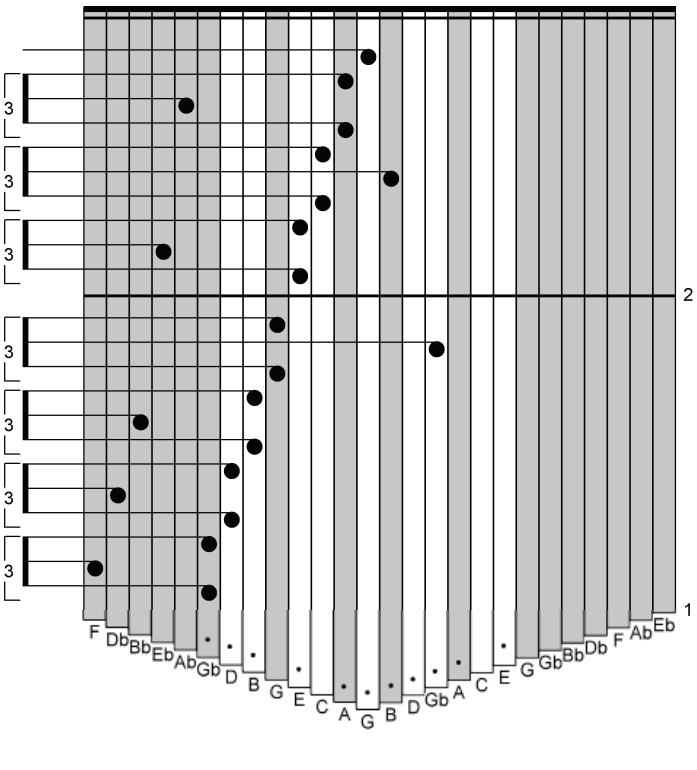
Learn more at:

http://www.ktabs.theirhouse.org

Consider the Black Notes as Flats



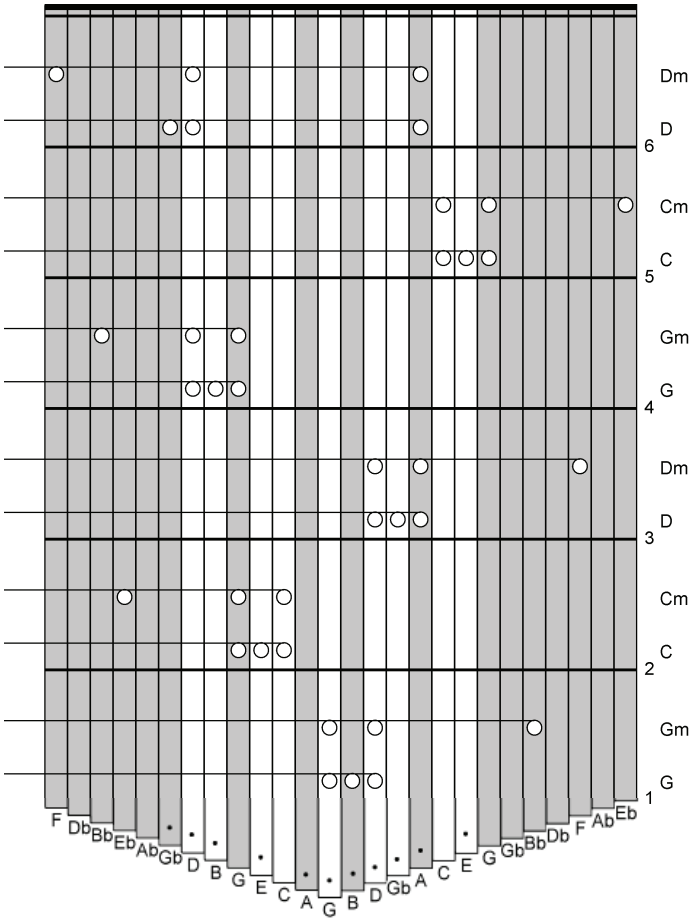
Right side chromatic exercise



Left side chromatic exercise

Front side notes without a dot (G and C) have notes a half step below them that are also on the front, but played by the other hand. Front side notes with a dot have flats (ie, notes a half step below) on the back side immediately behind the dotted front notes.

Flat Notes are also Minor Notes!



