Mbira

The **mbira** (pronounced *m-BEER-ra* , IPA *(ə)mˈbɪərə*) is an African musical instrument consisting of a wooden board (often fitted with a resonator) with attached staggered metal tines, played by holding the instrument in the hands and plucking the tines with the thumbs. The mbira is usually classified as part of the lamellaphone family and part of the idiophone family of musical instruments.

Members of this broad family of instruments are known by a wide variety of names. In the Caribbean Islands the mbira is also known as the **kalimba**, and a bass version the *marímbula*.

Both Joseph H. Howard, owner of the largest collection of drums and ancillary folk instruments in the Americas, and Nigerian drummer Babatunde Olatunji argue that the mbira is thoroughly African, being found only in areas populated by Africans or their descendants.[1] In Eastern and Southern Africa, there are many kinds of mbira, often accompanied by the hosho, a percussion instrument. The mbira was reported to be used in Okpuje, Nsukka area of the south eastern part of Nigeria in the early 1900s. It is a particularly common musical instrument of the Democratic Republic of Congo and the Shona people of Zimbabwe. It is also often an important instrument to be played at religious ceremonies, weddings, and other social gatherings.

Mbira came to prominence after the worldwide stage performance and recordings of Thomas Mapfumo on the 1980s, whose music is based on and includes the mbira;[2] the work of Dumisani Maraire, who brought marimba and karimba music to the American Pacific Northwest; Ephat Mujuru, who was one of the pioneer teachers of mbira in the US; as well as the writings and recordings of Zimbabwean musicians made by Paul Berliner. Commercially produced mbiras were exported from South Africa by ethnomusicologist Hugh Tracey from the 1950s onward, popularizing the instrument outside Africa.

Mbira

Mbira dzavadzimu

Other instrument	
Other names	Thumb piano
Classification	Lamellophone, Plucked Idiophone
Hornbostel –Sachs classification	122.1 (Plucked idiophone)
Timbre	pure, focused
Volume	low
Attack	fast
Decay	slow
Playing range	
Varies, see Tuning low to medium	
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History


A Zimbabwean *mbira dza vadzimu*

Various kinds of plucked idiophones and lamellaphones have existed in Africa for thousands of years. The tines were originally made of bamboo but over the years metal keys have been developed. The *mbira* appears to have been invented twice in Africa: a wood or bamboo-tined instrument appeared on the west coast of Africa about 3,000 years ago, and metal-tined lamellophones appeared in the Zambezi River valley around 1,300 years ago.[3] These metal-tined instruments traveled all across the continent, becoming popular among the Shona of Zimbabwe (from which the word mbira comes) and other indigenous groups in Zimbabwe and Mozambique.[4] The mbira differentiated in its physical form and social uses as it spread. Kalimba-like instruments came to exist from the northern reaches of North Africa to the southern extent of the Kalahari Desert, and from the east coast to the west coast, though many or most groups of people in Africa did not possess mbiras. There were thousands of different tunings, different note layouts, and different instrument designs, but there is a hypothetical tuning and note layout of the original metal-tined instrument from 1,300 years ago.

In the mid 1950s the mbira was the basis for the development of the *kalimba*, a westernized version designed and marketed by the ethnomusicologist Hugh Tracey, leading to a great expansion of its distribution outside Africa.

Acoustics

Lamellophones are instruments which have little tines, or "lamellae", which are played by plucking. Unlike stringed instruments or air-column instruments like flutes, the overtones of a plucked lamella are inharmonic, giving the mbira a characteristic sound.[5] The inharmonic overtones are strongest in the attack and die out rather quickly, leaving an almost pure tone.

