# THE LALA KALIMBA: THE CORRELATION BETWEEN INSTRUMENT AND STYLE

*by*

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## Introduction

Just as I started studying ethnomusicology in 1979, Paul Berliner's famous book, *The Soul of Mbira* (1978) was published. The book not only demonstrated the relatively new concept of placing an instrument in its musical and social context, but also expressed to a large audience the author's profound love and respect for a particular musical culture. The records accompanying the book forever awakened in me the love for the lamellophone and its music.

Once I got the opportunity to go to Zambia to conduct field research and stay with the Lala people for several months, I discovered much to my delight that the kalimba — the lamellophone found there — took an important place in the musical culture of the Lala. The richness and variety of the music and the open-heartedness of the musicians turned out to be a revelation to me. Moreover, it became clear that through the kalimba other aspects of the Lala society could be exposed.

The Lala live near Serenje district, Central Province, Zambia. The field work in question was carried out in 1981 in and around Chibale, a small town 40 kilometers south of Serenje. It was conducted together with my fellow-student Jan IJzermans and was part of a larger research project initiated by Dr. M.I. Mapoma of the Institute for African Studies in Lusaka. The project goal was the documentation of the musical instruments, their use, and the corresponding musical types. During the field work two special subjects were taken in hand: the study of the *Cibombe* and *Ipupo* ceremonies, and the study of the kalimba.

In the kalimba case it turned out that there were two types of kalimba — the *Kankobele* and the *Ndandi* — which at first sight did not differ much, but upon hearing, they demonstrated differing musical styles. Because of the varying styles on the two instruments, the notion arose that the kalimba could be an indicator for social and historical processes. Once at home in Amsterdam, I realized the music was crucial in this regard. My final paper was built around the assumption that the adaptation of a musical instrument is a confrontation between the instrument's technical possibilities and limitations on the one hand, and musical stylistic habits and influences on the other hand.

This article can be considered a plea for an integrated approach in which the musical material culture — the instruments — and the music itself are studied in close connection to each other. This approach is triggered by the fact that the Kankobele was

already part of the Lala musical culture for centuries, while the Ndandi was introduced in Chibale around 1930. Did the Ndandi bring along a new musical style? How was the instrument absorbed in the musical culture? The answers to these questions might be found in the music itself. I expect this case-study to be a source for ideas and suggestions for further research.

**The Lala kalimba types: Kankobele and Ndandi**

The Lala kalimba — meaning "small musical instrument" — is a musical instrument that can be classified as a lamellophone (Latin: lamella = small, thin plate), an idiophone in board form with wired-on metal keys which are plucked by the thumbs of the player. The keys are usually made of flattened bicycle spokes. At the top end the keys rest on the raised edge of a wooden soundboard, clasped between a metal cross-bar and a metal bridge, placed square on the soundboard. The soundboard measures no more than 16 by 12 centimeters. Eight keys are mounted in a base-row, two keys are slightly curved upwards and stick out above the base-row.

For the amplification and (desired) distortion of the sound there are two possibilities. In most cases the soundboard contains a small hole covered underneath by a membrane made of spider silk. The overall sound is amplified by holding the soundboard on top of a gourd or tin can, often connected to the instrument by a thin string. When playing the instrument the membrane vibrates, activated largely by the air within the gourd resonator, thus creating a buzzing sound. In the other, less common method of sound distortion a much thicker soundboard (approx. 3 cm instead of 3 mm) is hollowed out to function as a resonator. The distortion is generated by a number of small, loose rings of thin metal (*amaswau*) curved around a thin iron bar, mounted at the bottom end of the soundboard.

The name kalimba is broadly used as a generic name for the lamellophone by the Lala and by other people in large parts of Zambia and adjacent areas in Malawi and central Mozambique. Further south the instrument is referred to as karimba. The Lala know two types of kalimba: the Kankobele and the Ndandi.

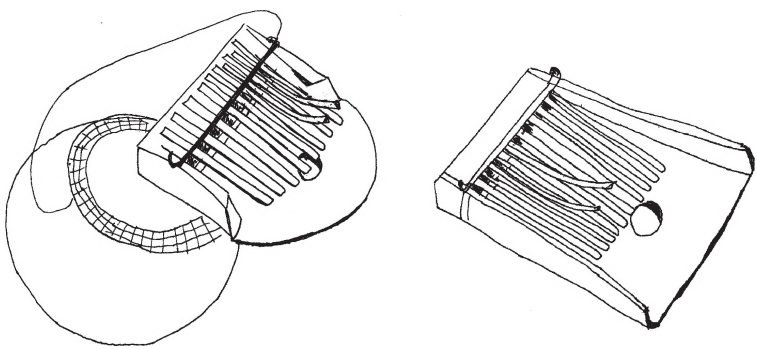

Fig. 1. Kankobele (left) and Ndandi (right)

The majority of the instruments I came across were Kankobele, which is slightly smaller than the Ndandi. The bottom end of its soundboard is rounded, while that of the Ndandi is rectangular. The Kankobele has 10 keys, the Ndandi 13. In principle, the kalimba is used to provide self-accompaniment to a song.