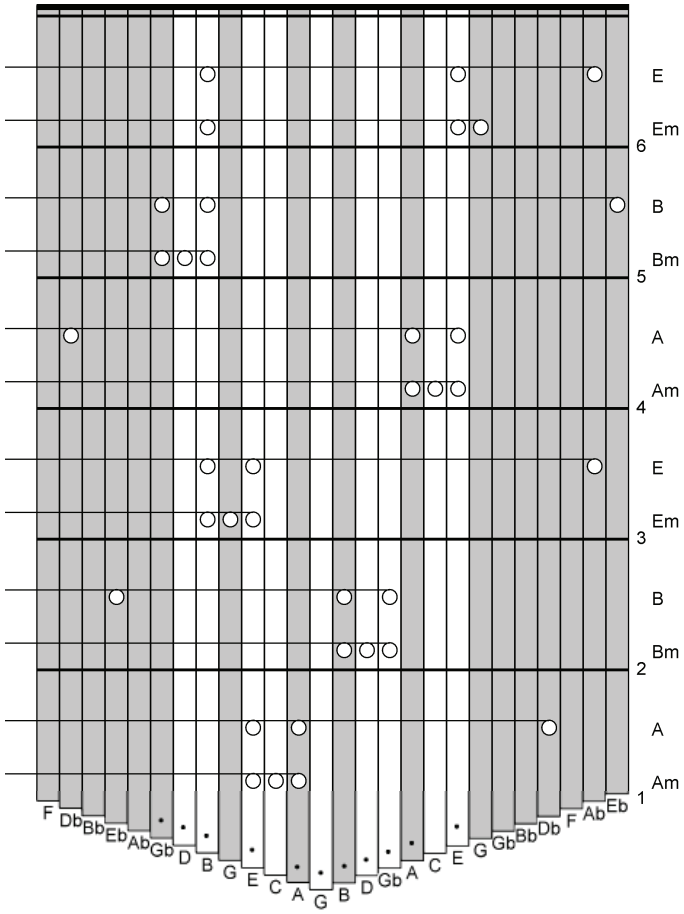
You can make all 12 major chords on the chromatic kalimba, but if you are using only the front notes, the major chords are G, C, and D. The major triads are made of three adjacent notes, the 1, the 3, and the 5 notes. To change a major chord to a minor chord, you flatten the 3rd to get a minor 3rd - for these front side major chords, you play the 1 and the 5 on the front and skip the major 3, but play the minor 3 on the back immediately under the unplayed major 3.

What about sharps? Front Side Minor Chords to Major Chords

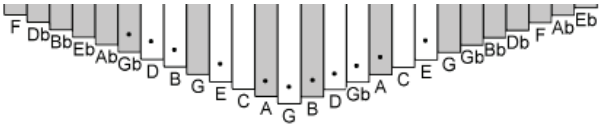
On the tablature, each of the back notes is labeled as a flat because it is convenient to think of them as flats. Also it is convenient to play them as flats. You are playing a front side note with a dot on it (say A), and you want to play Ab - you just dip below and play the back note immediately behind A.

But of course, ever flatted note has another name as a sharp. Bb is A#, Eb is D#, Ab is G#, Db is C#. The front side note F# is (unfortunately) labeled as Gb in the tablature.

When going up a scale on the front notes, the notes alternate strictly left-right-left-right. When you start adding flats, the flat on the back will replace a note on the front, but will still be on the right or left as the unplayed front side note is, so the strict left-right alternation is still maintained.



You can make all 12 minor chords on the chromatic kalimba, but the three minor chords that are made using just front notes are Am, Bm, and Em. A minor triad consists of a 1, a minor 3 (ie, a flattened 3rd), and a 5, and these notes will be adjacent on the front for these three chords. To make A, B, or E (major), we need to sharpen the 3rd. To sharpen a front note (that isn't B or F#) you need to play a back note on the opposite (left to right) side of the kalimba.