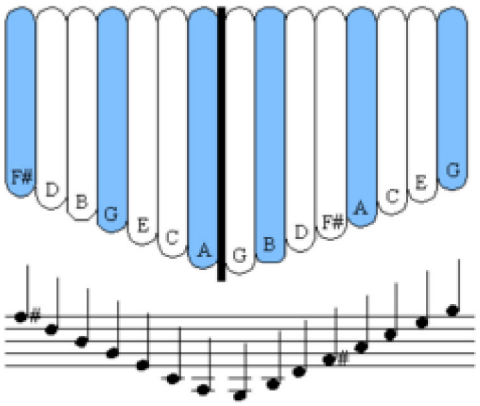
The note arrangement of some mbira (e.g. the kalimba and the nyunga nyunga) possesses the notes in the scale ascending on the tines from the center outward in an alternating right-left fashion, results in chords being made by adjacent tines. When any tine is plucked, the adjacent tines also vibrate, and these harmonizing secondary vibrations serve a similar role to the harmonic overtones of a string instrument—they increase the harmonic complexity of an individual note.

This left-right alternating arrangement is not true for the mbira dzavadzimu, where the notes are arranged with the lowest notes on each register located toward the center of the mbira and ascend as you move outwards. There are notable breaks in this linear progression however that are consistent across all mbira dzavadzimu.

Rhythm

Mbira music, like much of the sub-Saharan African music traditions is based on cross-rhythm. An example from the kushaura part of the traditional mbira piece "Nhema Musasa" is given by David Peñalosa, who observes that the left hand plays the ostinato "bass line," while the right hand plays the upper melody. The composite melody is an embellishment of the 3:2 cross-rhythm (also known as a hemiola).[6]

Tuning



Tuning chart for the Tracey 15-note alto kalimba.

Tunings vary from family to family referring to relative interval relationships and not to absolute pitches. The most common tuning is Nyamaropa, similar to the western Mixolydian mode. Names may also vary between different families; Garikayi Tirikoti has developed a "mbira orchestra" that has seven different tunings, each starting on a different interval of the same seven-note scale, where it is possible to play all instruments in a single performance. The seven tunings that Garikayi uses are: Bangidza, Nyabango, Nhemamusasa, Chakwi, Taireva, Mahororo, and Mavembe (all of which are also names of traditional songs save for Mavembe and Nyabango). The closest to what is commonly named "Nyamaropa" is his "Nhemamusasa" tuning.

Many players, including *griot* clans — West African storytellers and musicians — have their own idiosyncratic tunings. Most of the time the instrument is played solo and tuning is not as critical as when playing with other musicians. But the tuning can be changed by adjusting the length of the metal tines inward or outward.

Historically, mbira tunings have not mapped exactly onto Western scales; it is not unusual for a seven-note sequence on a mbira to be "stretched" over a greater range of frequencies than a Western octave and for the intervals between notes to be different from those in a Western scale. Tunings have often been idiosyncratic with variations over time and from one player to another. A mbira key produces a rich complex of overtones that varies from one instrument to another depending on its maker's intentions and accidents of fabrication, such that some instruments simply sound better when some notes of a familiar tuning are pushed. With the increased popularity of the mbira in North America, Europe, and Japan in recent decades, Zimbabwean mbira makers have tended to tune their instruments more uniformly for export, but much variation is still found among mbira in their homeland.

Most Western instruments have a simple linear visual mapping from the instrument to the pitch which is played: on a piano, the further left, the lower the note, and higher notes are to the right. String instruments have a similar mapping—the further up the neck, the lower the pitch—but this progression is realized independently on each string. Most Western string instruments have a similar progression from one string to the next: each violin string, for example, is a perfect 5th higher than the previous one. Such consistent spatial mappings from the instrument to the pitches it plays promotes the development of intuition and aids in the learning of the instrument and even the ability to improvise or play by ear.

It is common on African mbira and other lamellophones to have the lowest notes in the center with higher notes to the far left and the far right—this is an ergonomic nicety, in that the thumb can pivot such that all the tines are easy to reach. However, traditional African tunings use notes that do not lie on the grid of the Western tempered scale, and traditional kalimba note layouts are often idiosyncratic, sometimes with adjacent tines making part of a scale, but then an odd note thrown in that defies the pattern.

