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## The Family of the Mbira

### THE EVIDENCE OF THE TUNING PLANS

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#### INTRODUCTION

About twelve major types of mbira are played at the present day by the peoples of the central and lower Zambezi valley and environs. I would like to present some evidence to show that, in this large part of Africa at least, all these types are related, and further that several lines of descent can be postulated which point back to one common progenitor.

The area in question (see map) comprises most of Rhodesia, central Moçambique, southern and eastern Zambia, together with parts of southern Malawi, southern Moçambique and northern Transvaal, or to put it more simply, much of the lower Zambezi basin, with a spill over towards the south.

The mbiras found in this area exhibit a great variety in appearance, manner of construction, tone quality and musical technique. Distribution maps could be drawn for each of these factors which would not reveal an overall relationship. However, if one focuses on one factor alone, namely the arrangement of the notes on the keyboard, or 'tuning plan', consistent relationships can be established, which also concord with African nomenclature. African musicians are completely decided on the names of the various types of mbiras. What is significant to them in this respect is not primarily the number of reeds, or keys, on the instru-

ment, the method of sound production or any other constructional feature, but the tuning plan. Most mbira tuning plans are more or less irregular, in the sense that the notes of the scale are not necessarily positioned next to each other, as they would be, for instance, on a piano or on most African xylophones. It is by tracing several significant 'irregular' tuning plans that we have been able to come to these conclusions.

Irregularities in tuning plans can be compared to non-functional components of material objects, such as decoration, which may be transmitted unchanged from one culture to another, the original function or symbolism becoming lost in the process. Tuning plans are generated by musical concepts or needs. Nevertheless, one generally finds that an mbira tuning plan is adopted lock, stock and barrel, whether or not its special characteristics fill the same need as in the music of the originating group. Some of the irregularities that we shall be following then become merely a vestigial historical trace that links a type of mbira with its antecedent, but does not necessarily have any significance in the music of the people using it.

I should add that I have been considerably assisted in my research by the ability to play most of the mbira types under discussion, and thus to form an idea of what is actually of

musical or motor-pattern significance, and what seems 'irregular' and should therefore be attributed to other sources, historical, social or personal. Secondly, I am not concerned with establishing a time scale, but rather a series of relationships among the mbiras of this area. On considering these relationships it becomes obvious that their development could only have occurred in one direction, from simple to more complex. One does not need to assume this to start with, although it is also, of course, a perfectly sound ethnographic principle. It has been seriously suggested to me by an ethnomusicologist, that the development took place in the other direction. On the basis of this evidence this seems to me impossible; however, we are trying to retrieve a historical process from the evidence of present-day artifacts, which is always a risky business.

Nevertheless what I have observed of present-day African musicians is a general tendency among leading musicians and instrument makers to add notes and increase the size of their mbiras. Many inventive variants of the basic tuning plans are produced in this way, a process similar to that which must have led up to the currently existing mbira types.

Similarly in the matter of the so-called 'Africanisation' of foreign musical traits, I have noticed that many musicians, on being exposed to a new foreign musical instrument, whether from another part of Africa, or Western, will immediately play it, applying motor, rhythmic or melodic patterns to it which they already know. They are keen to accept innovations in musical instruments, providing they are capable of expressing their own musical language. In common with musicians the world over, they are rarely interested in learning the original, foreign musical idiom of the instrument. This is why the *kalimba*, for instance, from the north side of the Zambezi, and the *karimba*, from the south side (roughly speaking), which are identical except in matter of size, can sound so completely different. Similarly, in organological terms, when a new type of mbira is adopted, the significant adoption is the tuning plan; other details of construction will usually continue to be based on those of the local mbira type, such as the shape and size of body, profile of the reeds, attachment of bridge, bar and backrest, method of effecting buzz-tone, and choice of resonating body.

Diagram 1 presents in simplified form the family relationships of the mbiras under discussion; their geographical distribution and supplementary description is shown in the map and its subtitles. Diagrams 2-4 present in graphic form the actual tuning plans on which this study is based. For present purposes we do not need to follow the steps in detail; readers who are interested may find it more fully described in Tracey (1972). Here it will be sufficient to point out the main points of similarity among the members of the three lines or families of mbiras.