F
Db
Bb
Eb
Ab
Gb
D
B
G
E
C
A
G
B
D
Gb
A
C
E
G
Gb
Bb
Db
F
Ab
Eb

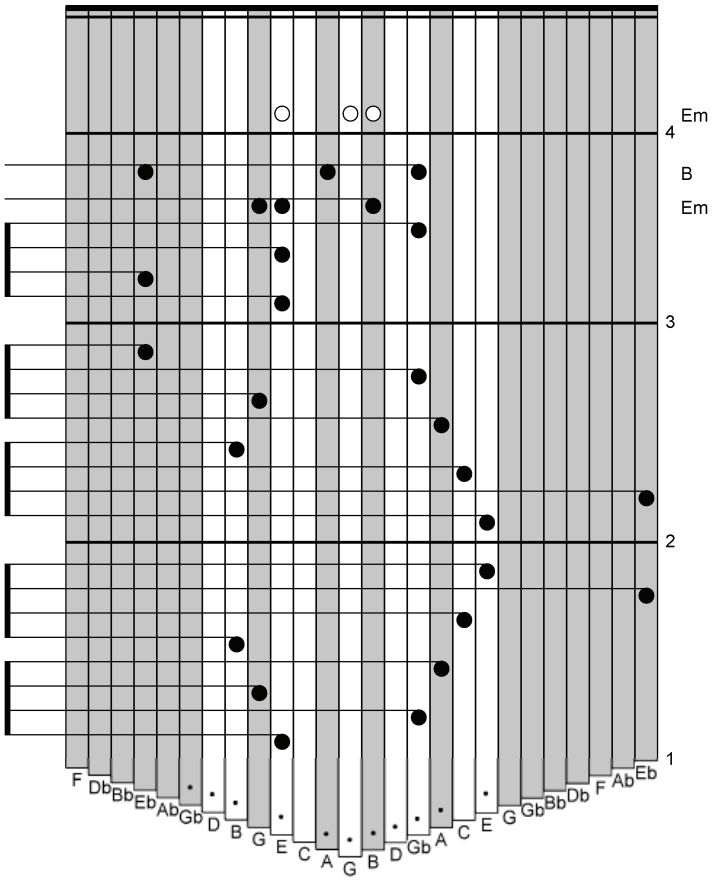
D# or Eb - Perhaps the easiest to use of the back notes.

The back note D# (or Eb) is one of the easiest chromatic notes to use because it sits by itself. You can see that by looking at the dots on the front tines - E has a dot, but lower neighbor C and upper nightbor G do not.

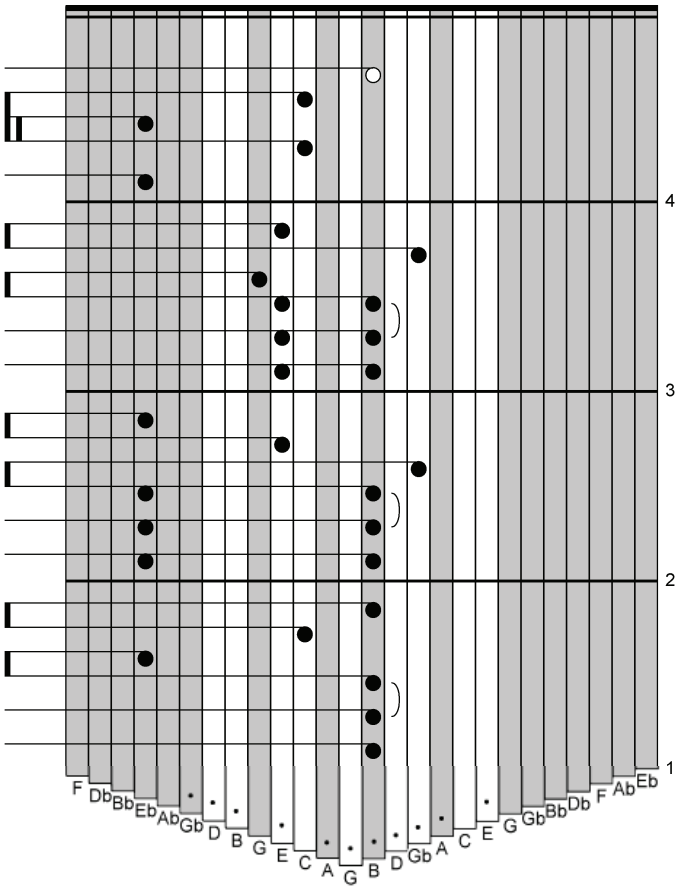
The front notes on the Chromatic Kalimba are in the key of G major, but if you start on E and go up the scale: E F# G A B C D E, you get an E minor scale. This is because E is the relative minor to G major - the E minor and the G major scales have the same notes in them. To a point.

