THE ORIGINAL AFRICAN MBIRA?

by

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It may be possible to show, one day, that all the different mbiras[1] of Africa are descended from one another, and that all stem from one particular type, which can then be assumed to be the form of the instrument as it was originally invented. I would like to present here some evidence to show that in one large part of Africa at least all the many types of mbiras can be traced back, with greater or lesser degrees of probability, to one type which must, at least, be very ancient, and at most, if connections with, or distribution to other mbira areas of Africa can be proved, may be the nearest we will get to knowing the earliest form of the mbira in Africa.

The area comprises most of Rhodesia, central Mozambique, and southern and eastern Zambia, and parts of southern Malawi, southern Mozambique, and northern Transvaal, South Africa. Or, to put it more simply, much of the lower Zambezi valley, with a spill over towards the south (*see map*).

On first considering the bewildering variety of different types of mbiras played in this area, taking into account the different reed arrangements, methods of construction, tone qualities and musical techniques, it is hard to find any consistent family relationships. But if only one feature is taken as the main indicator, namely the arrangement of the notes in the keyboard, which, as it appears, turns out to be a remarkably constant factor, several interesting and far-reaching relationships come to light.

I have always found African musicians in this area to be completely decided on the name of the type of mbira which they play, even though the general appearance, size, number of reeds and other factors may have varied considerably from other mbiras of the same name. What is significant to them in the naming of a type of mbira is the arrangement of the notes. This arrangement may be altered by the addition or the subtraction of a few notes, or more rarely by transposition of a note or two. But providing the core remains the same, so that the basic notes the player requires are where he expects them to be, it is, quite logically, considered to be the same instrument.

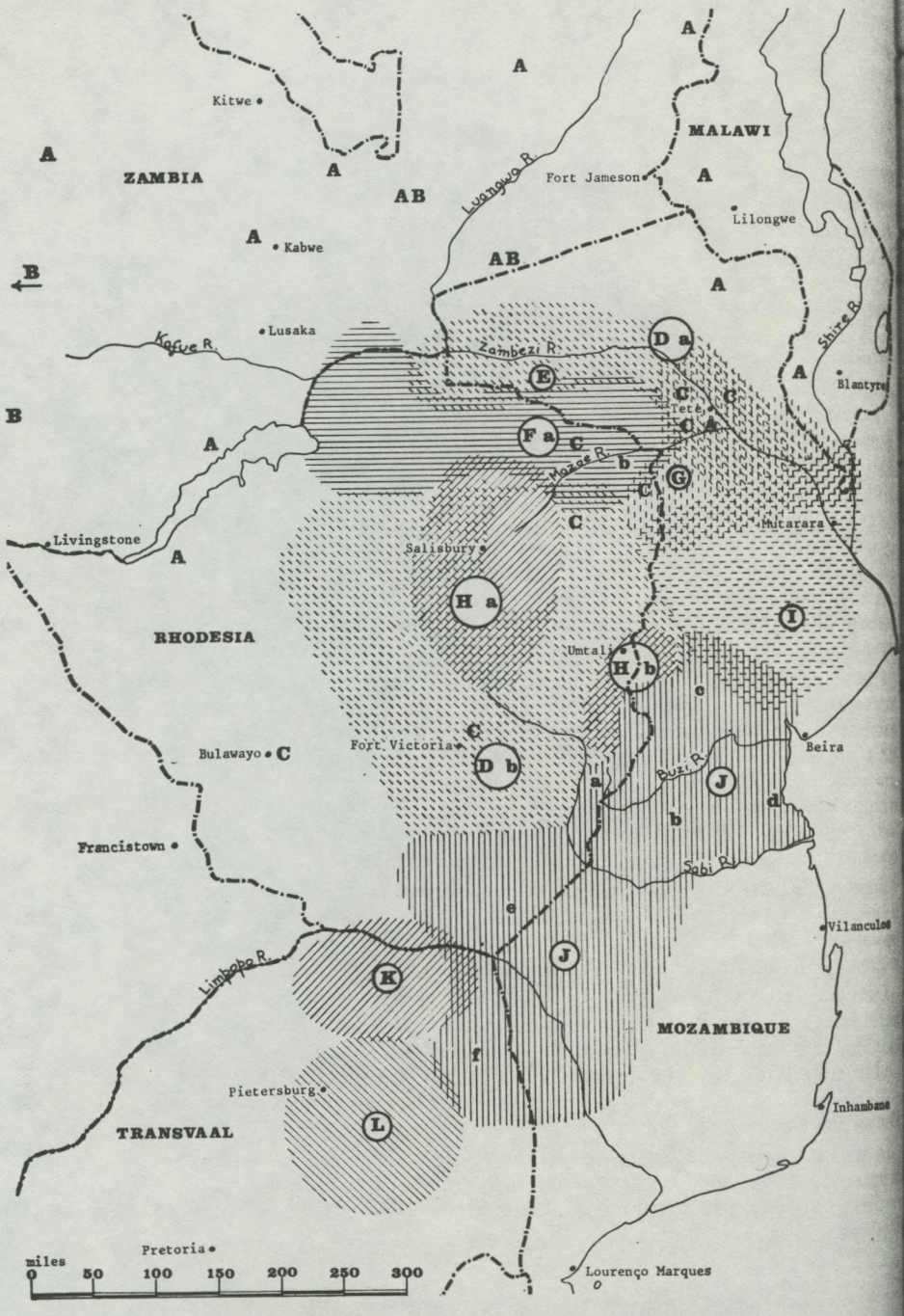
Starting from the 8-note kalimba, my candidate for "the original African mbira", it is possible, by adding, removing or altering notes to a small extent only, to arrive at the typical core arrangement of all the mbiras in the area in question. I hope to show that it is quite probable that this is what must have happened.

I am sure that if I had not learned to play many of the mbiras described here, this secret link between all of them would not have suggested itself to me. When you have an mbira in your hands and you find your fingers moving in the same way as on another kind of mbira you say to yourself: "That's funny", and it goes on from there . . .

The north bank kalimba

In whatever part of the Zambezi valley the ancient kalimba may have been played, its present distribution, as can be seen on the map, includes parts of central Mozambique, southern Malawi and southern and eastern Zambia, i.e. mostly to the north of the Zambezi.

[1] The mbira is the small plucked-reed instrument held between the hands and played with the thumbs and/or forefingers. Usually incorrectly termed 'sanza', another recent contender for the generic name is 'lamellophone'. See for instance Hugh Tracey 1961; Gerhard Kubik 1964 and 1965; and, with particular reference to the present article, Hugh Tracey 1969, which gives photographs of many of the mbiras discussed here.



The distribution of some of the descendants of the kalimba.

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

B NDIMBA TYPE
Shanga, also called ndandi (Lala), kangombio (Lozi), kathandi (Mbunda).

C KARIMBA
Nyungwe, Chikunda, Sena/Tonga, Korekore, Zezuru, Karanga. Also called kasansi, chisansi, nsansi, sansi, shanzhe ye pviro (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), madhebhe (Korekore/Budya).

G MANA EMBUDZI
Sena/Tonga, Nyungwe, Sena. Also called mbira dza vaTonga, 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
Garwe, Gorongozi, Sena. Also called marimba.

J MBIRA DZA VANDAU
(a) Highland, or Tomboji. (b) Danda. (c) Utee. (d) Mashanga. (e) Hlengwe (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 Seni (njari to mana embudzi, nyonganyonga) or Shona to Ndau (njari, mbira dza vadzimu 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. (See Fig. 2b).

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.

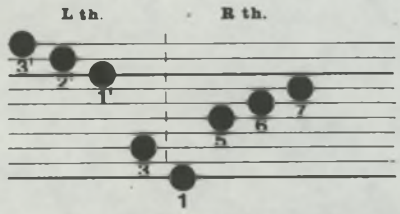


Fig. 1. The basic kalimba core.