#### THE FAMILY OF THE KALIMBA

The present-day *kalimba* is played over a wide area, mostly north of the Zambezi. Usually there are added notes, bent up to form an upper rank, or manual, in the manner of the Nsenga *kalimba* illustrated. On the south bank the *kalimbakarimba* name is retained, but the instrument is considerably enlarged, giving a foretaste of the further enlargements and transformations other south-bank mbiras have undergone. The original *kalimba* 'core' tuning plan is shown in black, to show how it remains embodied in the subsequent tuning plans of this family. The *njari*, already an independent instrument from the *kalimba*, makes its additions in its own way, the most significant being the enlargement of the bass section for the left thumb. The *njari huru*, or 'big njari', is just that — the bass section is further enlarged, and the right hand rank is extended by five more notes.

The *dipila* is included here tentatively, as I do not have conclusive evidence for its membership in the *kalimba* family. However, allowing for the fact that it is pentatonic, its tuning plan is strikingly similar to that of the *kalimba*. The black notes here represent the basic form of the instrument, as acknowledged by *dipila* players; the white notes are optional.

A note on the numbering system used — the numbers 1 to 7 indicate the seven notes of the heptatonic scales used on most of the mbiras in our area; 1 to 6, respectively, if the scale is hexatonic (for instance the *mbira dza vaNdau*, Diagram 4), and 1 to 5 for the only pentatonic instrument in the area, the *dipila*. That is, the heavy black lines are an octave apart, divided respectively into 5, 6 or 7 inter-

vals. This numbering system does not show tonal, intonational or musical importance of notes, but it is carried through all the diagrams to facilitate comparison between the different tuning plans.

#### THE FAMILY OF MBIRA DZAVADZIMU

The *mbira dzavadzimu* and *mbila deza*, probably the older members of this family, embody the *kalimba* core in the centre of their keyboard, completely intact but for the fact that it is left-right reversed. Again the black notes show the *kalimba* core. The major addition in these two instruments is the new low section for the left hand, in octaves below the 7-6-5-1 of the *kalimba* core. The note no. 4, whose irregular position was one of the sparks for this investigation, has been inserted here in yet a different position than the two positions found in the *karimba-njari* family already discussed. Note that in the original *kalimba* the note 4 does not exist, so musicians in a heptatonic tradition, faced with a hexatonic instrument, had to find a new place for the extra note. In the hexatonic Ndau mbira, of course, this note has never been added.

Taking the *mbira dzavadzimu* tuning plan now as our model, with its characteristic irregularity in the left hand, we can see that the *hera* and *nyonganyonga* both embody it as the basis of their own enlarged keyboards, the only difference being the shifting of note 3 away from its original isolated position. The transposition two octaves down of the right hand rank 1, 2, 3, etc in the *nyonganyonga* can probably be accounted for by the characteristic method of tuning these last two mbiras, the *hera* and *nyonganyonga*: the overtones of the deep notes, rather than the fundamentals, are taken as the significant tuning notes. Overtone and fundamental on an mbira reed are naturally about two octaves apart, so in point of fact this low right hand rank on the *nyonganyonga* sounds at the same pitch as that on its brother instrument, the *hera*.

A further link between the members of this family is that, to a greater extent than either of the other families, they are used for ritual purposes. The *mbira dzavadzimu* and *hera*, for instance, and to a lesser extent the *njari*, are an integral part of Shona religion.

#### THE FAMILY OF THE NDIMBA

This family differs from the others in that the reeds are largely arranged with the deep notes on the left and high notes on the right. Thus the inherent irregularity of the *kalimba*, which has been our guide, is largely destroyed. My argument for its inclusion in the *kalimba* family rests mainly on small pieces of evidence. The *kalimba* and the *ndimba* types are played in several of the same localities to the north of the Zambezi, with the indication that there is a progression from the first to the second; the *kalimba* is used by 'amateurs', the *ndimba* by 'professionals'. Further, the pitches of the notes used are the same in both instruments. It seems entirely probable that the *ndimba* results from a deliberate change-over from the *kalimba*, although one must allow the possibility of the reverse process. The evidence of xylophone tuning plans, such as that of the Lozi *silimba*, may have something to add here. It is somewhat similar to the *ndimba*.