Specific tunings

Common names for tunings are:

- **Nyamaropa** (Mixolydian mode) (considered the oldest and most representative in Shona culture) It emphasizes togetherness through music, creating polyrhythms through having two Mbira players at once, having singing styles accompany an *Mbira* such as *Huro* (High emotional notes that are at the top of a singers range) & *Mahon'era* (a soft breathy voice at the bottom of the singers range) or both elements. A single Mbira is considered incomplete for a performance.[7]
  0:00 MENU
- **Dambatsoko** (Ionian mode), played by the Mujuru family. The name refers to their ancestral burial grounds.
  0:00 MENU
- **Dongonda**, usually a Nyamaropa tuned mbira with the right side notes the same octave as the left (an octave lower than usual).
- **Katsanzaira** (Dorian mode), the highest pitch of the traditional mbira tunings. The name means "the gentle rain before the storm hits".
  0:00 MENU
- **Mavembe** (also: Gandanga) (Phrygian mode), Sekuru Gora claims to have invented this tuning at a funeral ceremony. The mourners were singing a familiar song with an unfamiliar melody and he went outside the hut and tuned his mbira to match the vocal lines. Other mbira players dispute that he invented it.
  0:00 MENU
- **Nemakonde** (Phrygian mode), same musical relationship as the mavembe, but the nemakonde tuning is a very low pitched version.
  0:00 MENU
- **Saungweme** (flattened whole tone, approaching 7 tone equal temperament).
  0:00 MENU

Variants

Mbira dzavadzimu

In Shona music, the **mbira dzavadzimu** ("*voice of the ancestors*", national instrument of Zimbabwe[8]) is a musical instrument that has been played by the Shona people of Zimbabwe for thousands of years. The *mbira dzavadzimu* is frequently played at religious ceremonies and social gatherings called *mabira* (sing. "*bira*").

A typical *mbira dzavadzimu* consists of between 22 and 28 keys constructed from hot- or cold-forged metal affixed to a hardwood soundboard (*gwariva*) in three different registers—two on the left, one on the right.

While playing, the little finger of the right hand is placed through a hole in the bottom right corner of the soundboard, stabilizing the instrument and leaving thumb and index finger of the right hand open to stroke the keys in the right register from above (thumb) and below (index finger). The fingers of the left hand stabilize the left side of the instrument, with most fingers reaching behind the instrument. Both registers on the left side of the instrument are played with the left thumb. Some mbira possess an extra key in the upper left register which is hit from below by the left index finger.

Bottle caps, shells, or other objects ("*machachara*"[9]) are often affixed to the soundboard to create a buzzing sound when the instrument is played. In a traditional setting, this sound is considered extremely important, as it is believed to attract ancestral spirits.

Mbira dzavadzimu in a deze.

During a public performance, an *mbira dzavadzimu* is frequently placed in a *deze* (calabash resonator) to amplify its sound.

The *mbira dza vadzimu* is very significant in Shona religion and culture, considered a sacred instrument by the Shona people. It is usually played to facilitate communication with ancestral spirits, bringing the spirit of the dead back on its homestead.[10] Within the Shona tradition, the mbira may be played with paired performers in which the *kushaura*, the caller, leads the performed piece as the *kutsinhira*, the responder, "interlocks" a subsequent part.[11] The ritual is known as the *Bira*. During these all-night ceremonies, people call upon the spirits to answer questions. The variations of notes in an *Mbira* piece aid the participants in going into trance, which in Shona culture aids the spirits in taking over the participant's body.[12]

Sanza

Albert Chimedza, director of the Mbira Centre in Harare, has estimated that "there are at most ten thousand people in the world who play mbira."[2]

Mbira Nyunga Nyunga

The nyunga nyunga which normally has 15 keys, originated from Manicaland where it traditionally played the entertainment role during social gatherings and commemorations.[10] Jeke (Jack) Tapera introduced the **mbira nyunga nyunga** in the 1960s from Tete province of Mozambique to Kwanongoma College of African music (now United College of Music) in Bulawayo. Two keys were then added to make fifteen (Chirimumimba, 2007), in two rows. The mbira nyunga nyunga is similar in construction to the mbira dzavadzimu, but has no hole in the soundboard. Key pitch radiates out from the center, rather than from left to right.