There are actually several different types of minor scales, and the E minor scale mentioned above, using only front notes, is the natural minor scale. The harmonic minor scale is a very common minor scale that is not accessible to the diatonic kalimba, but requires at least one of the back notes because it has a raised 7th (ie, D# in the key of E minor). So, just by replacing the D with a D#, just by using that one back note, we are able to greatly expand what the kalimba is capable of. (Middle Eastern Tuning, an alternative tuning for the Alto kalimba, is made by raising the two D tines to D# - hence, just by playing the back D# instead of the front D natural opens up the chromatic kalimba to songs like Hava Nagila that are played on the Middle Eastern Tuned kalimba.)

Below left is the E harmonic minor scale. As the Eb is considered D#, there are three notes in a row on the same side: C (front), D# (back), and E (front), all on the left in the lower octave and all on the right in the upper octave. Below right is the first line of *Hava Nagila.*



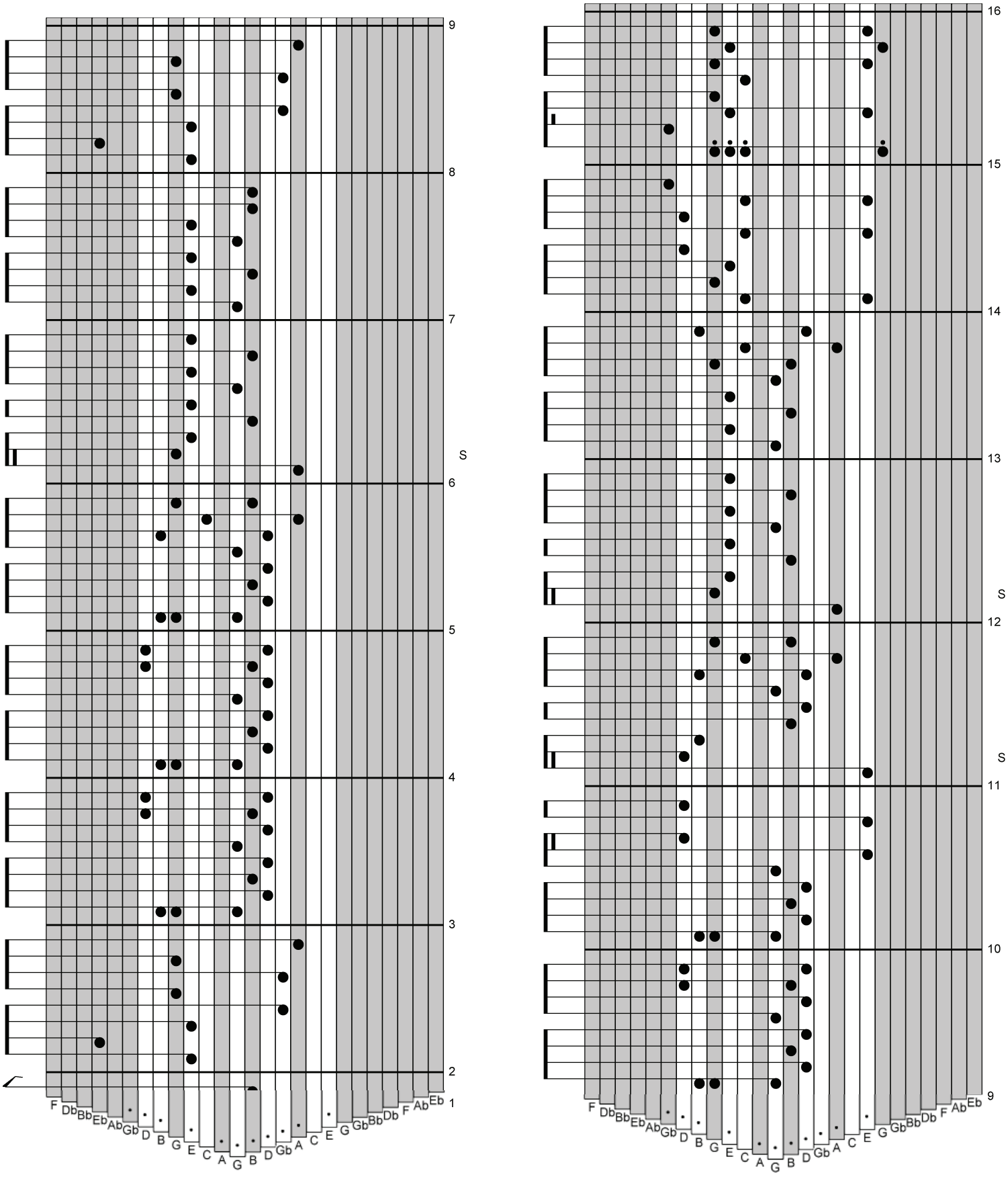
The E harmonic minor scale on the chromatic kalimba uses a D# from the back tines. Why? At the end of this exercise we make a harmonic cadence with Em, B (major) and Em chords, and the D# is the major 3rd of the B major chord. That is what this scale is about!