**Kalimba tuning plans**

The most distinctive difference between the Kankobele and the Ndandi is only observable by actually playing the instruments: their tuning plans differ fundamentally. The tuning plan — or the layout of the keys (J. Blacking 1961: 27) — is the way the keys are arranged on the instrument in terms of pitch. In Figure 2 the tuning plans of the Kankobele and Ndandi are visualized. To facilitate the analysis, each key is given a specific number. This numbering is arbitrary and is not used by the musicians themselves.

For the Kankobele keys 1 — 8 form the base-row; keys 9 and 10 are the upper keys. Keys 1 — 4 are played with the left thumb, keys 5 — 10 with the right thumb. Only one of the Kankobele musicians occasionally used his right forefinger to play the upper keys. One particular Kankobele had eleven keys, with one extra upper key left of the other two.

For the Ndandi keys 1 — 11 form the base-row; keys 12 and 13 are the upper keys. Keys 1 — 5 and 12 & 13 are played with the left thumb, keys 5 — 11 with the right thumb. Key 5 can be played either with the right or with the left thumb.

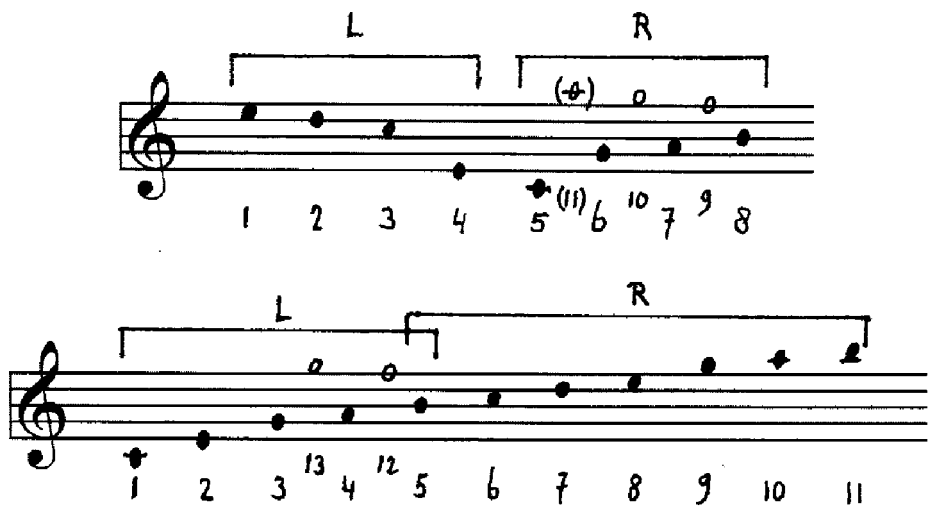


Fig. 2. Tuning plan of the Kankobele (above) and the Ndandi (below)
L = left thumb R = right thumb; black notes = base-row, white notes = upper keys

The difference in tuning plans is striking. The Kankobele base-row is designed as two more or less symmetrical halves: the lower keys are positioned in the centre, while the higher keys are mounted on the left and right sides of the instrument. The tuning plan of the Ndandi is based on a linear pitch order, except for the two upper keys. Moreover, on the Ndandi there are two keys (9 and 13) that produce the same note.

The absolute pitch varies for both Kankobele and Ndandi. The pitch of the lowest key of the recorded Kankobeles for example varies within a major second around F (below middle C); that of the Ndandi moves slightly lower around D with roughly the same margin. The relative tuning of individual keys can differ slightly from one instrument to another. In this article the tuning plans and the music are notated as if the instruments were tuned on the same pitch, to facilitate the comparison between the different instruments.

**Assembling of the keys and tuning process**

In the assembling of the keys on the Kankobele the builder follows a certain order. He starts with the manufacturing and tuning of key number 1. When this key is ready and has the desired pitch, he makes key number 8, which is tuned a perfect fourth below key 1. Then, one by one and in this order, keys 2, 3 and 4, i.e. the left part of the base-row, are assembled. Each key is tuned in relation to its predecessor. Next, key 7 is made and tuned in relation to key 8. Then, the remaining keys 6 and 5 are realized in the same order. During the process the builder repeatedly checks whether the intervals between the left part and the right part of the base-row are correct, in particular between keys 7 and 2, and keys 6 and 3. These should form perfect fourths, just like keys 8 and 1 (see Figure 2). Finally, the two upper keys are made and tuned. Thus, the assembling and tuning of the keys reveals that the conception of the tuning plan of the Kankobele is not a one way linear activity, but rather a recursive process in which the two halves of the base-row are created in relation to each other.

One player said that, after purchasing his instrument, he shifted some keys of the base-row a little bit to bring them more in line with the other keys. He indicated that for him a smooth base-row with keys more or less equal in length was crucial. Consequently, his fourths were not as perfect as they should be. The concept of the tuning for him was obviously more important than the precise tuning of the keys. Builders as well as musicians have a rather intimate relation with their instrument. As part of this intimacy sometimes names are given to individual keys. This was the case with two players, one of them also being an instrument builder.