This is the instrument with a minimum of eight reeds, tuned as shown in Fig. 1. Frequently there are extra reeds added to form an upper rank, as for instance in Figs. 2a and b. That there are many ways of adding extra reeds attests the basic nature of the 8-reed core, which remains unaltered and plainly visible in the lower rank.

Note the typical tuning plan of the kalimba, as this is what we shall have to trace through the other types of mbira – on the left, three consecutive notes and a sixth below, on the right, three consecutive notes again, following down from the three on the left and a fifth below.

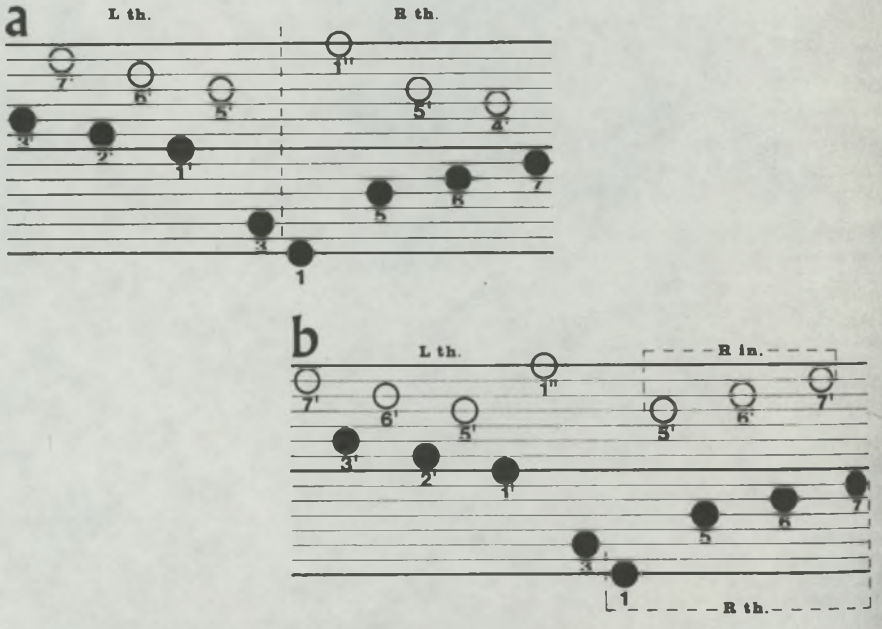


Fig. 2. (a) Nsenga kalimba (Blacking). (b) Zezuru karimba, Mrewa district.
The basic kalimba core is shown by the black notes.

The numbering system uses the numbers one to seven to indicate the seven notes of the heptatonic scales in use in the area. It can be seen at a glance, for instance, which notes are octaves, unisons, etc. Any two notes with the same number are unisons, or if the octave marks are different, octaves (1, 1′, 1″). The same numbering system is carried through all the mbira diagrams. It is not intended to show tonal importance but to facilitate comparison between the different mbira layouts.

I regret that the choice of axes in some of the diagrams is bound to distort the actual angles of the rows of reeds on the mbiras, and secondly that some of the ranks of reeds

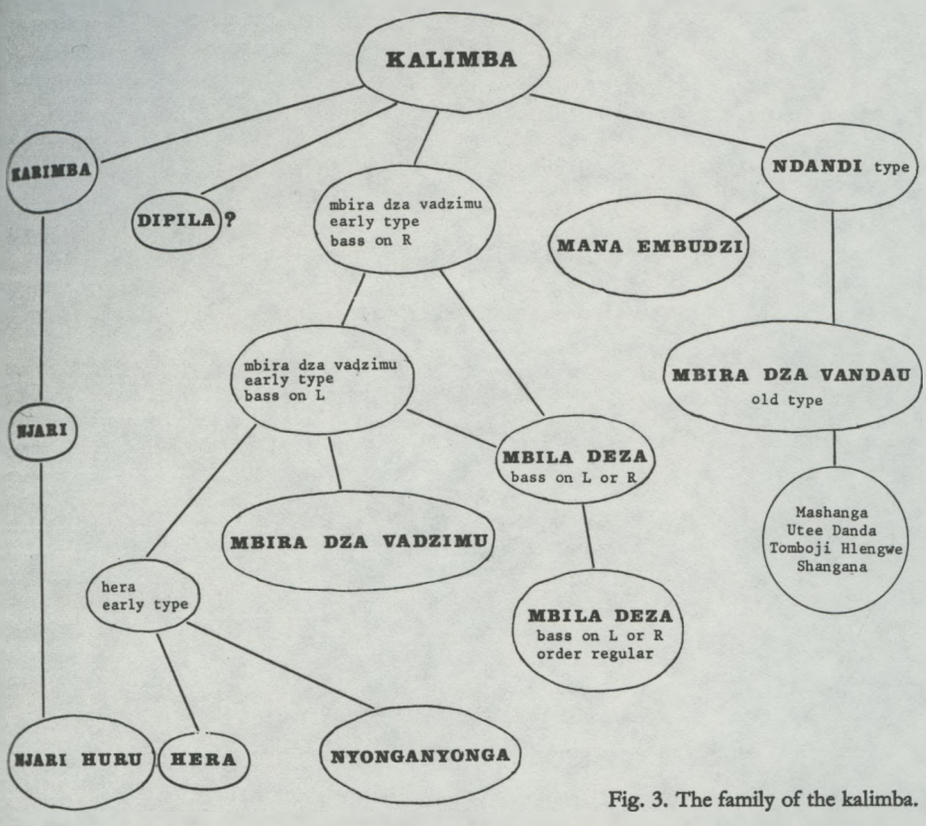


Fig. 3. The family of the kalimba.

appear to be crooked when on the mbira they are straight, again due to the demands of the method chosen. Mbira reeds have length as well as pitch, and I have chosen to concentrate on the latter. However, it is fortunate that on the mbira the two coincide to such an extent that a pitch diagram can also serve as an almost accurate "picture" of the instrument's keyboard.

There are many tunings in use, but, important though they are in considering the music itself, a discussion of these would not add significantly to the present argument. Tuning plans can be followed relatively unchanged from instrument to instrument and place to place; the actual tuning, however, will often change, even on the same type of instrument, from language group to language group, and tell us more about a people's musical preferences than about the history of their instrument.

You may ask how the basic kalimba can be considered heptatonic when on its own evidence there are only six different notes, with the octaves of two of them. Of course it is impossible to know how the music sounded on the first kalimbas. It is quite likely that it was hexatonic. Evidence for this may exist in the stratum of hexatonic music which is found among many of the Shona and Sena peoples, exemplified in such types of music as the threshing songs, and, of course, in the present day Ndau mbira, one of the descendants of the kalimba, which is entirely hexatonic, as is the singing which it accompanies. As the kalimba is played today, however, the music is usually, though not always, heptatonic, depending on the tune in question. When extra reeds are added to the kalimba a seventh note nearly always appears. This is numbered 4 in the present

system, because of its position. Even in cases where it does not appear on the instrument, this note 4 can often be heard in the singing.

The family of the kalimba

Fig. 3 is a tentative table of the relationships of the kalimba and its descendants. No time scale is implied, only a sequence of developments that must have followed this order. The njari huru and hera are placed near each other to show their physical similarity, probably developed from their geographical proximity (E and F a on the map).

The south bank karimba

Unlike the kalimba types on the north bank, which are small, with few notes (normally less than 15), the mbira known as karimba (the same word, spoken by a different language group) on the south bank has undergone a certain expansion, frequently to 20 or more reeds.

Here a brief digression into the matter of chronology. I have assumed, not without justification I hope, that of two examples of a particular type of artifact, the more complex can usually be considered the later. In this particular case, where 15 or more types of mbiras seem to share a common feature, that is, relationship with a certain tuning plan, the instrument that shows this tuning plan in its simplest form can safely be assumed to be the oldest. This is why I say that the south bank karimba, and in fact all the other types to be discussed here, are expanded versions of the 8-reed kalimba, and not the other way around.