Middle Eastern tunes such as Hava Nagila can be played on this scale. Note that the front D notes are never played! The full tablature for this song (but in Middle Eastern tuning with D# on front) is available for free. Search the web for "hava nagila kalimba tablature".

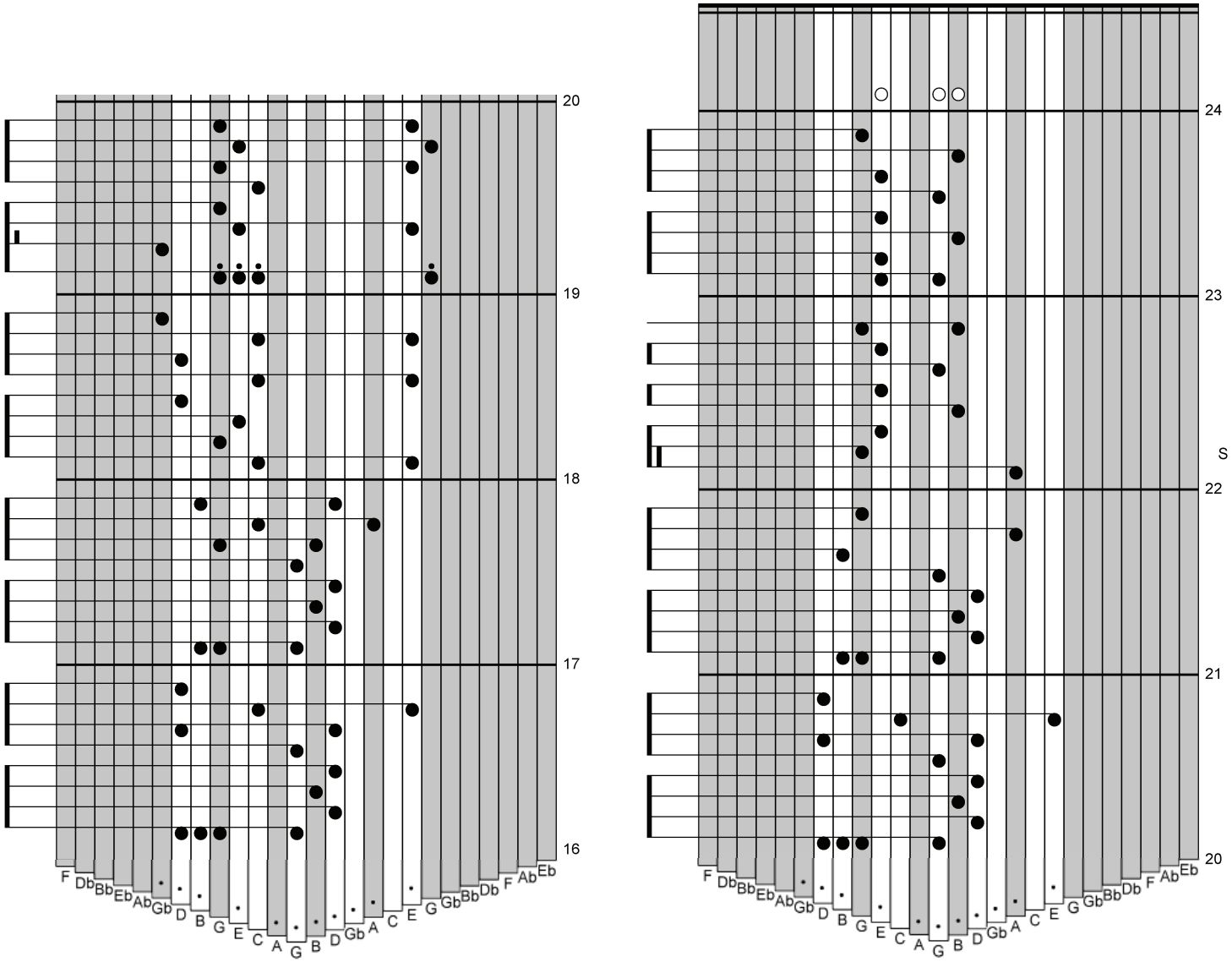
El Condor Pasa - Using D#

This classic Andean song made famous by Paul Simon uses the D# only twice! An easy dip into the chromatic ocean of possibility.



El Condor Pasa - (continued)

The second part of El Condor Pasa does not use any of the back notes. While this is an easy piece as far as the back notes go, it is actually a bit challenging on the front side, using both melody and accompaniment. If you have difficulty following this piece, you may want to invest some time improving your Alto kalimba skills. The Alto Hymnal and the Classical Alto books start out with simple melody-only arrangements and then progress to more complicated but still diatonic arrangements. The African American Spirituals book and the Kalimba Americana download have both melody-only and also advanced arrangements with full accompaniment. Any of these books or downloads, played over the course of weeks or months, will give you the skills you need to follow multi-strand arrangements such as El Condor Pasa.