For the Kankobele (see Figure 3) the names of the opposite paired keys are the same. The higher keys of these pairs receive the addition 'small', the lower keys 'large'. This applies to the pairs 7-2, 6-3 and 5-4. The naming of these keys underlines the division of the Kankobele keys in two, more or less, mirrored halves. The keys 1, 8, 9 and 10 have the same name (caterpillar), according to our informants, without differentiating between the lower and higher keys.

The interpretation of the names turned out to be rather difficult. One informant

said the key called 'mixer' should blend together with a key called 'owner'. But he could not explain this in more detail. The analysis of the music will give us a little more understanding, as will be seen later on.

| Left half | | | Right half | | |
|---|---|---|---|---|---|
| *Key* | *Name* | *Meaning* | *Key* | *Name* | *Meaning* |
| 1 | *Mpelebele* | caterpillar | 8 | *Mpelebele* | caterpillar |
| 2 | *Lwela mwaice* | small owner | 7 | *Lwela mukulu* | large owner |
| 3 | *Chilufya mwaice/* | small mixer/ | 6 | *Chilufya mukulu/* | large mixer/ |
| | *Nkonka mwaice* | small younger brother | | *Nkonka ijikulu* | large younger brother |
| 4 | *Mbomba mwaice* | small elder brother | 5 | *Mbomba mukulu* | large elder brother |
| | | | 9 | *Mpelebele* | caterpillar |
| | | | 10 | *Mpelebele* | caterpillar |

Fig. 3. Naming of Lala Kankobele keys

The tuning plan of the eight base-row keys of the Kankobele is common in large parts of Zimbabwe, Mozambique, Malawi, Zambia and Congo (DRC). This basic structure is also part of more elaborate tuning plans like that of the Shona *Mbira dza Vadzimu*. In this sense it can be considered a "core tuning plan" from which others might have been derived (A. Tracey 1972: 85; 1974: 4). A recent study covers a seven-keyed lamellophone played by the Mwera from SE Tanzania / NE Mozambique, which shows a similar tuning plan with the lowest keys in the centre (Reuster-Jahn 2007: 11).

As for the Ndandi, the assembling and tuning of the keys follows a totally different order. From the top down: key 9 first, then key 8 up to and including key 1, then the keys 10 (derived from key 9) and 11, and finally keys 12 and 13. The making of a Ndandi thus follows a linear, tone-scale (descending) principle.

### The Kankobele and Ndandi Dyads

At certain points during a song, Kankobele musicians strike both thumbs together to play a dyad. When analyzing transcriptions of Kankobele songs, it turns out that only a small portion of all the dyads possible is used. The dyads that are used on a regular basis are fourths, a fifth and an octave (see Figure 4).

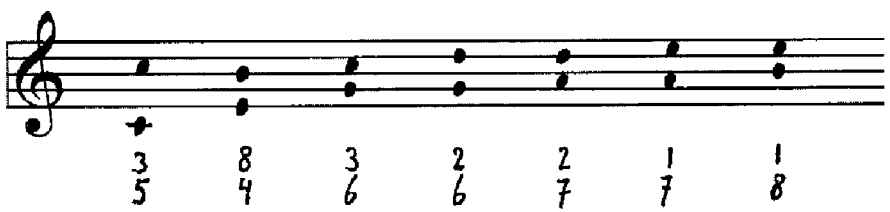


Fig. 4. Core dyads in Kankobele accompaniment

Three of these core dyads are the result of playing 'mirror' keys on each playing half: dyad 6-3, dyad 7-2, and dyad 8-1. This also illustrates the tuning procedure in which the opposite fourths between left and right are tuned mutually. The strong musical relation between these keys is also illustrated by the naming of the key pairs. Dyad 5-4 is never used: the two lowest keys of each half are not part of the mirrored fourth symmetry. The two upper keys 9 and 10 are very seldom used in dyads.

When mirroring the two halves and allocating the keys — as it were — directly opposite each other, the opposite keys form the fourth dyads (except the 5-4 pair). When subsequently the right half is shifted one position to the left, the opposite keys form the dyads 4-8, 6-2, 7-1 and 5-3. These are the fifth and octave dyads (see Figure 5).

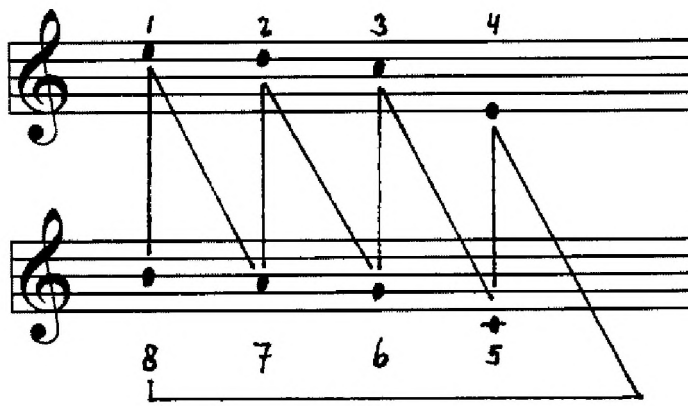


Fig. 5. Kankobele: mirrored and shifted dyad combinations

Keys 5 and 4, excluded as they are from the mirrored dyadic symmetry, turn out to play an important role in the shifted dyadic symmetry.