The principles by which extra reeds have been added to the karimba are similar to those which we shall find in the expansion of the other types of mbira. It should not be thought that notes are added haphazardly, but with a view to expanding the expression of the instrument in terms of Shona musical principles.

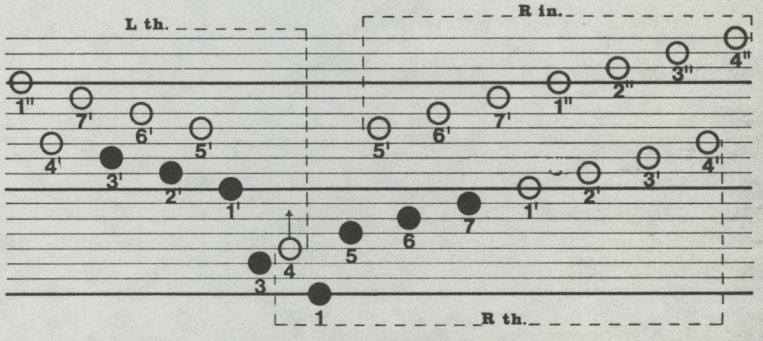


Fig. 4. South bank karimba.

(*a*) Sections of the layout may be extended by the addition of consecutive notes of the scale upwards and outwards. In Fig. 4 this can be seen on both sides.

(*b*) A new rank of notes may be created, either an octave up or down from the rank, arranged so that all the respective octave reeds are next to each other. This can be seen on the right of Fig. 4 – a new rank an octave above the original 5, 6, 7 part of the kalimba core.

(*c*) A section of the layout on one side may be duplicated note for note on the other side. This is the top left rank in Fig. 4.

Note that all these methods of adding to an existing layout are regular, in terms of the successive order of notes in the scale. The only irregularities are those inherent in the original layout, which is preserved at the centre of the new one.

An interesting question is posed by note 4 in Fig. 4. Obviously, since a note of this

such was required, a new place had to be found to fit it. The answer here in the case of the karimba was in between the two lowest notes. Being shorter, however, the tip of the reed would be inaccessible if the reed were mounted in the same plane as its two neighbours, so it is always bent upwards in the manner of the upper rank, although it is not part of it. The answer in the case of the mbira dza vadzimu and the njari was different, as we shall see.

This anomalous position of the fourth degree of the scale in several types of mbira was one of my first clues to this particular investigation. On the karimba, it plainly looked like an interloper.

At this point again two families diverge, that of the mbira dza vadzimu and its descendants, and of the njari.

The mbira dza vadzimu family

This mbira (Fig. 5), although to the eye nothing like a kalimba at all, has so many convergences with it that it is the only one of the mbira family of which it can be said with complete certainty that it descends directly from the kalimba.

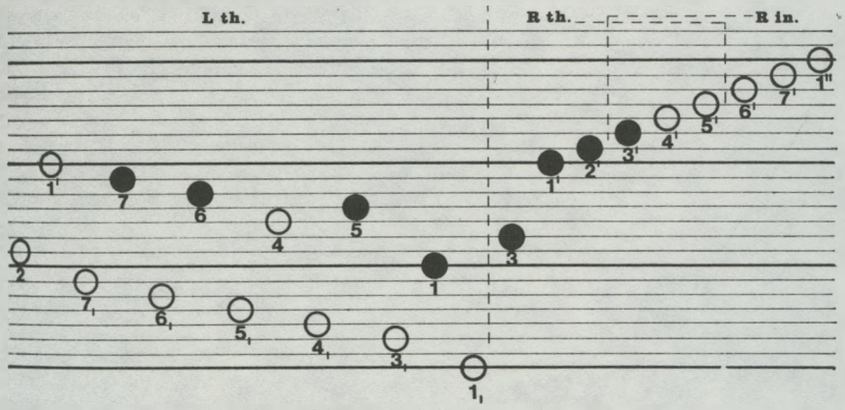


Fig. 5. Mbira dza vadzimu. The kalimba core is shown in black.

Of the three ranks of reeds on the instrument, the lowest and highest are regular in scale order, but the middle pitched one, the upper left rank, is not. It can soon be seen from the numbering that this order is identical to that of the *right* hand of the karimba core, but with the fourth degree of the scale added at a different place from that chosen in the south bank karimba. If there is any doubt about this, it should be dispelled on looking at the other side of the keyboard – a long run of successive notes of the scale, followed by one low note, a sixth down. This is identical to the kalimba *left* hand. The notes of the kalimba core are marked in black.

So at the centre of the mbira dza vadzimu there is a kalimba! The intriguing difference is that the layout has been reversed left to right. This is discussed below.

A certain degree of musical corroboration can be found in the fact that learners at the present day are very often taught simple condensed versions of the tune, using virtually only those notes that belong to the kalimba core, i.e. from the bottom, 1, 3, 4, 5, 6, 7, 1′ (right), 2′, 3′. The exact notes used depend, of course, on the tune being learned. The greater the facility and experience of the player, the further outwards from the core does he go.

To bring the number of reeds up to a standard 22 (some have more), (1) the three high notes of the kalimba L hand have been extended upwards by five notes; (2) the kalimba R hand has two additions, one note extra at the top (1′), and that intrusive 4th

note, from its out-of-order position again looking like an intruder; (3) a new rank of notes has been created *below* the kalimba R hand this time. Note again that the order of notes in this new low rank is regular, though containing gaps. A place had to be found, for instance, for note 2, missing in the kalimba core (although present in the upper octave, 2′). This has been put at the outer end of the new low rank. According to Mauch's detailed drawing[2] and a few ancient specimens I have seen myself, note 3 and sometimes notes 6 and 7 were also added outside note 2.

The highly irregular order of the notes 7,, 1, 2, 3, 4, 5 seems to attest the fact again that the makers of the mbira dza vadzimu were handed down something very irregular on which to build. Where they were free to add new notes as they pleased it was always in regular order, as in the new low rank and the extension of the high rank, even if this meant that in order to play the octaves some were adjacent, and for some you had to cross (e.g. notes 4 and 4,, and 5 and 5,).

Why the intrusive note 4 found its particular position is hard to say. Given the regularity of the other additions, one would have expected it to be on the right, rather than on the left of note 5. One could guess that the note had already been put there in early extended models of the karimba which no longer exist, and that mbira dza vadzimu makers copied this model. Or there may possibly be a musical reason, in that this note and note 1 are the two main tone centres in the music. It would thus be more convenient, when playing music built around note 4, to have it in a central position. But neither of these suggestions has much weight.

As regards the left-right reversal, here was one of those situations when a piece of evidence formerly without a home suddenly clicked into place and completed the picture. This was that the mbila deza of the Venda, an instrument almost identical to the mbira dza vadzimu, is very often found *left-right reversed*, "left-handed" as it were. It thus preserves the original kalimba handedness. I know of no other type of mbira, certainly not in the area we are concerned with, which has 'left' and 'right' handed versions.

The Venda are related to the Shona. The ruling clans, it is estimated, separated about 300 years ago, the others earlier. The change-over must have happened before their departure, probably a long time before, in view of all the developments that grew out of the new "bass-on-left" instrument, i.e. the hera and nyonganyonga, with their wide geographical expansion. All of this must have taken a great deal of time.

What could have accounted for this change-over? While it could, of course, have been an historical accident, which could include a decree of some kind, an avoidance, or the result of a famous player, perhaps left-handed, being associated with the instrument, it should also be remembered that in the case of our third family, that of the ndimba, mana embudzi and mbira dza vaNdau, the notes are always organised with bass left and treble right. Further, among the xylophone playing peoples who live around the edge of our mbira area, the Lozi, Sena, Mashanga, Tswa, Chopi and Venda, the bass is almost universally on the left. What the musical, psychological or historical reasons for this may be I do not know, but there must be one to account for this unanimity. It may reach into right-left/male-female symbolism, but I can find nothing definite to work on. When groups of notes on mbiras are named so as to indicate gender, as they sometimes are, the high notes are termed female, in contrast to what might be expected if the left, or deep side was associated with female. A few Chopi musicians play left-handed, some by sitting at the other side of a normal instrument, some on specially constructed instruments, but this may amount to about 4 per cent only of players, and can be shown to be a result of physical left-handedness.