The hexatonic *mbira dzavaNdau*, in its simplest form, that which underlies the tuning plans of all the others, is similar to the *ndimba*. The lower rank is actually identical, which is obscured by the present numbering system, based as it is only on the number of intervals in the octave. The upper left rank is also similar in function and placing. The varieties of the *mbira dzavaNdau* are many. Three of the most widespread are shown here, the highland, or Tomboji, and the Danda types, which extend both ranks to the right, and add a high third rank on the left, and the Uteve and the similar Mashanga type, which adds its third rank downwards. The Ndau mbiras are the only ones of my acquaintance with three ranks of reeds.

The *Mana embudzi*, or 'goat's teeth', seems to be a heptatonic adaptation of the *ndimba* type, with added notes to allow it to play in the full-sounding Shona/Sena style, although I do not have sufficient evidence to be decided on this.

#### CONCLUSION

If the relationships shown by these tuning plans are accepted, they may help to throw more light on the early relations between the peoples of this large part of Africa, already

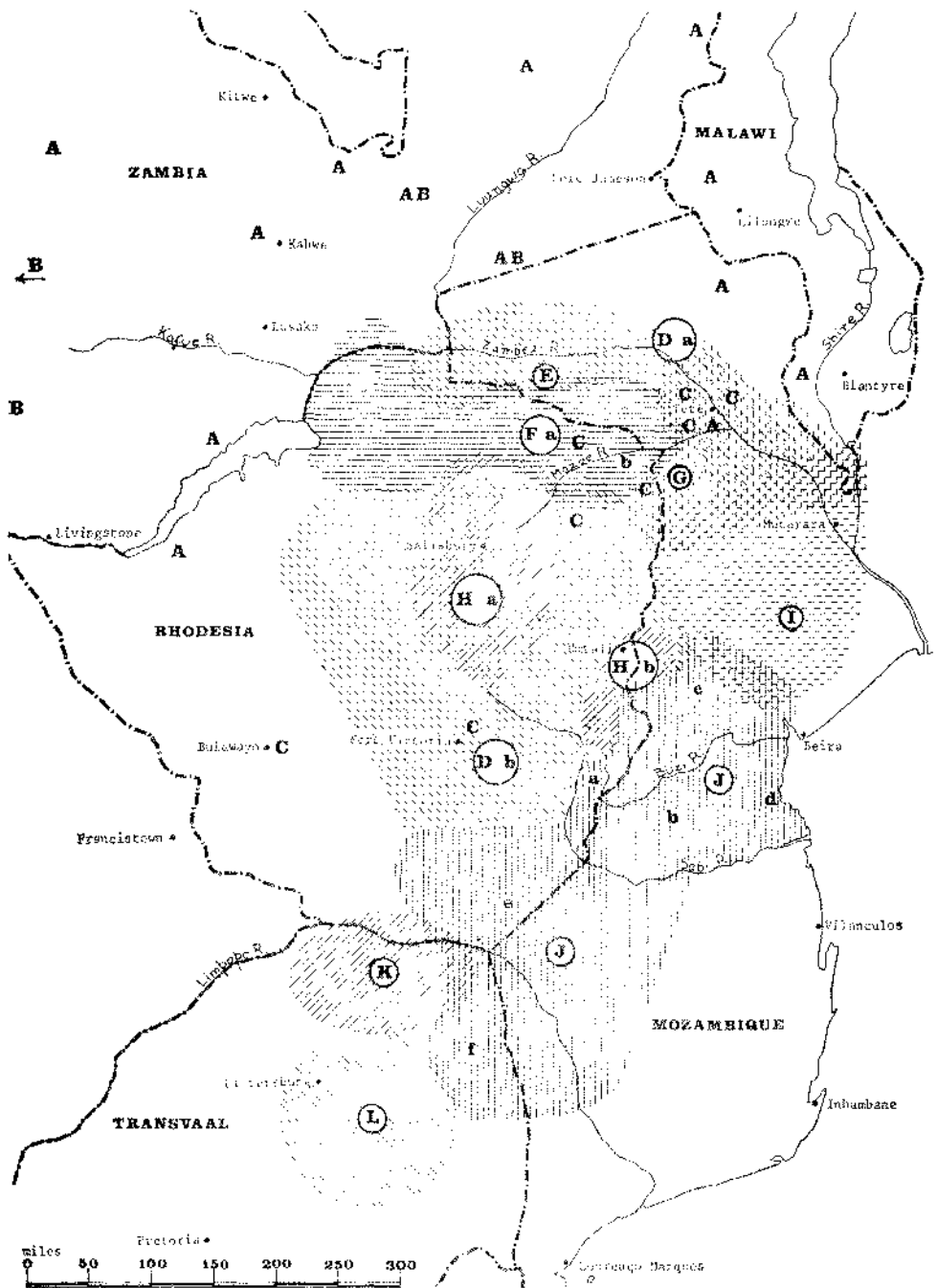
increasingly illuminated by Rhodesian and other ethno-historians. The least they show is that trading or cultural relations in this area must have been relatively stable for a long period of time. There is no mbira type in this area which cannot be connected, with varying degrees of certitude, to one particular seminal