It is obvious that the combinations of 'mirrored' and 'mirrored and shifted' keys form the core dyads. They can be produced with a minimum of thumb movements.

For the Ndandi, dyads occur in the form of fourths in the key combinations 3-6, 5-8, 6-12 and 7-13, and as fifths in the combinations 3-7 and 4-8. The lower keys 1 and 2, and the higher keys 9, 10 and 11, are not used at all in the recorded songs. This exclusion is an important factor in the analysis, as we will see later.

**Categories of Lala kalimba music**

In general, the Lala divide their kalimba repertoire into two groups. The first consists of arranged songs that were originally performed in combination with a dance, accompanied by instruments other than a kalimba. An example of a source for kalimba music is the Cibombe ceremony, in which a person is received into the ranks of the possessed (*Ngwilwa*). During this ceremony dance songs are performed

with accompaniment of three drums to support the dancer(s). The kalimba players often belong to these Ngwilwa themselves. Many kalimba songs that were originally dance songs can be categorized as 'story songs', where spoken words and sung refrains succeed each other. The text of a story song is often full of commentary about recent events and/or other persons.

The second group is formed by old kalimba compositions. According to our informants, most of these songs were handed down to them. These songs are often hunters' songs — sung during the moments of rest in the course of a hunting trip, which can last several days — or *citemene* songs. Citemene is a traditional agricultural method in which the trees on an uncultivated piece of ground, at a great distance from the village, are cut down. The wood is dried, put in circles or rows, and then burned, whereupon the seeds are sown in the ashes. The men who cut the trees live near the spot for several weeks, and pass the time by singing songs. The kalimba is very suitable as a musical instrument for these purposes, as it is small and easy to carry.

The kalimba is exclusively played by men. It is played in an intimate atmosphere, when the player is alone, or surrounded by his close family or a few good friends. It is never used at feasts or ceremonies. As a musician put it: "I use the kalimba whenever I feel like it, particularly before bed-time, or for accompaniment when walking, as if you have somebody who is talking to you".

**Characteristics of Lala kalimba music**

A typical kalimba song has the following structure: a) a short instrumental introduction, b) the actual song with instrumental interlude (*teka*), c) a short instrumental coda. The instrumental introduction and coda are played slower and rhythmically freer than the song itself. They start slowly, become faster, and slow down again. Before the singing starts, part of the instrumental accompaniment pattern is played solo once or twice in strict tempo. In kalimba songs one or, more commonly, two musical phrases — an antecedent and a consequent phrase — are sung repeatedly. In the latter case the antecedent phrase comes with a different text each time, while the consequent phrase has a fixed text throughout the song, thus functioning as a refrain. When other people are present, they will sing along with the consequent phrase.

During the song, the musician will usually play an instrumental interlude (teka) in which the musician varies on the instrumental accompaniment pattern.

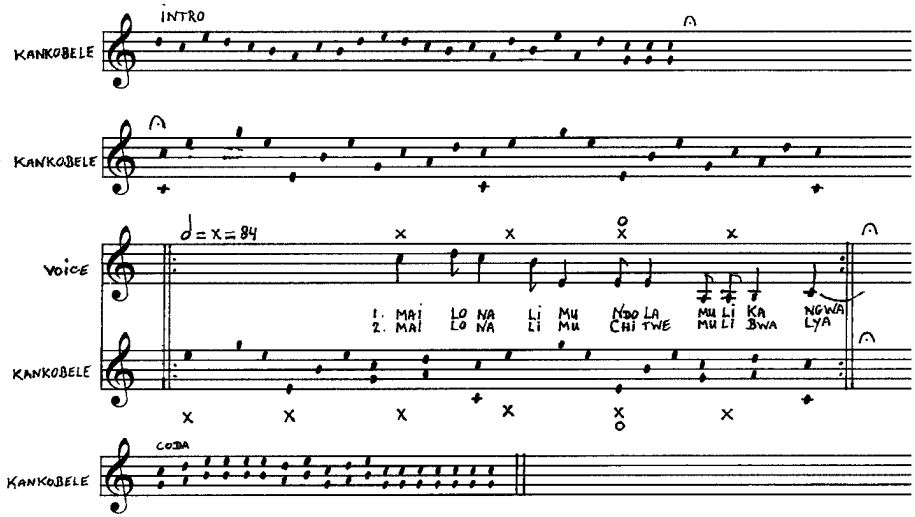


Fig. 6. Kankobele song "Mailo nali mu Ndola"
the beat is marked by an X

| | |
|---|---|
| *mailo nali mu Ndola muli Kangwa* | yesterday I was in Ndola with mister Kangwa |
| *mailo nali mu Chitwe muli Bwalya* | yesterday I was in Chitwe with mister Bwalya |

(The text seems to have a double meaning — in Chibale, "going to Ndola" used to mean going for an illegal hunting trip.)