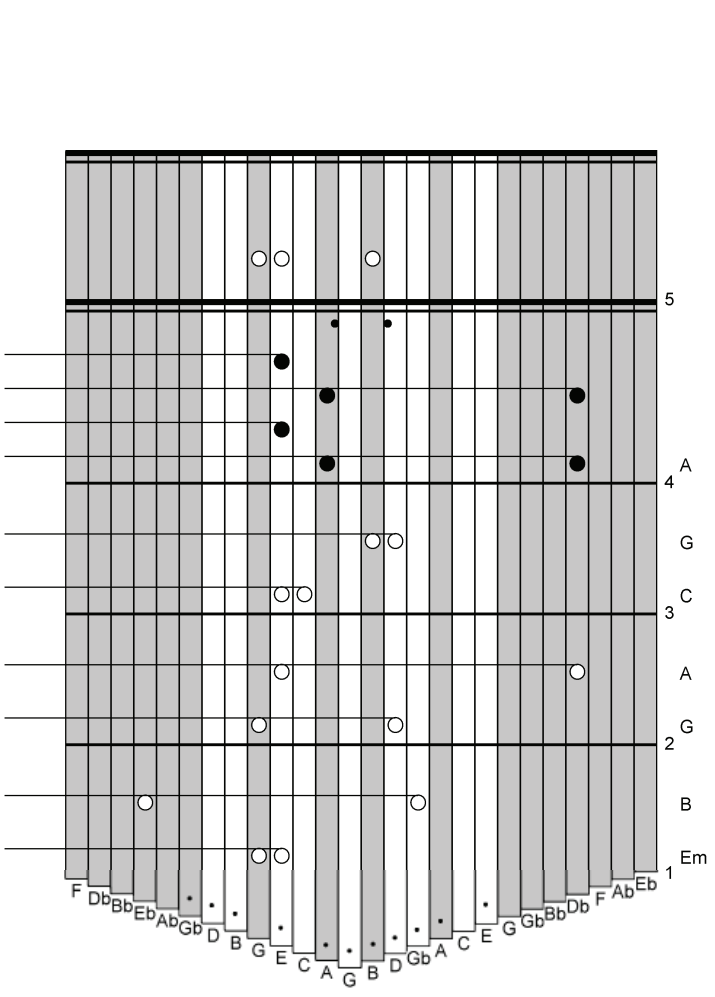


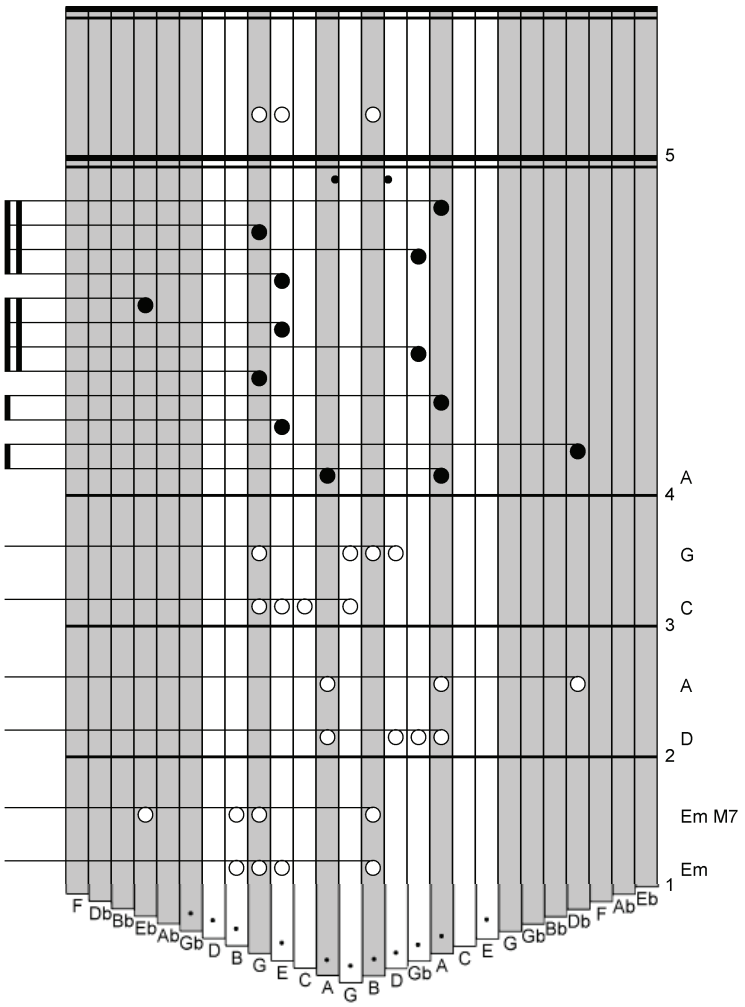
Descending Minor Cliche

The descending minor cliche is a harmonic structure built around a chromatically descending melodic line. In the key of E minor, that line is E, Eb (= D#), D, Db (= C#), C. If this sounds a bit like *Stairway to Heaven,* that would be because *Stairway to Heaven* uses the descending harmonic cliche. In a further blatant reference to popular music, the harmonic cadence of C, G, A (A major, using the Db = C# on the back) is reminiscent of Radio Head's music. The phrase ends with an accelerating melodic riff that starts by outlining the A major chord, and ends by taking us back to the E minor chord.

Anyway, these harmonic elements are free for the taking, because chord progressions cannot be copyrighted.

Redo words as we included a simpler one first - also, non-unique chords, and extend the chromatic line down!