type, the eight-note *kalimba*, which seems to occupy the position nearest the centre. Others will be able to offer dates with more exactitude, but on the evidence of its family, I do not see how the *kalimba* can be less than about 1 000 years old. It may indeed be the original African mbira.

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# THE DISTRIBUTION OF SOME OF THE DESCENDANTS OF THE KALIMBA.



## KEY TO MAP

### A KALIMBA TYPE

Nyungwe, Cewa, Ngoni, Tumbuka, Nsenga, Swaka, Kaonde, etc. Also called kankobebe, kankowela et sim. (Bisa, Lala, Lenje), nsansi, sansi, (Cewa, Ngoni, Nyungwe). Possibly also Tonga kankobela and Lunda kalendi.

### B NDIMBA TYPE

Nsenga, also called ndandi (Lala), kangombio (Lozi), kathandi (Mbunda).

### C KARIMBA

Nyungwe, Chikunda, Sena/Tonga, Korekore, Zezuru, Karanga. Also called kansansi, chisansi, nsansi, sansi, shanzhe ye psviro (Nyungwe).

### D NJARI

(a) Valley type. Nyungwe, Sena/Tonga.

(b) Highland type. Njanja (known as marimba), Karanga, Hera, Bocha, Garwe, Manyika, Zezuru, Nohwe, Shangwe, etc. Sometimes known as njari dza maNjanja, from the Njanja, its introducers. An mbira called deza, probably the njari type, has been recorded among the Valley Tonga.

### E NJARI HURU

Chikunda

### F HERA

(a) Korekore, Tavara, Nyungwe.

(b) Matepe (Sena/Tonga), madhebehe (Korekore/Budya).

### G MANA EMBUDZI

Sena/Tonga, Nyungwe, Sena. Also called mbira dza va Tonga, nsansi, sansi.

### H MBIRA DZA VADZIMU

(a) Zezuru, formerly also played by the Karanga (mbira dze midzimu).

(b) Mbira huru, matepe, very few survivors of the Manyika type.

### I NYONGANYONGA

Barwe, Gorongozi, Sena. Also called marimba.

### J MBIRA DZA VANDAU

(a) Highland, or Tomboji. (b) Danda. (c) Utee. (d) Mashanga. (e) Hlungwe (called timbila).

(f) Shangana (called mbira, marimba, timbila).

### K MBILA DEZA

Lemba, Venda. Four types — scale regular/irregular, bass left/right?

### L DIPILA

Pedi, Northern Sotho.

This map should be taken only as indication of what type of mbira is most likely to be found in any area. There are few hard and fast boundary lines. Individual examples of mbiras are often found far from the areas marked. The most distinct boundaries are those between language groups, such as Shona to Sena (njari to mana embudzi, nyonganyonga) or Shona to Ndau (njari, mbira dza vadzinu to mbira dza vaNdau). There is also a certain amount of speculation involved; where I have no personal experience of the boundaries I have assumed that they continue along the lines of the language division, as in Mitchell and Fortune's map "African tribes and languages of the Federation of Rhodesia and Nyasaland", Director of Federal Surveys, Salisbury 1964.

In particular I do not know the exact boundaries of the Venda and Pedi types (K, L), the southern boundary of the mbira dza vaNdau type (J), the western boundary of the hera (F), whether the valley type of njari is played by all the Nyungwe and Chikunda peoples, as I have shown, and the mutual boundaries of the njari, mana embudzi and nyonganyonga (D a, G, I) which are not very clear on the ground — in this area it is quite common to find up to three different types being played in the same place, often with a shared repertoire, although not necessarily playing together.