[2] Carl Mauch 1969.

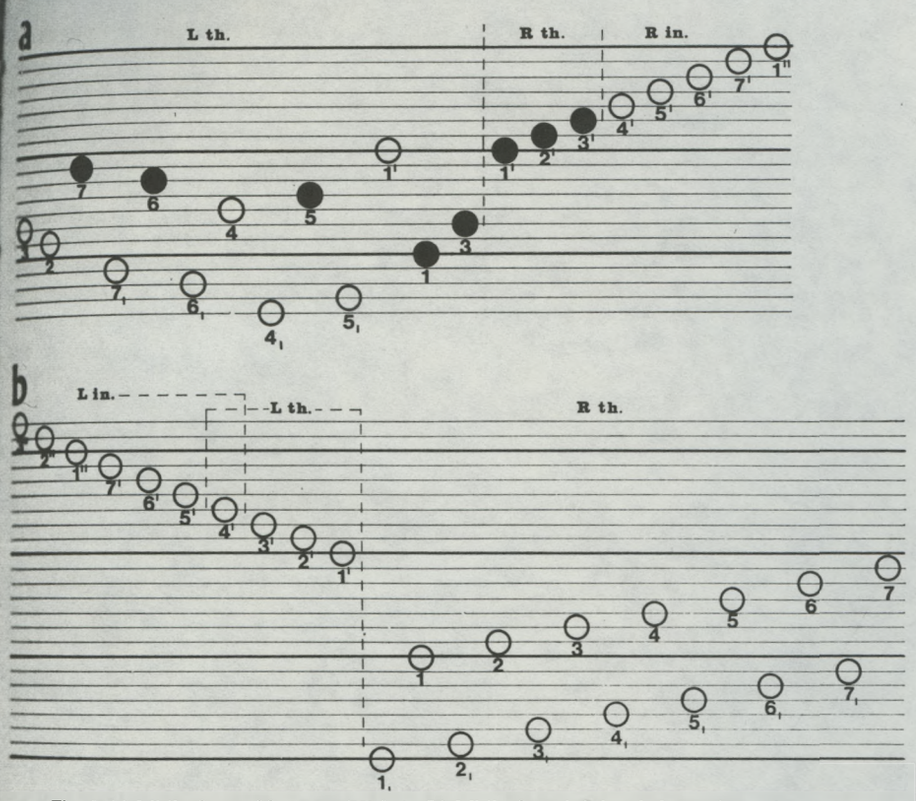


Fig. 6. (a) Mbila deza, older type (Kirby). (b) Mbila deza, left-handed, regular scale type.

One more note about the mbila deza. With its long history and relative isolation from the central Shona it has not been immune to developments of its own. A number of tuning plans exist, some of them reflecting the mbira dza vadzimu exactly; others where the two main irregularities inherited from their kalimba ancestor have been straightened out: (1) the order of notes in the two low ranks is regularised and, (2) the singleton low note belonging to the kalimba L hand is dropped. Fig. 6 shows examples of both types. Mbila deza players must forgive me for naming the family by the probably junior name of the mbira dza vadzimu. This is simply because I have not yet done enough work on the mbila deza.

The hera or matepe

To digress briefly from reeds and tuning plans into social usage . . . The mbira dza vadzimu and hera (or matepe) are unique among mbiras in Africa in that they are used almost exclusively for religious purposes, primarily for making contact with the vadzimu, the ancestor spirits. The name itself, "mbira of the spirits", indicates the importance of its function to the Zezuru people. The hera, originating with the Korekore, but also played by the Tavara, Sena/Tonga and Nyungwe, also belongs to the spirits, more specifically the tribal or chief's spirits called mhondoro. The complete repertoire of the mbira dza vadzimu, as far as I know, is dedicated to the vadzimu, while on the hera the great majority is so devoted.

The njari and south bank karimba should not be left out here, as they can also b played for ritual purposes. In fact where the njari has usurped the mbira dza vadzimu place in Rhodesia it has also taken over its religious function. But there is little or n feeling of 'dedication' with these, and they may play equally for secular purposes, fo vadzimu or even for the mashave independent souls.

The similarity between mbira dza vadzimu and hera extends even to some of th tunes themselves. I have heard hera players saying words to the effect that "This tune the same as *x* tune (some standard tune of the mbira dza vadzimu)". Even if the co nection is not consciously known by the players, musical analysis reveals it to be the The absolute pitch of the two mbiras is also very similar, although the mbira dza vadzim shows more variation in this than does the hera.

Further, the Korekore and Zezuru, together with the Manyika and Karanga (wh formerly played the mbira dza vadzimu) are closely related members of the Shon language group, bound not only by language but also by their common history passage through the period of the Zimbabwe and Monomotapa kingdoms. Given th political importance of spirit mediums, at present diminished or dormant, but tra tionally great, and the central position occupied in their rites by the mbira, we m guess at the importance of the mbira during those periods.

It is my guess that it was during the Monomotapa period that the development the hera took place, starting from the already existing mbira dza vadzimu. This, ho ever, may not have been in its present-day form, but may still have been without i lower left rank. As we shall see, only the upper left rank was transferred to the hera.

To return to the tuning plan, it is the irregularities which always attract attentio To take the left side of the hera first, it can be seen that the (irregular) order of the fi six notes in the upper rank, including the three index finger reeds (see Fig. 7) is identic to that of the upper left rank of the mbira dza vadzimu. On the right side, if one ignor for the moment the two upper rank reeds, there is the same regular scale, starting at th same relative position (on note 1).

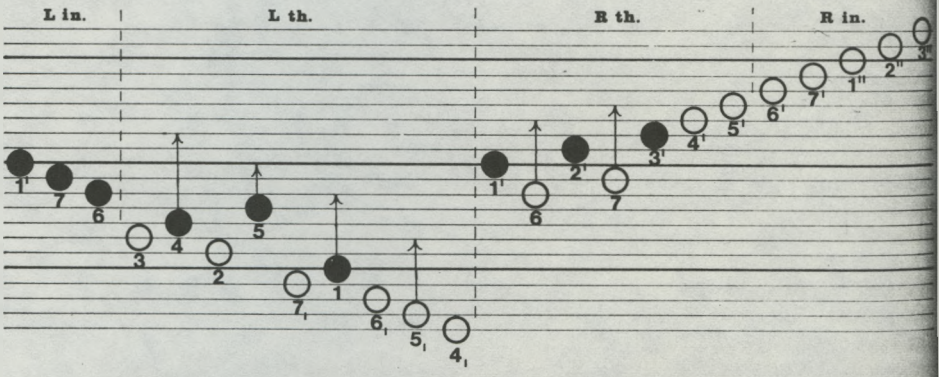


Fig. 7. Hera. The black notes show the resemblance with the mbira dza vadzimu. Notes with arrows are bent to form an upper rank.

When considering the additions, six notes on the left and four on the right, it interesting to note that the tonal function of the reeds has altered between mbira d vadzimu and hera. Whereas on the mbira dza vadzimu the reeds numbered 1 and 4 a the main tonal centres, this function is taken over on the hera primarily by 4 and (note always a fourth apart). Which came first, the change in tonal function or the ext

we cannot know; we can only observe that if 4 and 7 are to be tonal centres then it makes sense for instance in the R hand to add an extra low 7, and in the L hand a new low 4,.

The additions in this case, however, might be better considered from the point of view of the music played on the hera[3]. It seems to be important that each active playing finger (except the L index, which has a different function) have at least seven notes, one at least of every note in the scale. Seven-note sections or playing areas are found in many of the mbiras under discussion, e.g. the mbila deza, the njari, the nyonganyonga, etc. This would account for the two bent-up low notes in the R hand, which would give the R thumb the same seven notes as the L thumb, which originally probably had only seven, down as far as note 6,.