Zimbabwe's Dumisani Maraire originated mbira nyunga nyunga number notation. The upper row keys (from left) are keys 2, 4, 6, 8, 10, 12, and 14 while the bottom row keys are notated as 1, 3, 5, 7, 9, 11, 13, and 15. Maraire brought awareness of this instrument to the United States when he came to the University of Washington as a visiting artist from 1968–1972.

Recently a Midlands State University (Gweru, Zimbabwe) lecturer in the department of music and musicology has suggested a letter notation; the upper keys as (from first left upper key) E, D, C, F, C, D, and E and the lower or bottom keys as (from the first lower key) A, G, F, A, F, C, D, and E. But the Maraire number notation has remained the internationally accepted system (Chirimumimba, 2007).

Mark Holdaway of Kalimba Magic has introduced a graphic form of tablature for the karimba, and traditional karimba tunes as well as modern songs and new compositions and exercises are available in this tablature.

Njari mbira

Njani mbira has 30 to 32 keys and was also originated from Zimbabwe particularly Masvingo and Makonde.[10]

Nhare

The nhare has 23 to 24 keys and was originated from Zimbabwe. In the Zimbabwean tradition, nhare was used for rituals of communicating with Musikavanhu or Nyadenga (God).[10]

Mbira matepe

Mbira matepe which has 26 keys originated from along the borders of Zimbabwe and Mozambique.[10]

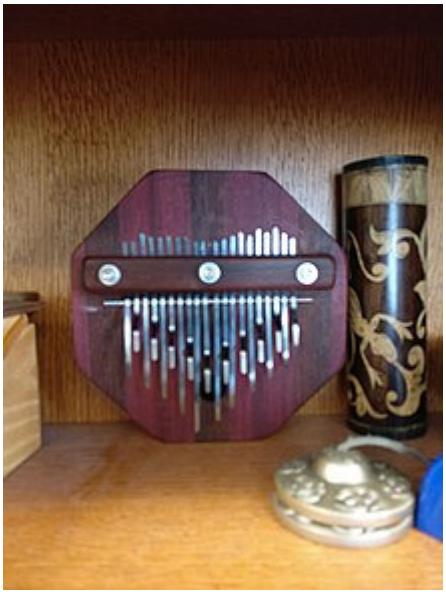
Tom

Tom (also thoom, thom or toom) popular in Gambela Region, in Western Ethiopia on the border of South Sudan.

Outside Africa

Hugh Tracey treble kalimba

Hugh Tracey, an English ethnomusicologist who moved to Africa in 1920, spent several years from the 1920s through the 1950s traveling about in rural Africa (i.e., as far away as he could get from western musical influences such as radio, eastern-influenced bands, and Christian missionaries) where he recorded traditional music and documented the tunings and note layouts of the different kalimbas. Tracey later founded the company African Musical Instruments and started building a mbira variant in Roodepoort, South Africa, which he called the *kalimba*; he began exporting them around the world in 1954. The name *kalimb*a is a Bantu word which means "little music", and is similar to the word *karimba*, a type of mbira. The note layout and tuning were not traditional; rather, the kalimbas were tuned diatonically in the key of G, with adjacent notes on the scale sitting on opposite sides of the kalimba. These were the first mbira to be commercially exported from Africa. In the early 1960s, Tracey secured an initial order of 10,000 kalimbas with Creative Playthings of Princeton, New Jersey, a company which designed and distributed toys and furniture.



An octagonal mbira of high craftsmanship which spans two octaves.

The Hugh Tracey kalimbas are tuned diatonically in the key of G. The arrangement of the notes on the Hugh Tracey kalimba borrows from the typical scheme with the lowest notes in the center and the upper notes on the left and the right, but a regular note layout is used, with the notes in the ascending scale alternating strictly right-left and going outwards towards the two sides. With this bidirectional note layout, it seems that all intuition from linearly mapped instruments goes out the window. This arrangement requires that the kalimba player develop a new intuition, but that new intuition is not as hard to come by as the more idiosyncratic note layouts of the traditional African lamellophones.