The karimba (C) turns up sporadically over a large area; I have only marked those where it seems to be widely popular. The C at Bulawayo refers to the type of karimba made and taught there at the Kwanongoma College of African Music, which was originally based on a karimba from Mrewa district, 50 miles east of Salisbury.

Finally, as my information from Zambia and Malawi is largely from secondary sources I have only put one symbol in at the approximate centre of each language area. The kalimba area to the north of the Zambezi is probably much more extensive than shown.

Diagram 1

THE FAMILY OF THE KALIMBA

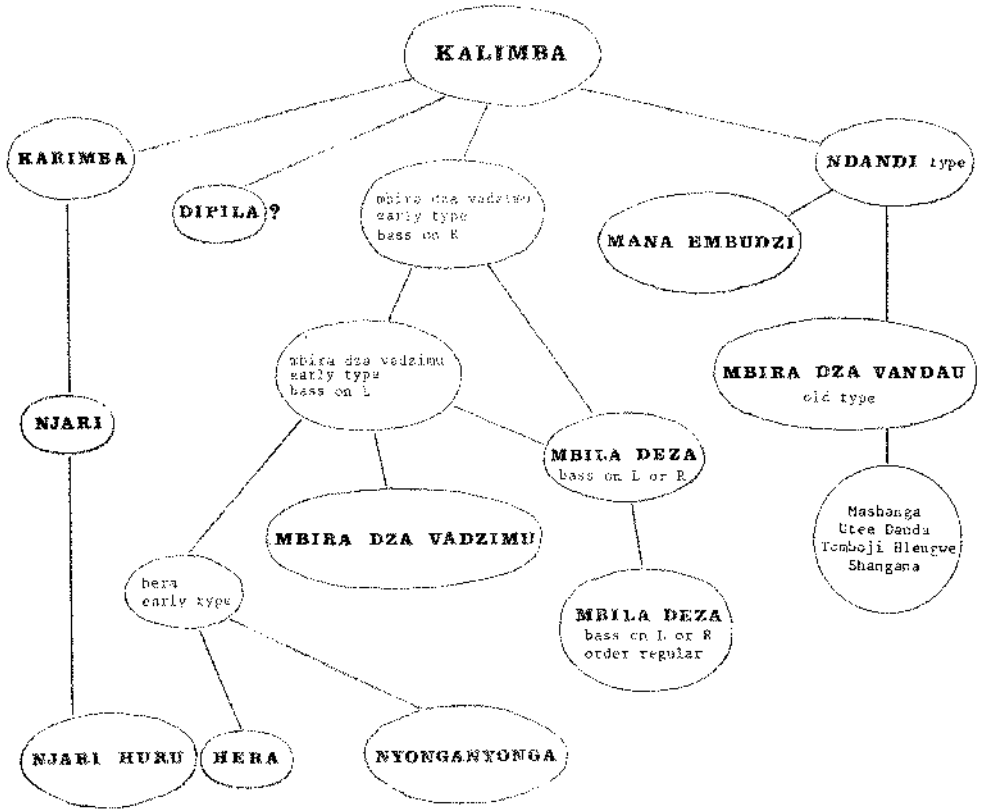
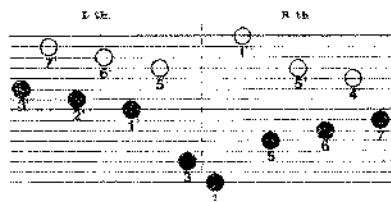


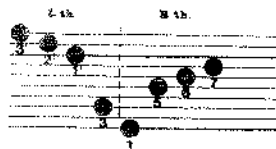


Diagram 2

THE FAMILY OF THE KALIMBA — KARIMBA — NJARI — NJARI HURU

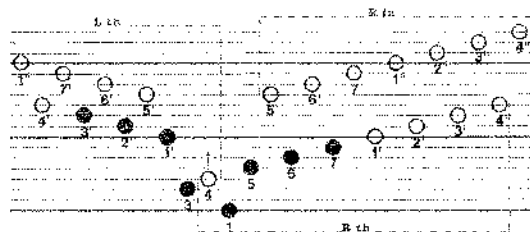


Nisanga kalimba (Blacking).  
The basic kalimba core is shown by the black notes.