In Lala kalimba music there are two basic styles (types) in terms of musical relationship between the voice and the instrument. These types cannot be exclusively connected with the two categories of kalimba music mentioned above. In the **first type**, the voice and the instrument are rhythmically and melodically different. In its basic appearance the accompaniment is a regular pattern built on the smallest note values of the sung melody. Broken triads and other chord figures usually appear, sometimes expanded to a form of harmonic progression. Dyads are used to underline the rhythmic contrast with the voice. For example, when a series of quavers (eight notes) on the kalimba is interrupted by a crotchet (quarter note), this note is marked by a dyad. When this pattern is played in the introduction, teka, or coda the dyad is played as two consecutive notes in quavers (see Figure 6). Without the voice the accentuation has no purpose.

The fragment of Figure 6 features an elaborate and complex variant of the first style. Lala kalimba music — like most African music — is characterized by a certain rhythmic ambiguity. This is often evoked by merging two phrases that differ in length but share the same meter. In Figure 6 the sung phrase has a span of four beats (marked by X above the voice. The accompaniment however consists of a three-beat phrase played twice in each cycle (marked by X below the kalimba part). To underline the rhythmic ambiguity, the voice starts on the last beat of the kalimba phrase. Due to

the alternation of crotchets and quavers in the voice, an interlocking pattern emerges in which the two parts coincide on the beat only once (marked by O). The combined phrases produce an apparently irregular pulse. Nketia refers to this phenomenon as 'spacing' (1974: 134). Dyads are used to enforce the contrast between the voice and the accompaniment.

In the **second type** the voice and the accompaniment correspond rhythmically. Each syllable of the text is provided with one note by the kalimba. The accompaniment follows the melodic line of the voice, playing a counterpart in which dyads occur to mark the structure, mainly in the form of parallel fourths and fifths. Often dyads are used to emphasize the steps in the melody and the underlying pulse. When the instrument is playing alone, triadic patterns occur (see Figure 7).

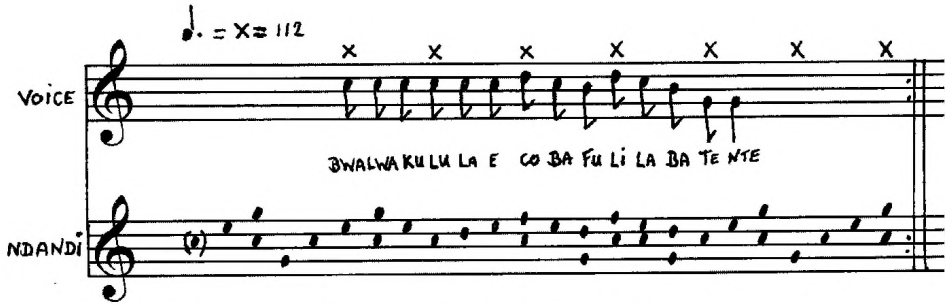


Fig. 7. Ndandi song "Bwalwa kulula"

| | |
|---|---|
| *bwalwa kulula* | the beer is strong |
| *eco ba fulila ba Tente* | and that is why mister Tente took off his clothes |

The song refers to a mister Tente, ending up with a woman not his own after drinking too much beer.

The vast majority of Kankobele songs predominantly use the first type of accompaniment, sometimes with small sections from the second type. The Ndandi songs in general use the more homophonic style. Triadic patterns may be used here, but never together with the voice.

In her study on the Lala Kankobele Marjory Davidson distinguished three categories of accompaniment, that is: harmonic figuration, plain chordal accompaniment with decoration, and a mixture of the two (1970: 105). Her examples of the first category are in fact regular triadic patterns in accordance with my first type; the songs with chordal accompaniment correspond to my second type, while her example of the mixed category can be classified with the second type.

Jones mentions the left thumb reduplicating the melody in Lala Kankobele music (A.M. Jones 1950: 333). The example referred to by Jones however can be classified as a relation of the second type between voice and accompaniment (accompaniment more or less following the voice in terms of rhythm and melody).

Marjory Davidson made an intriguing remark about the Kankobele and the

Ndandi: "The Kankobele is the beginner's instrument. When the player is sufficiently skilled, he may go on to study the Ndandi" (1970: 103). This observation, however, does not account for the Chibale situation and was not confirmed by the Chibale informants.

**Tonality and melodic structure**

In almost all Lala kalimba songs the sustained last note of the (consecutive) sung phrase can be considered the fundamental tone: it is for the singer both tonal target and tonal haven. In songs of the first type this tone also functions as a pivot for the kalimba. In its simplest form the accompaniment is a regular pattern in the form of a broken triad with the pivot note placed on the beat. In more irregular patterns the pivot note is often played off-beat and becomes stressed by a dyad instead (in figure 6: the two octave dyads).

In the second type the musician underlines the tonal centre by playing broken triads *after* the final note of the sung phrase, using the final note as fundamental (see figure 7).

**Kankobele**

Only two keys can act as fundamental, that is either key 5 or key 7. It will not come as a surprise that key 5 is our Mbomba mukulu, the (large) 'elder brother', and key 7 is our Lwela mukulu, the (large) 'owner'. The keys that can be characterized as fundamental are the ones that seem to have the highest status in terms of naming.