The diatonic western kalimba tuning which Tracey used was practical for a worldwide instrument—with hundreds of African kalimba tunings, the chosen Western standard would maximize the number of people who would immediately connect with the kalimba. The beauty of this note arrangement, with notes going up the scale in a right-left-right-left progression, is that modal 1-3-5 or 1-3-5-7 chords are made by playing adjacent tines and are trivial to learn and play. If chords are played in the lower octave, the same notes will appear on the opposite side of the kalimba in the upper octave, which makes it very easy to simultaneously play a melody in the upper octave and an accompanying harmony in the lower octave. So, the arrangement of notes on the Hugh Tracey kalimba (and on virtually any kalimba, as this note layout scheme has been adopted by virtually everyone who copies the instrument) makes some complex musical operations very simple.

Alternative tunings are possible, as the tines of most kalimbas are easily pushed in and out to sharpen or flatten their pitch. Some alternative tunings simply change the key of the kalimba, without changing the note layout scheme. Other alternative tunings move the kalimba to non-modal scales (such as Middle-Eastern scales). Each note of the kalimba can be tuned independently (unlike a guitar), so any scale, western or non-western, is possible, and traditional African scales are still accessible to this modern African instrument. Composer Georg Hajdu has tuned the Hugh Tracey alto kalimba to the chromatic steps of the Bohlen–Pierce scale in a piece called *Just Her—Jester—Gesture*. The Bohlen–Pierce scale subdivides the just twelfth into 13 steps.

The Chromatic Kalimba is also a fairly new instrument. There are a few different makers of the chromatic kalimba. One is the Hugh Tracey/AMI 2-octave kalimba which ranges from the G below middle C up to the G above the top line of the treble clef. The accidentals are mounted on the rear side of the kalimba as flats right under their adjacent parent note from the top. Recently, (2010) Aaron Chavez modelled an idea for the 4-octave chromatic kalimba utilizing octaves C2-C6; JBH Guitars is its original manufacturer. While kalimba initially meant the Hugh Tracey product, the name is now generic. Shortly after the Hugh Tracey kalimba started being sold around the world, artisans and craftspeople started copying or adapting the design. Several high quality kalimba makers exist around the world today: Lucinda Ellison, Andrew Masters, David Bellinger, Steve Catania, Luc DeCock, R. P. Collier, and Greg Trimble. Most kalimbas sold today are inexpensive copies made in third-world countries such as Pakistan or Indonesia.

Related instruments

Instruments related to or inspired by the mbira include:

- Array mbira, a modern invention consisting of as many as 150 tines configured in a special order based on the circle of fifths (see Isomorphic keyboard).
- Guitaret an electric lamellophone made by Hohner and invented by Ernst Zacharias, in 1963.
- Gravikord, is an electrified double harp that is a modern kora and kalimba hybrid, inspired by the cross rhythms of the mbira. It was invented in 1986 by Bob Grawi an American musician and artist. It is also tuned in the key of G major/E minor in an extended version of the Hugh Tracey kalimba tone layout with a range of 3 1/2 octaves. Music and playing techniques learned on this kalimba can be easily transferred and played on the Gravikord.

Signature Series Gravikord

Players

See also

- Music of Africa
- Polyrhythm

- Electric lamellophone
- Gravikord

Notes

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External links

- Mbira.org (http://mbira.org), "the non-profit organization devoted to Shona mbira music", based in Berkeley, California
- sympathetic-resonances.org (https://sympathetic-resonances.org). A free online tool for transcriptions of various mbira types, like Mbira dzavadzimu, Matepe or Karimba. Mbira pieces can be auditioned in the web browser, with audio loops synthesized from actual instrument samples.
- MbiraMagic.Com (http://mbiramagic.com), "Unlock the magic and share your mbira journey", based in Reading, England
- Mbira.co.zw (http://mbira.co.zw), "A community of mbira players, researchers, makers & lovers, for the enhancement of the Mbira, music & fashion. Mbira Transfiguration & Permanence", based in Harare, Zimbabwe