Evidence for this is that the next member of the family, the nyonganyonga, duplicates the hera's L thumb notes, but only down as far as note 6,. It therefore seems likely that the original hera was the same, with only seven notes for the L thumb.

We still have to account for the differences between the L hands of the hera and the mbira dza vadzimu. First it has to be assumed that someone began to play the three outside left reeds on the original mbira dza vadzimu with his left index finger. Although the standard present-day instrument is never played in this way this is not too much to assume, viz., the diagram of a Karanga mbira dze midzimu drawn by Mauch in 1872[4] and a photograph of a similar instrument taken by Hugh Tracey in 1932[5], in both of which I think it likely that the two outside left reeds were played with the L index. I have also recently discovered some ancient survivors of the Manyika mbira dza vadzimu whose extreme left hand reeds, although not necessarily the three in question, show evidence of having been played from below. In most of these cases the tuning was so faulty through years of disuse and unwillingness on the part of the owners to disturb their forefathers' tuning that it was hard to know which L hand notes were which. But an important linguistic clue also came up in connection with these ancient instruments – the owners knew them firstly as "mbira", but if questioned as to what type, they replied "mbira huru" or "matepe"! This is the same name as that used at the present day for the hera by the Korekore/Budya people (madhebhe) and the Sena/Tonga people (matepe).

So, if the three outside reeds are plucked with the L index finger, the thumb is left with only three, and needs four extra notes to make up its minimum of seven. As can be seen, these four have been added in a lower rank in as near a regular order as possible. 3 and 2 to fill the gap between 4 and 1, and 7, and 6, to complete the seven notes (5, and 4 being later additions as we have suggested above).

In the R hand, the two bent-up low notes have already been mentioned. Obviously late arrivals, two is the standard figure, but three or four are also found, that is down to note 5 or 4.

The R hand rank in the basic hera is extended upwards to note 3". There are several variations for this end of the scale in different parts of the hera country, for instance at Mkota this rank goes up to note 5", and in east Darwin there is an extra bent-up rank consisting at least of notes 2", 3", 4" and 5". There are other variations too, both on the left and right.

Finally, the singleton low 3, found in the mbira dza vadzimu (R hand) and the kalimba (L hand), has been dropped. My impression of this is that once you have music with intensive chordal feeling and a variety of tonal centres, a single note in a rank all by itself is almost useless. You cannot include it rhythmically throughout the piece of music, as it only fits into two chords, those with the notes a fourth or a fifth away,

[3] See Andrew Tracey 1970/1.
[4] *Op. cit.*
[5] In the International Library of African Music's collection.

according to the principles of Shona harmony. Most Shona mbira music uses a succession of six, if not all seven diatonic chords available. In music of simple, unvarying tonality, such as on the kalimba, this factor is unimportant, and note 3 can be put to good rhythmic advantage.

It is already an anachronism, to a certain extent, on the mbira dza vadzimu. Although this needs more investigation, it seems to me that the note is extensively used only in tunes centred around the tonality of note 1, such as "Nyamaropa" and "Taireva"[6].

The solution would be either to drop this single-note rank altogether, or to develop it into a usable rank of at least three notes or more. The first solution was adopted by the hera and some types of the mbila deza, as already mentioned; the second, as we shall see, by the njari.

To conclude this discussion of the hera, although it cannot be said with such assurance that "at the centre of the hera there is an mbira dza vadzimu", by thus marshalling all the pieces of evidence, quite a strong case can be made for it.

The nyonganyonga

The first thing to remark about the nyonganyonga (Fig. 8) is that it looks exactly like the hera with the L hand reeds halved in length and the R hand reeds doubled. Comparison of the note order confirms this – exactly the same irregular order in the L upper rank as we first saw on the mbira dza vadzimu, but at a higher absolute pitch, and the same long regular scale in the R hand starting on note 1′, but two octaves down (1,). The bass notes are therefore now in the R hand.

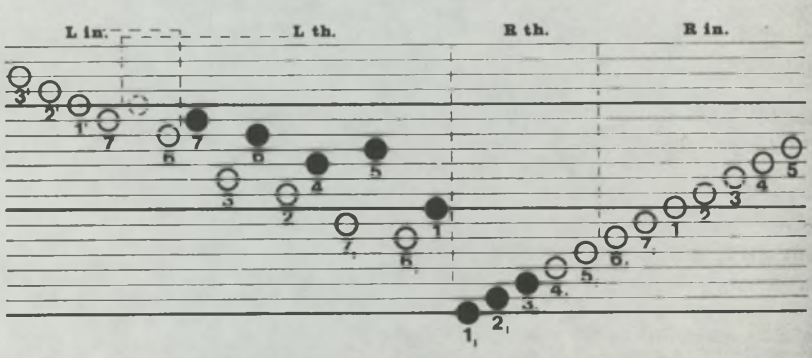


Fig. 8. Nyonganyonga. The dotted note is found occasionally in larger instruments.

The three notes 1′, 7 and 6 in the L upper rank that were taken over by the L index on the hera are back to the thumb here, just as in the original mbira dza vadzimu. Instead of these, a whole new rank of five notes has been created for the left index (occasionally six or seven). As might be expected with this potential, the left index has more extended parts to play than on the hera, although its function otherwise remains similar, to provide harmonic support at the octave for the L thumb, and rhythmic contrast against both hands.

I have only one positive piece of evidence as to what may have given rise to this octave-change effect in the nyonganyonga, and that is a single example belonging to Dzingo, an old Sena musician at Chiromo, southern Malawi, whom I met in 1971. His instrument resembled a standard nyonganyonga on the left, but on the right there were *two* ranks, interspaced in the usual way, but two octaves apart. The upper rank showed

[6] These tunes can be seen in Andrew Tracey 1970/2.

the usual left-right pitch relationship of the hera, and the lower rank that of the nyonganyonga. I noticed that the overtones of the reeds in the lower rank were tuned, and were in unison with the notes of the upper rank.

Here mention should be made of the acoustical properties of mbira reeds, especially as they are made in the lower Zambezi valley area. Whereas the mbira dza vadzimu, mbila deza and njari of the highlands are made with broad, heavy reeds, the mbiras of the valley, including the karimba, hera, nyonganyonga, lowland njari and mana embudzi have thin, narrow, tapering reeds whose overtones sound much louder in relation to the fundamental. This fact is often used to positive effect in tuning. Instead of tuning the so-called "big" or "deep" notes to their almost inaudible fundamental, the overtone is chosen as the significant tuning note. As the first overtone of an mbira reed is approximately *two* octaves up from the fundamental, this causes the sound of the "deep" notes to intermingle at the same pitch with other, higher ranks on the instrument, an effect apparently much desired by musicians in this part of Africa[7].

To return to the nyonganyonga, if some maker had started with a rather high-pitched hera, or hera type, and decided to obtain the pitches of the R hand scale via the overtones of a rank of longer reeds, instead of in the usual way, this would account sufficiently for the octave-change effect.

While in Malawi I also came across an old, small example of a Sena nyonganyonga in a private collection (Fig. 9). It was almost the size of a kalimba, but otherwise just another example of an "apparently haphazard" African tuning. It was the hallmark of that tuning, however, which enabled me to link it up, via hundreds of miles and hundreds of years of experimentation and improvement on the part of African musicians, with the other members of its distantly spread family.