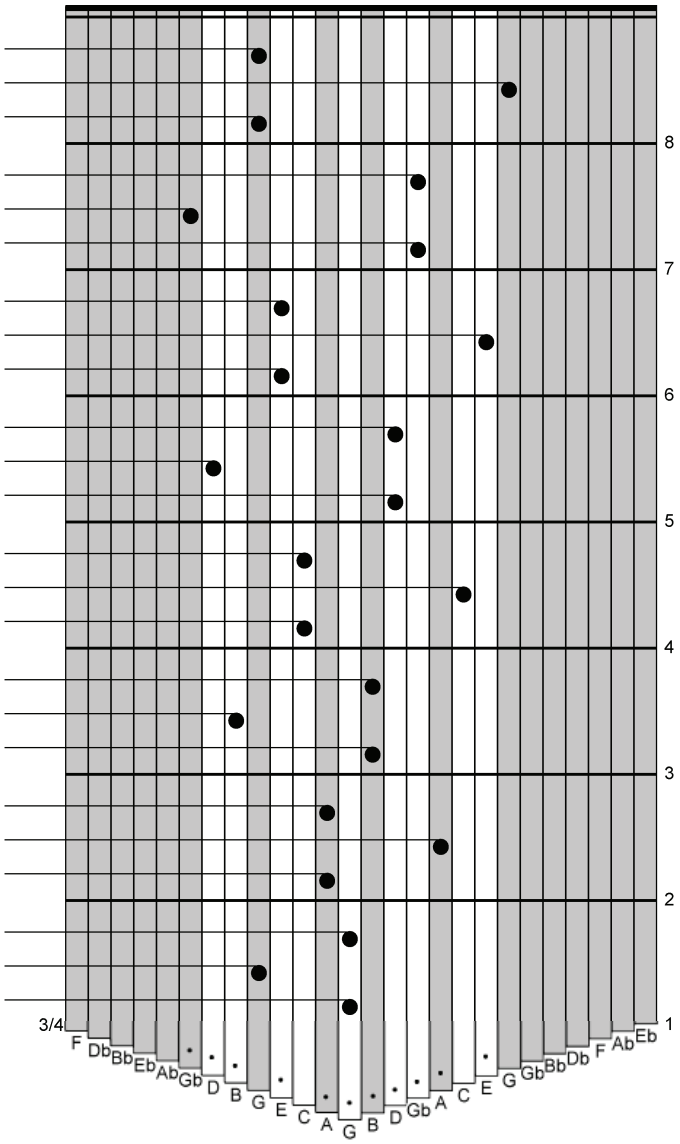




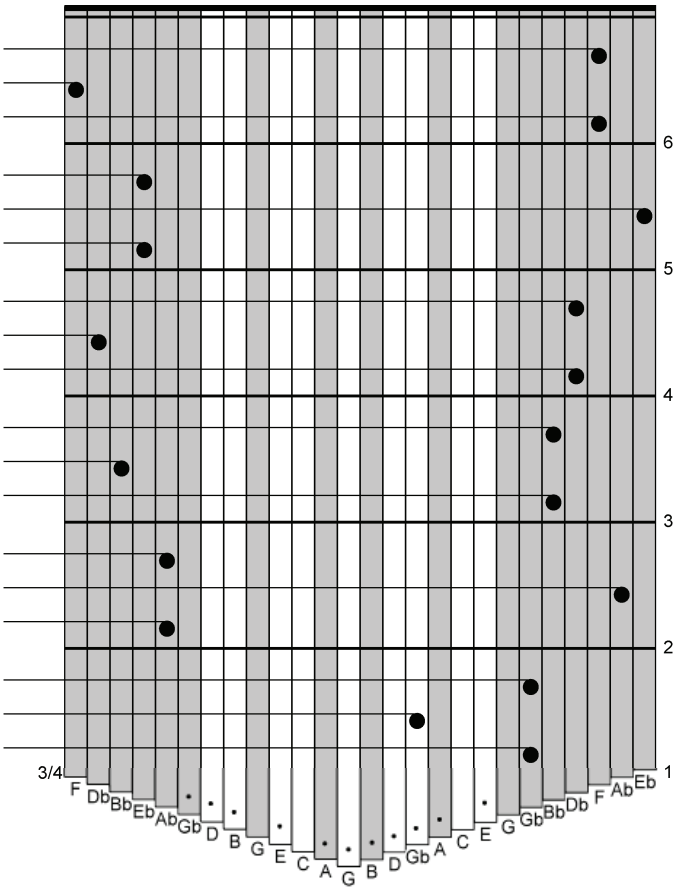
Octaves are on Opposite Sides (in a Left-Right sense of "opposite")

Octaves are important intervals to learn. On the kalimba, if a note is on the front right, another note of the same letter name but one octave higher will lie on the front left, a good deal further out to the left. If a note is on the front left, another note one octave higher will be on the front right. This holds until the octave note "jumps off the edge" of the kalimba. It also holds for the back notes, with the exception of the lowest note on the instrument (F#) which breaks this logic.

This important consequence of this aspect of the kalimba's note layout is that you can accompany yourself by playing a low note or chord on one side (left or right) and melody notes an octave higher on the opposite site (right or left). As both melody notes and accompaniment notes will change among both left and right side notes, this is an odd division of labor - both left and right thumbs change back and forth between playing melody and accompaniment almost on a note-by-note basis.



Front side octaves: *If a note is on the front, a note an octave higher is also on the front, but on the opposite side, jumping from left to right or from right to left.*



Backside octaves: *If a note is on the back, a note an octave higher is also on the back, but on the opposite side, jumping from left to right or from right to left.*

There is one exception: there is a low F# on the back behind the low G, while the two higher F# notes are on the front. This defect in logic is not present in the C-tuned version of this instrument.