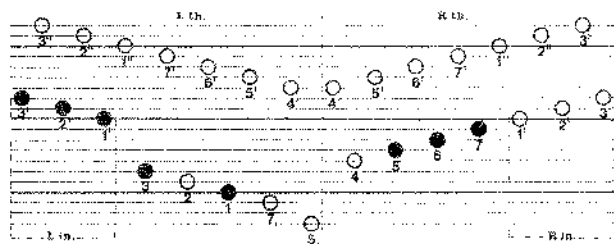
The basic kalimba core **A**

**A**



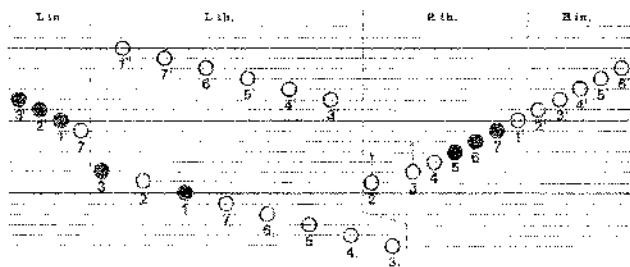
South bank kalimba.

**C**



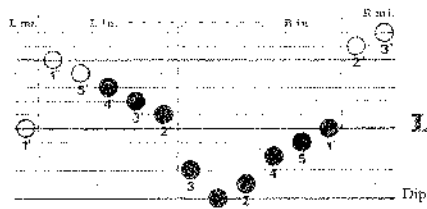
Njari, bigband type. Not all are as full as this, especially to the upper ranks. This diagram will also serve for the valley type, which sometimes adds more notes downwards in the L index, and 1, thumb lower rank, and notes 2 and 3 in the R lower thumb rank, bent up as in the njari huru.

**D**



Njari huru. The notes with arrows are bent up slightly.

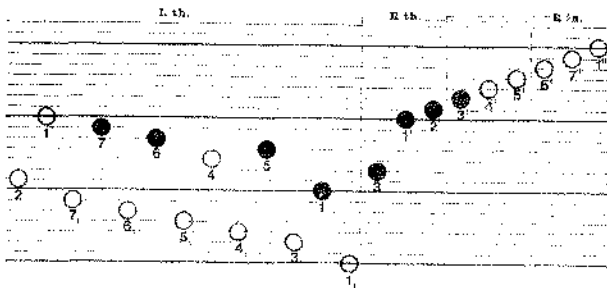
**E**



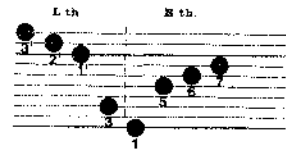
Dipila.

**F**

Diagram 3  
THE FAMILY OF THE MBIRA DZA VADZIMU — MBILA DEZA — HERA  
— NYONGANYONGA

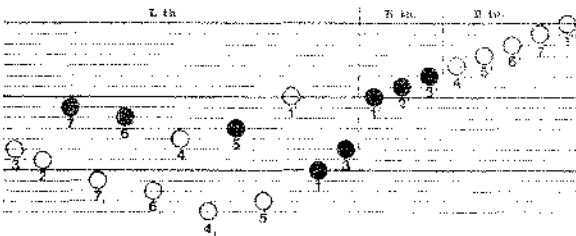


Mbira dza vadzimu. The kalimba core is shown in black.



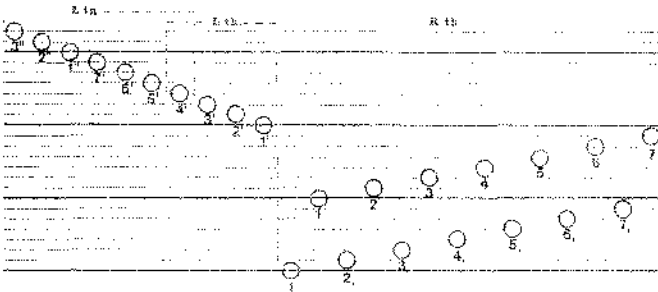
The basic kalimba core. **A**

**H**



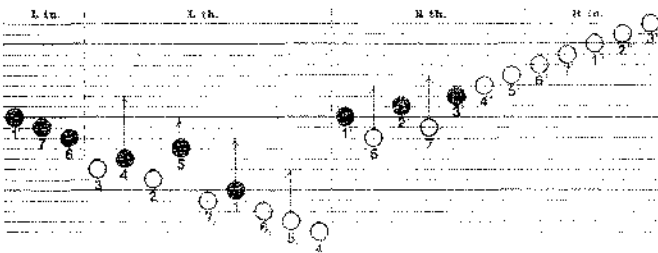
Mbila deza, older type (Kirby).