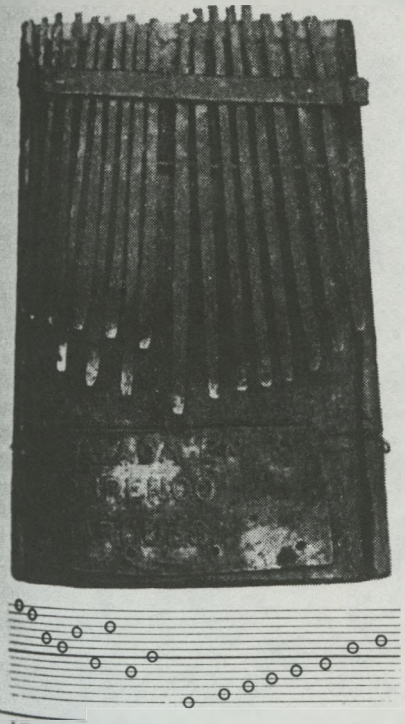


Fig. 9. Old Sena nyonganyonga, Malawi. (Van Zanten).

[7] There are also other ways of achieving this same effect. See Andrew Tracey 1970/1 and 1969.

The njari

Two isolated incidents opened my eyes to the possibility of the njari being another branch of the kalimba family. One was at Chioco, in Tete district, when I happened to play back a previous recording of Lazaro Vinho, the famous blind Nyungwe mbira player from Mandie. The hera player I was recording remarked with scorn, "Oh that *kalimba* player!" Many hera players are convinced of the superiority of their type of mbira! Now this may merely have meant that the njari was as worthy of derision as the relatively small and insignificant kalimba, or, on the other hand, it could have meant that the njari *was* a kind of kalimba.

The other incident happened near Fort Victoria, Rhodesia, while recording Sinza Mashoko, the equally famous Karanga njari player. I had with me a karimba of the type I had been learning, from Mrewa district near Salisbury (see Fig. 2b). Unsatisfied with the lack of two notes at the bottom (2 and 4), I had added them in, in the places that seemed most obvious to me, i.e. note 2 went between 1 and 3, and note 4 between 1 and 5. I had also added notes 1′, 2′ and 3′ to the R hand lower rank, to duplicate those in the L hand, as I had seen done on other, larger karimbas, and an extra note 4′ in the R upper rank, next to its octave in the lower rank. Mashoko picked up the mbira, assuming it was an njari, and began to play it in njari style, with njari fingering, using both indexes, without even stopping to test the pitches of the reeds first. If my karimba can be both a karimba and an njari, I thought, according to the way it is fingered, the two must be rather closely related.

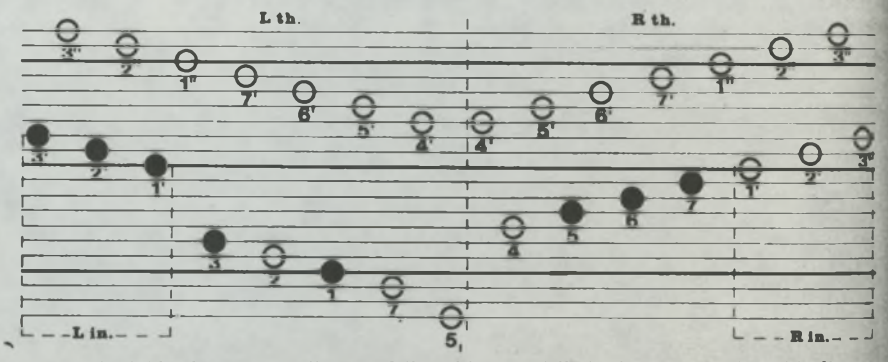


Fig. 10. Njari, highland type. Not all are as full as this, especially in the upper ranks. This diagram will also serve for the valley type, which sometimes adds more notes downwards in the L index, and L thumb lower rank, and notes 2 and 3 in the R lower thumb rank, bent up as in the njari huru.

The kalimba core can, in fact, be found easily in the njari (Fig. 10). The missing note 4 has found yet a third place (*cf.* the karimba and the mbira dza vadzimu), this time in regular order below note 5; note 1 is now played by the L hand, and note 2 appears, logically enough, between 1 and 3. Then this rather small rank has been extended downwards, always by at least one note (7,), more often by two (7, with 6, or 5,). As with the karimba, the lower R rank is extended up to note 3′, the additions being played with the index. The upper ranks are virtually identical to the karimba, except that note 4 is added at the centre, instead of at the outside of the lower ranks, in order to be adjacent to its lower octave. A further link with the karimba is that a few players whom I have seen pluck the L index reeds with their thumb, others with thumb or index, according to the tune.

There are many variations on the njari tuning plan, but I have never seen one that does not have at least two notes in the L index, four in the L lower thumb, seven in the R lower rank, and about four in the L upper thumb.

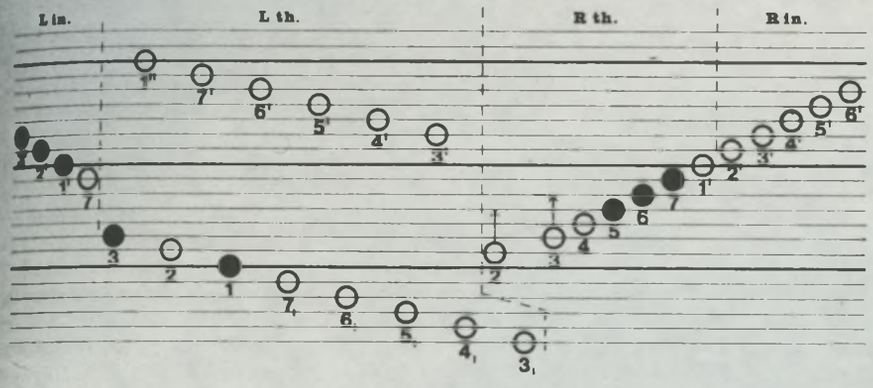


Fig. 11. Njari huru. The notes with arrows are bent up slightly.

The major sub-type of the njari, the njari huru, can be seen in Fig. 11, a considerably enlarged instrument, which however still keeps the basic structure of an njari. Notes 2 and 3 in the R hand, duplicates of the L hand, are additions, and as if to show it, they are bent up slightly in a way that is reminiscent of the hera, which also has two "added" notes at the bottom of its R hand rank. In this and other ways, such as performance technique and construction, the njari huru and the hera show similarities that must have arisen from their development over a long period in close proximity, with the interaction of the Chikunda and Korekore peoples. In fact, on first sight, the njari huru appears to be merely a variant of the hera, with its L hand rank straightened out into regular scale order. Some njari hurus have no upper L rank, which increases the likeness further. The internal structure of the notes shows, however, that the two mbiras, although so similar in sound and looks, have reached this stage along entirely different paths, even including, in the case of the hera, a left-right reversal of the keyboard.

The ndimba family

This family differs from the others in that most of the reeds are arranged with the deep notes on the left, sloping diagonally upwards to the high notes on the right, i.e. something in the manner of a western keyboard instrument. Thus the inherent irregularity of the kalimba, which has been our guide, is largely destroyed. My argument for their inclusion in the kalimba family on the basis of their tuning plans rests mainly on small pieces of evidence. One is that in the ndimba itself, as played by the Lala, Nsenga, Lozi and others in Zambia, the arrangement of the notes leads one to think that they are the very notes of a kalimba, rearranged, for the most part, in L-R scale order. Another is that the interval of a third between the two lowest notes, as on the kalimba, is found in all the members of the family. A slight piece of evidence, to be sure, but it is at least an idiosyncracy that can be traced. The instruments are constructed in an identical fashion to the other members of the kalimba family; they are played by members of the same or closely related language groups, often with the same repertoire. On this basis alone they could be included in the family, but without the specific link to the kalimba.