In many songs dyads are used frequently in the instrumental introduction, coda and teka to point out the conclusion of the musical phrase, and — as mentioned above — in the accompaniment of the voice. At certain moments a form of harmonic progression evolves when consecutive dyads are played in a setting of broken triads. In figure 6 for example a harmonic scheme is recognizable which consists of four steps in (mainly) parallel movement:

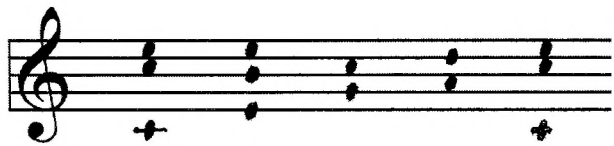

Fig. 8. Characteristic harmonic progression in Kankobele accompaniment

Parallel harmonic progression of this kind is common to the basic eight-keyed kalimba as played north of the Zambezi (A. Tracey 1970: 39).

The variety in melodic structure is large both considering range and interval sequence. Typical are melodic leaps of a fourth and a fifth (see the downward leaps of a fifth in figure 6). Most melodies seem to be built on five different notes only (pentatonic scale): the 4th and the 6th step on the fundamental are skipped, or only used as auxiliary notes. As said earlier, keys 5 or 7 can be taken as fundamentals.

**Ndandi**

Ndandi songs are more limited in terms of melodic and rhythmic structure. Typical Ndandi melodies lack steps bigger than a third. The overall use of a pentatonic scale however is similar to the Kankobele: the melodic material is also built on five different notes.

Another difference is the way the keys are used: the Ndandi players only use a selection of their keys. In the recorded songs the Ndandi players don't use keys 1, 2, 9, 10 and 11 at all. The musicians only use eight of their thirteen keys available, which is the middle section exclusively. The players leave untouched key 9, but always chose the — identically tuned — key 13 instead, as we observed during the recordings. It seems the Ndandi musicians leave many of the possibilities of their instrument unused.

The different tuning plan of the Ndandi calls for a different technique. A parallel sequence of dyads played on the Ndandi base-row demands parallel movement of the thumbs (Kankobele: contrary movement). This natural law, however, is neutralized by the players. By not using the outer keys and using the upper keys 12 and 13 instead, the musician is able to play parallel sequences in contrary motion.

Dyads are used differently by the Ndandi player. In the accompaniment dyads are applied to underline either the beat or the course of the melody. This is very rare in Kankobele music, where dyads have an important role in creating contrast in a structural and rhythmic sense.

**The Kankobele versus the Ndandi**

Although the vast majority of kalimba instruments were Kankobele, the recordings of Ndandi music offer interesting information in view of a comparison between both instruments. The most striking musical differences are listed in this table:

| | ***Kankobele*** | ***Ndandi*** |
|---|---|---|
| relation voice/ accompaniment | mainly first type | mainly second type |
| usage of keys | all keys used | only part of the keys used |
| usage of dyads | creating structural and rhythmic contrast | underlining fundamental / marking melody |
| melodic structure | alternating small and big steps | only small steps |
| harmonic progression | present in many songs | not present |

According to several informants, the Ndandi was introduced in Chibale around 1930 and came to the Lala from the west. The instrument had its greatest popularity between 1935 and 1945. When it was introduced, it already had the two upper keys mounted. But

as direct result of its introduction two upper keys were added to the Kankobele, which till then only had the base-row, the informants said. This is in line with A.M. Jones' observations, who said the Lala Kankobele had eight keys in 1929 and had ten keys shortly before 1950 (A.M. Jones 1950: 324).

Another fact mentioned by our informants was this: playing both instruments turned out to be too difficult. This is obviously caused by the fundamentally different tuning plans. Apparently the Ndandi was played by the people who introduced the instrument and by new beginners. The existing Kankobele players did not take over the new instrument.

The Kankobele upper keys did not come into existence because Ndandi players wanted them on the instrument, since they did not play Kankobele too. There must have been other reasons. Maybe the two upper keys were added simply in imitation. Or, the introduction of the Ndandi went hand in hand with a new musical style not known before: the extra keys were added for musical reasons. Or maybe both developments took place simultaneously.

Musically speaking, the two upper keys widened the range of the Kankobele and offered the possibility of playing other musical patterns. In theory, it enabled the playing of fourths dyads on top of the former highest keys (key combinations 3-9 and 2-10). The actual use of the upper keys in the recorded songs gives us some important clues in this perspective. The upper keys stay untouched in most songs! When used, they are either part of a broken triad or appear in instrumental passages. They are never used in dyads, at least not when the player is singing. As we saw earlier, dyads have an important functional role in terms of melodic and rhythmic structure. The upper keys did not have this role in the recorded songs, even though this might be expected according to the tuning plan. The dyads 3-9 and 2-10 simply do not occur. On the base of the recorded Kankobele songs it can be concluded that the upper keys have a marginal role in the repertoire, and when used have a limited musical functionality.

The one Kankobele with eleven keys offers another clue. The recordings of the music made by the owner of this particular instrument reveal the use of a heptatonic scale. The player in question said that he added the extra key himself because he had the feeling "something was missing". This confirms the assumption that extra keys tend to be added to cope with specific musical demands.