**K**



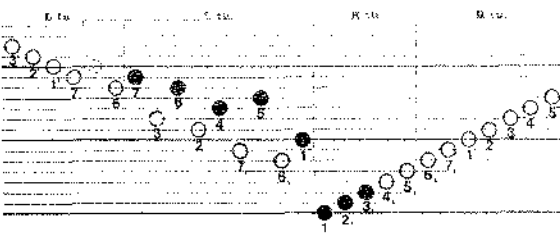
Mbila deza, left-handed, regular scale type.

**K**



Hera. The black notes show the resemblance with the mbira dza vadzimu. Notes with arrows are bent to form an upper rank.

**K**

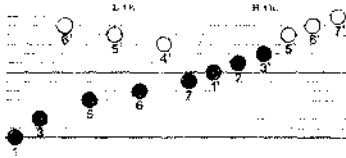


Nyonganyonga. The dotted note is found occasionally in larger instruments.

**I**

Diagram 4

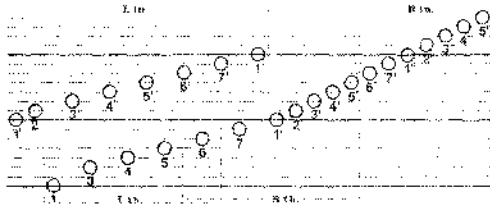
THE FAMILY OF THE NDIMBA — MANA EMBUDZI — MBIRA  
DZA VANDAU



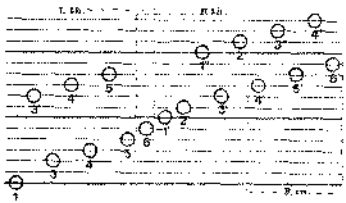
**B**  
Ndimba (Blackling).  
Notes 4, 5' and 6' in the L. hand are often spaced  
one note further to the left.



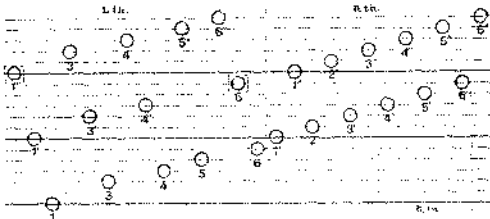
The basic kalimba core **A**



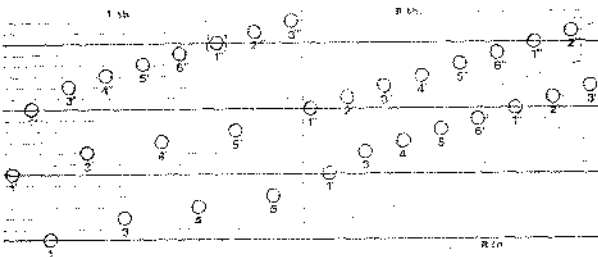
**G**  
Mana embudzi.  
The small dotted lines indicate that some players play notes 3' or 1'' in the upper  
rank with the index, some with the thumb.



**J**  
An early type of mbira  
dza vaNdau.

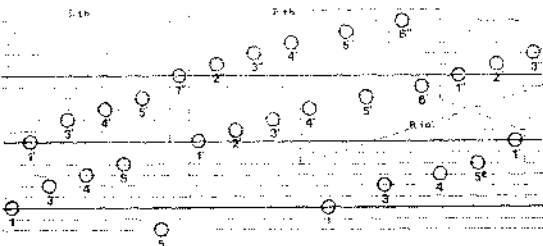


**Ja**  
Mbira dza vaNdau, Tomboiti type.  
The bracketed notes may be omitted.



**Jb**

Mbira dza vaNdau, Ganda type



**Jc**

Mbira dza vaNdau, Heren type.  
(The Ute are known to outsiders as Teru.)