If we now look at the ndimba, it is obvious, in the first place, that the actual pitches used are those of the kalimba (compare Fig. 12 with Fig. 1) . . . the two gaps at the bottom of the scale, the halt in the scale at note 3′, the 4′ finding an irregular place, and the scale going on up on both sides. Among the Nsenga this instrument is the professional's

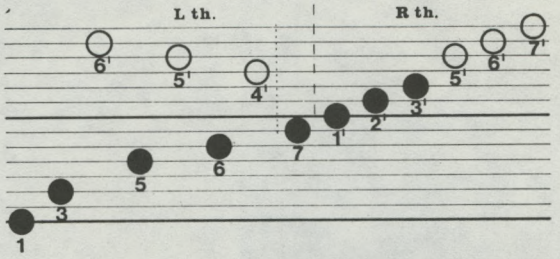


Fig. 12. Ndimba (Blacking). Notes 4′, 5′ and 6′ in the L hand are often spaced one note further to the left.

version of the kalimba, which is played mostly by younger, amateur musicians[8]. It seems entirely probable that the ndimba results from a deliberate change-over from the kalimba. It is worth noting here that the silimba xylophone of the Lozi has almost the same tuning plan as the ndimba, usually, but not always, with two gaps at the bottom of the scale (1-3, 3-5), which then goes up regularly from there.

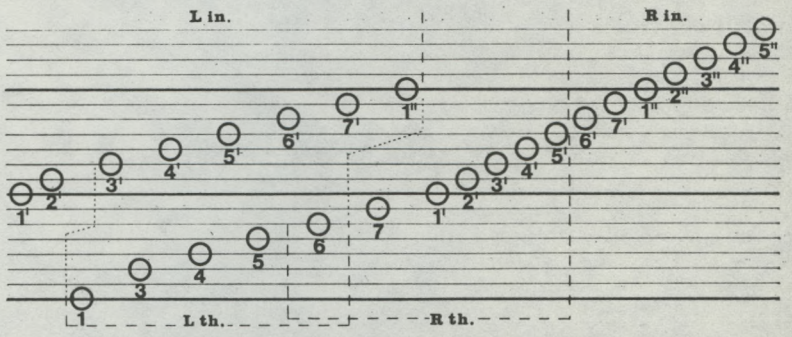


Fig. 13. Mana embudzi. The small dotted lines indicate that some players play notes 3′ to 1″ in the upper rank with the index, some with the thumb.

I have no specific evidence to connect the mana embudzi (= goat's teeth!) with the ndimba. The tuning plan (Fig. 13) shows an arrangement regular in all respects except for the gap of a third at the bottom. Given the tuning plan of the ndimba, and some of the developmental principles we have already seen in operation with the other members of the kalimba family, it is certainly not unlikely that one could have come from the other.

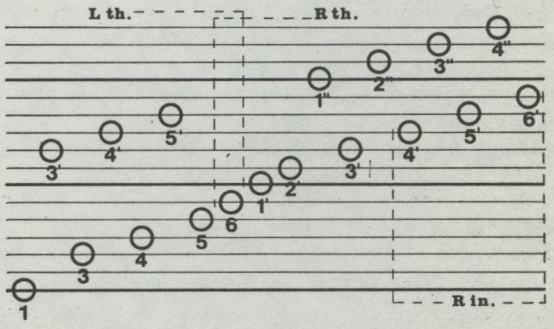


Fig. 14. An early type of mbira dza vaNdau.

[8] Blacking, 1961.

Similarly with the mbira dza vaNdau – I would suggest an original hexatonic version of the ndimba, i.e. before the note 4′ was added to either ndimba or kalimba, from which both ndimba and mbira dza vaNdau subsequently developed. Fig. 14 shows the simplest version of the mbira dza vaNdau I have been able to find, compiled from three very similar examples, all old, two from Melsetter district and one a Hlengwe timbila from Chibi district. Allowing for the difference in my numbering, a technicality only introduced by the extra note added in the ndimba between notes 3 and 4 of the hexatonic scale, which means that the notes above the new one have to be renumbered, it can be seen that the scales are nearly identical. Added to this is the extra evidence, not visible in these schematic diagrams, of the actual tuning of the notes: 1, 2, 3, 4, 5, 6 of the early type Ndau mbira scale actually sound identical to 1, 2, 3, 5, 6, 7 of the ndimba heptatonic scale. The important interval to look for is that between 3 and 4 of this hexatonic scale, which was large enough, in these early mbiras, to insert another note, although the Ndau did not follow the example of the kalimba and ndimba in this respect. Ndau tuning, as can be heard in most other Ndau mbiras, is nowadays rather different; this interval is usually smaller. Note 3 of their scale now takes on the double function of substituting for note 3 of a Shona heptatonic scale, when they play a Shona song, and note 4 of the western scale, when they play "guitar" songs with I-IV-V harmonies.

To complete the comparison of the early mbira dza vaNdau with the ndimba let us merely note first the close pitch resemblance of the L hand upper ranks, and secondly the "separation" in both instruments of the right hand three notes of the lower rank. In the ndimba we know that these three notes formed a separate rank in the original kalimba, and in the mbira dza vaNdau these are the R index notes.

This similarity in mbira tuning plans between such widely separated peoples as the Ndau, Nsenga, Lozi, etc. could lead to all sorts of speculation. However, the picture is slightly simplified by the concept of the central development of the kalimba.

To deal briefly with the remaining members of the mbira dza vaNdau family of which I have experience, one of the remarkable things about this family is the relative lack of standards, either in note arrangement or in accuracy of tuning. However, having observed a large number of Ndau mbiras, I have abstracted three major types, all linked, as can be seen, by their close relationship to the "early type."

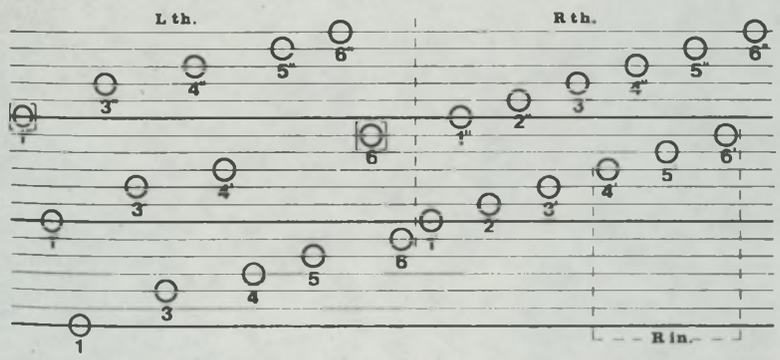


Fig. 15. Mbira dza vaNdau, Tomboji type. The bracketed notes may be omitted.

The old Tomboji or highland type, found around the Rhodesia/Mozambique border to the south of Umtali, is nowadays played mostly by the older generation, as the younger musicians have all adopted the Danda type. A third, upper rank appears in the

L hand (Fig. 15), and the notes 6 and 2′ are preserved in the lower rank, which is in keeping with the more "Shona" sound of the music played on this type.

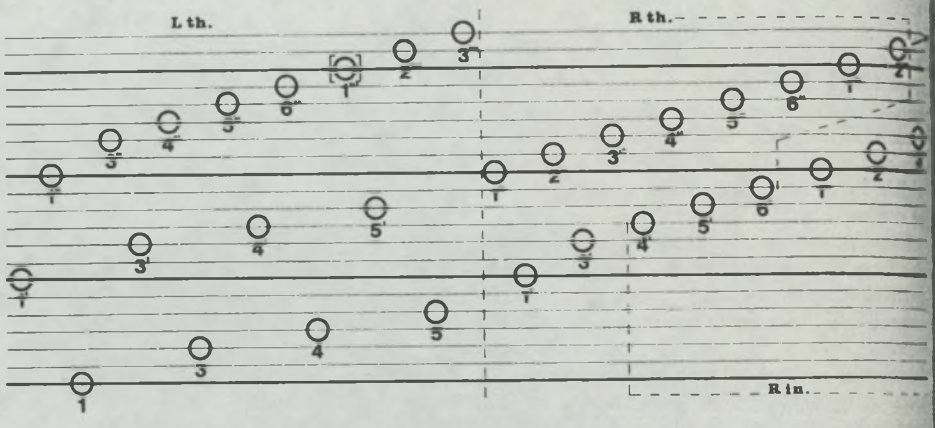


Fig. 16. Mbira dza vaNdau, Danda type.