If adaptation to a new musical style actually was the main trigger for the extension of the Kankobele, this new musical style must to a certain extent have been improper in relation to the innate musical tradition of that time. For neither the style itself, nor the use of the extension took hold in the long term. The musical style was linked to the imported instrument only and had not enough resemblance to the inherent Lala musical culture of that time. Because of this the Ndandi could not acquire an important position in the musical heritage.

A tentative reconstruction could be as follows. The Ndandi players came to Chibale and brought along their music together with their instrument. They popularized the instrument and at first stimulated new players. The Kankobele players left the Ndandi

aside because of the contrary tuning plan and, perhaps, because of the lack of interest in playing the new musical style (type 2).

Instead, the Kankobele received an extension in the form of two upper keys. The addition seemed logical, because it was in line with its internal interval structure (mirrored fourths). Moreover, it widened the possibilities and made it possible to play certain stylistic elements of the new Ndandi music.

But the Ndandi repertoire was taken up as an odd musical style, based as it was on different premises, particularly the relation between instrumental accompaniment and voice. Meanwhile, the Kankobele turned out to be a versatile instrument which could cover a wide range of musical ideas.

In the course of time the Ndandi dissolved as it were. Its original music was hardly incorporated into the Lala repertoire. Eventually, the players lost the ability to use the possibilities of their instrument. This was how the Ndandi was played in Chibale in 1981.

**The Nsenga kalimba**

A case study of the Nsenga kalimba by John Blacking offers the possibility of comparing the Lala kalimba with similar instruments of a related people. Blacking's recordings were made in Petauke district, 160 kilometers SE of Chibale on the other side of the Luangwa River. The Nsenga also use the name kalimba as a generic name for their lamellophone and — like the Lala — distinguish two types: the Kalimba (here written with capital) and the Ndimba. Hence they use the same name for the instrument in general and for one specific type. The Kalimba resembles the Kankobele, with exactly the same base-row tuning plan, but with 12 to 14 keys instead of 10. It has a second pair of upper keys on the left side of the instrument. (Occasionally each side has one more upper key). As to the Ndimba, it has 14 keys and resembles the Ndandi, with similar tuning plan.

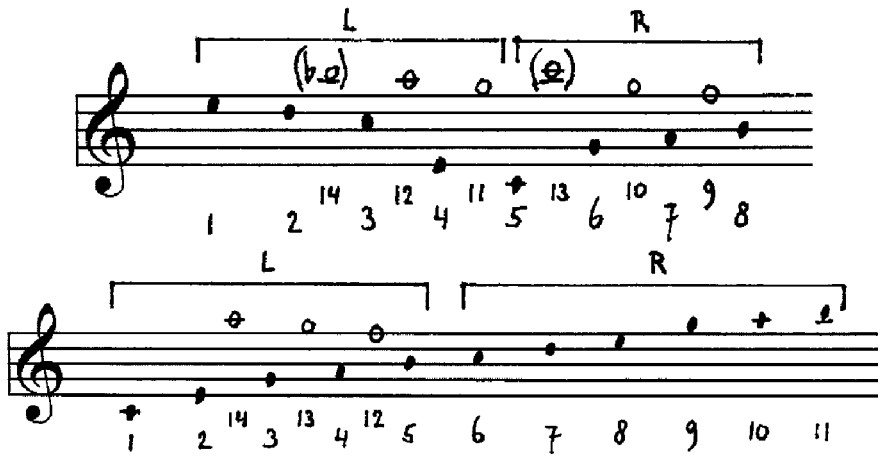


Fig. 9. Tuning plan of the Nsenga Kalimba (above) and Ndimba (below)

According to Blacking, the Nsenga know two main categories of kalimba music. In the first, the instrument is played solo without voice. These so called 'walking songs' are exclusively played on the Kalimba and consist of regular triadic patterns, repeated over and over again with small variations.

In the second category the instrument, whether Kalimba or Ndimba, is used together with the voice. These songs are generally played in homophonic style, without structural contrast between voice and accompaniment (= Lala style/type 2). In some songs though, voice and accompaniment do show a certain rhythmic and melodic autonomy. This for instance is the case for songs No. XII and XIV transcribed by Blacking (1961: 39-40).

According to Blacking "the Kalimba is most frequently played by youths, who repeat simple phrases over and over again, as they walk alone, or with friends [...]. The Ndimba seems to be an instrument for adults who are semi-professional [...].The layout of its keys renders it more suitable for melodic work than the Kalimba, which is ideally suited for 'harmonic' figuration" (1961: 28). This has an equivalent in Davidson's previously mentioned observation of the Kankobele being the beginner's instrument. My conclusion, after analyzing Blacking's transcriptions, is different: the Kalimba and Ndimba share more or less the same level of complexity, at least in the songs with accompaniment. The walking songs are relatively simple indeed. It seems Blacking's qualifications of the beginner's instrument refer to these walking songs in particular, and not to the Kalimba songs with accompaniment. On musical grounds this hierarchic distinction between the two Nsenga lamellophone types seems untenable.