The Danda type (Fig. 16), today by far the predominant, is an extension of this older type. Apart from extending all three ranks to the right, the most significant difference is in dropping the notes 6 and 2′, just mentioned above, which gives the lower voices a strongly tetratonic sound, which contrasts with the small intervals of the upper voices, especially the unusually small intervals between 2″ and 1″, 1″ and 6′ in the lower rank. Emphasis on these notes gives the typical "Danda" sound, which is immediately recognisable to the Ndau. L hand note 1‴ is bracketed to indicate that it is quite often omitted. I cannot go into the reasons here except to note that the interval left, 6″ to 2‴, is still something like an "Ndau whole tone", and perfectly usable.

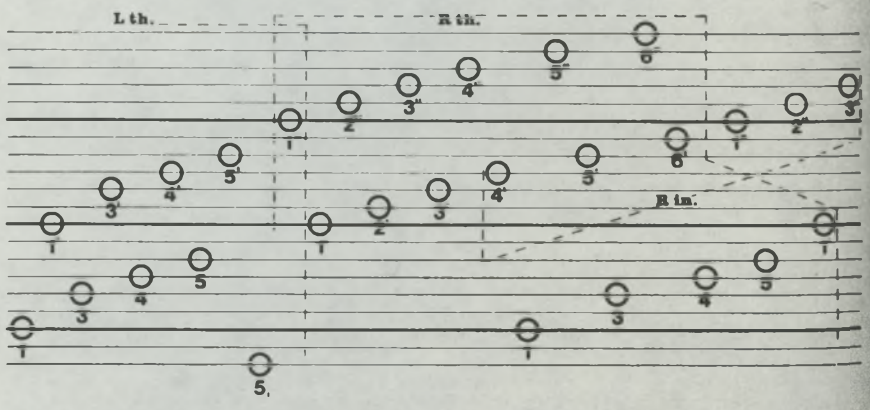


Fig. 17. Mbira dza vaNdau, Utee type. (The Utee are known to outsiders as Teve).

The Utee type (Fig. 17), of which they say "Dzakati tefatefa ino ne ino" – it is "soft" both sides, meaning that it has soft, flexible deep notes on both sides, is similar to the previous two types, except that it adds a rank below rather than above. It also has the "Danda" notes 1″, 2″ and 3″ for the R index.

The other southern types of mbira dza vaNdau are essentially similar to these, although I have not yet had the opportunity to study them closely, or even establish what the types may be.

This leaves us with only one mbira left to discuss, the dipila of the Pedi. I can say very little about this, except to present the tuning plan of a typical example (Fig. 18), and draw the reader's attention to the central nine notes, marked in black, which are acknowledged by dipila players to be the basic form of the instrument. Although this is a pentatonic instrument, the resemblance of the pattern of black notes with that of our kalimba core is evident. To all intents and purposes it looks like a direct transposition of the kalimba into a pentatonic framework. This observation, however, will need testing.

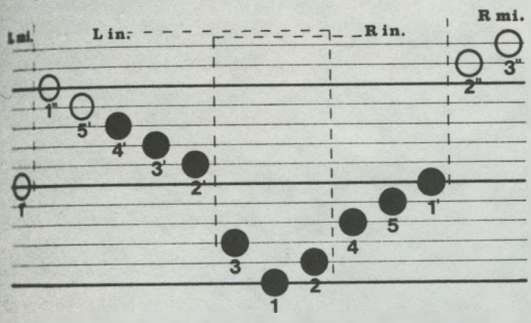


Fig. 18. Dipila.

We do know, nevertheless, that the Pedi have borrowed the heptatonic tshikona reed-pipe dance from their neighbours, the Venda, and adapted it to their pentatonic system, so if this process happened once, it may well have happened twice.

An interesting point about the dipila is that it is one of the very few mbiras in Africa that is not normally played with the thumbs. It is as if the instrument had arrived without the knowledge of its technique accompanying it, and the local people had worked out their own way of tuning and playing it. Something similar has been said to have happened in west Africa, with the big box mbiras travelling along the coast by sea, unaccompanied by their players.

Conclusion

The origin of the mbira has long been a tantalising question. As (almost) the only instrument unique to Africa, the only opinion as to its ultimate origin seems to be that of A. M. Jones[9], who believes it to be a portative version of the xylophone. I have no evidence on this point, except perhaps negative, in that in the case of the few peoples in southern Africa with whom I am acquainted who know both the mbira and the xylophone, in only one case, the Lozi, already mentioned, do they seem to be related to each other.

The Venda would be the only other possible case: the mbila deza in Fig. 6b is tuned so that note 1 is 284 v.p.s. When the tshikona reed-pipe dance music is played on the mbila deza this note becomes Pala, the same word that is used to indicate "keynote" on the Venda xylophone and the set of reed-pipes. This pitch is also practically the same as those given for Pala on the xylophone by Jones[10]. But the resemblance between mbira and xylophone must end there. That they can play the same music, at the same pitch, does not make the *instruments* related, and, in any case, we have just shown that the mbila deza has a history entirely unrelated to the xylophone.

[9] A. M. Jones, 1964.
[10] A. M. Jones, 1962.

If the evidence of these tuning plans is accepted it 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 kalimba must also be accepted as being of very great age, probably not less than a thousand years. We do not know, nor are we likely to, if the original invention took place in cane or metal. If the former, then, of course, the age of the mbira could be much more than the 1500 years or so that iron has been worked in central Africa. One would expect more evidence, however, of cane-made instruments,and they are not often found. The great majority depend heavily on metal for the primary working parts.

If the mbira is indeed a portative xylophone, and xylophones themselves are to have come from Indonesia, it would be of major importance if any evidence were discovered in Indonesia giving any hint of the peculiarities of mbira tuning in Africa, such as – bass in the centre, scales alternating left and right, doubled notes, apparent irregularities, etc. If, as is imaginable, the kalimba turns out to be the oldest surviving mbira type in Africa, then this will be the tuning plan to be searched for. In the meantime, however, I shall have to continue to assume that the mbira is original to Africa. Whether or not the kalimba is the original African mbira, I have tried to show that it is certainly original to a large part of Africa, and as such will definitely be a candidate for the honour.

BIBLIOGRAPHY

John Blacking: "Patterns of Nsenga kalimba music", *African Music*, II, 4, 1961.

Marjory Davidson: "A Lunda kalendi", *African Music*, III, 2, 1963, and III, 3, 1964.
"Some music for the Lala kankobele", *African Music*, IV, 4, 1970.

A. M. Jones: *African music in Northern Rhodesia and some other places*, Rhodes-Livingstone Museum, 1943;
"The kalimba of the Lala tribe, Northern Rhodesia", *Africa*, XX, 4, 1950;
"Venda note-names", *African Music*, III, 1, 1962;
Africa and Indonesia, E. J. Brill, Leiden, 1964.

P. R. Kirby: *The musical instruments of the native races of South Africa*, Witwatersrand University Press, Johannesburg, 1953.

Gerhard Kubik: "Generic names for the mbira", *African Music*, III, 3, 1964 and III, 4, 1965.

Carl Mauch: *The journals of Carl Mauch*, ed. E. E. Burke, National Archives of Rhodesia, 1969.

A. A. Mensah: "The music of Zumaile village, Zambia", *African Music*, IV, 4, 1970.

G. T. Nurse: "Cewa concepts of musical instruments", *African Music*, IV, 4, 1970.

Andrew Tracey: "The mbira music of Jege A. Tapera", *African Music*, II, 4, 1961;
"Three tunes for mbira dza vadzimu", *African Music*, III, 2, 1963;
"The tuning of mbira reeds", *African Music*, IV, 3, 1969;
"The matepe mbira music of Rhodesia", *African Music*, IV, 4, 1970;
How to play the mbira dza vadzimu, International Library of African Music, Roodepoort, South Africa, 1970.

Hugh Tracey: "A case for the name mbira", *African Music*, II, 4, 1961;
"The mbira class of instruments in Rhodesia (1932)", *African Music*, IV, 3, 1969.