In Nsenga music duple and triple rhythm are often alternated within one phrase (see Figure 10). The musicians tend to use rhythmic contrast successively in time and not simultaneously between voice and accompaniment, as do the Lala.

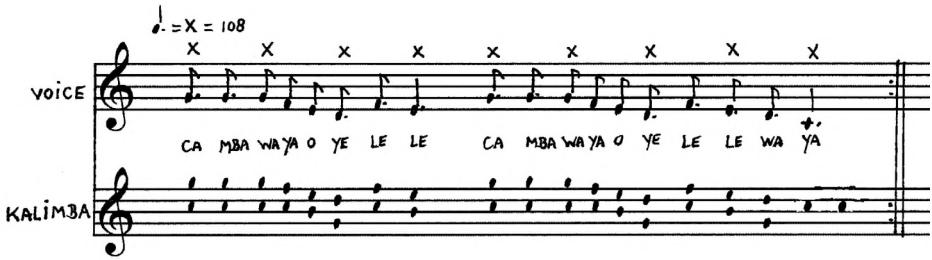


Fig. 10. Nsenga Kalimba music – example XI, first phrase (Blacking 1961: 39)

A closer look at Blacking's transcriptions of Nsenga Kalimba music reveals other differences. The Kalimba is following the melody and the melody is sung in an overall heptatonic scale. The Nsenga hardly use the lowest keys 4 and 5. They just play the instrument from key 6 up.

One conclusion can be drawn: instrumental similarity and common tuning plans do not imply resemblance on a musical level. The analysis of the Lala Kankobele music shows that harmonic figuration is combined with other contrasting elements such as

dyads, while using all the keys of the base-row. The Nsenga Kalimba, however, reveals doubling of the voice leaving out the lowest keys of the base-row.

Playing series of parallel dyads on the Kalimba is challenging in terms of fingering. Its tuning plan is primarily fit for producing triadic patterns and incidental dyads, and not so much for doubling the melody. Blacking's remark that the Kalimba is not suitable for melodic work is correct. This could be one reason for the limited use of the available keys: the lowest keys are hard to fit in when doubling the voice. One may conclude that the technical requirements brought about by a homophonic style are not in agreement with the tuning plan of the instrument.

The available transcriptions reveal a certain dichotomy between the musical style of the Nsenga and the way the Kalimba is used. Maybe at any time the Nsenga were influenced by a new musical style which caused this apparent contrast. A certain similarity with the Lala case is looming up. As we saw before, a possible reason for the position of the Ndandi could have been the missing connection between the existing musical culture and the physical qualities of the new instrument.

## Epilogue

By observing the instrument and its music in mutual perspective we may learn more about the adaptation processes in which musical instruments and musical styles were handed down from one people to the other. In an ideal situation the ethnomusicologist is able to reveal how instruments and musical styles developed in time. This implies an iterative, long term research method in which information is collected on the same spot at certain time intervals. In practice, however, only a tentative reconstruction based on an extensive analysis of the musical and contextual information is feasible.

The introduction of a new musical instrument often goes hand in hand with a formerly unknown musical technique and musical style. In my analysis I elaborated the assumption that a successful incorporation of both material and immaterial musical elements can only be realized when the imported elements harmonize with the existing musical culture. Only the congruous elements are incorporated. My article illustrates that stylistic influences may lead to a selective use of the instrument's functional possibilities.

Many of the people living in Zambia and neighbouring countries have a common origin in the great Luba-Lunda states that ruled large parts of present-day Congo and Angola. This also applies to the Lala, who went through a migration process that started in the 18th century and came to an end at the beginning of the 20th century, covering a distance of some 2000 kilometers. The Lala area of origin can be situated in the northwest of Angola. Its path went in a southeast direction through the Copperbelt, next to Lake Bangweulu, and from there on southward to their present habitat. Almost all the people that play the Kankobele type of kalimba — not only neighbouring people like the Lenje, Bisa, Bemba, Lambe and Nsenga, but also more remote people like the Tonga, Ila and Lozi — share this common Luba-Lunda origin. Given this connection, a comparative research on the similarities and dissimilarities in the music made on these

instruments would be an intriguing and fascinating task.

The kalimba recordings made in Chibale uncovered a musical microcosm in which — in the case of the Kankobele lamellophone — instrument and music form an indissoluble unity. Sadly enough, this highly developed musical culture is disappearing rapidly. Recent field work in the Zambezi Valley among the Batonga shows only a few musicians still active and almost no young people learning to play the instrument (Baird 2009 CD booklet: 4-6). I wonder what is left of the overwhelming Lala culture as was revealed to us in the form of the powerful music made by the wonderful people from Chibale. It truly is a rich heritage of which the Lala should be very proud.

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**CDs**

The following recordings are of interest in relation to the Kankobele:

Baird, Michael.
1998 CD, *Kalimba & Kalumbu Songs, Northern Rhodesia, Zambia 1952 & 1957*, SWP Records / International Library of African Music SWP 010.
2009 CD, *The Kankobela of the Batonga, Vol.1*, SWP Records SWP 036.