

GANDA XYLOPHONE MUSIC: ANOTHER APPROACH

by

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Over a period of many years musicologists have interested themselves in the *Akadinda* and *Amadinda* techniques of the Ganda people and a growing number of published articles give mention of, or are devoted to these two instruments. Of these, the latest and perhaps the most impressive for the amount of data given concerning both styles, is Gerhard Kubik's paper "Composition techniques in Kiganda xylophone music"¹, where he gives no less than 102 transcriptions and a great deal of ancillary information.

No musicologist can study Ganda instrumental practice for long — if he lives in that region — before discovering that all the instrumental pieces he hears are, in fact, renderings of vocal compositions or are, in the case of drumming, inseparably bound up with song and other forms of speech communication. To study the resulting instrumental sound patterns solely by analysis of their intrinsic qualities without searching for the route by which both music and speech through song have been realised in physical terms by striking, blowing or plucking instruments is to ignore what I consider to be the real issue — one closely connected with fundamental processes of music composition. This is no new view. Many of Wachsmann's findings (see bibliography) give evidence of the same interest and in 1964 E. K. K. Sempebwa — an articulate and musical Ganda who is himself a performer on the *Amadinda* — was drawing attention to the need to approach the study of Ganda xylophone styles from this angle.²

In a sense, the aims of this paper are similar to those stated by Kubik, namely "to show by what factors the individual parts of Kiganda xylophone music are predetermined and to what extent they are interdependent". My approach, however, will be to compare the internal structure of the xylophone parts with known song texts which are related to them. I hope to demonstrate that the instrumental structures are closely related to the musico-phonological structures of the songs. I believe that such a relationship will be found inherent to all tuned instrument styles in Ganda culture and hope that this paper will contribute further to our understanding of this rich field of musical activity. In writing it I have drawn on much of Kubik's useful data, supplementing it where necessary with data from recordings and impressions garnered during a period of four years (1964-68) when I worked as a music teacher in Uganda. Though much of my own work since then has been concerned with the analysis of the instrumental style of other Ganda instruments — the family of *Ndere* (notched flutes) and their related songs — it has been instructive to examine in some detail the two xylophone styles and find that what seems to be the same basic process of instrumentalisation of song is at work there. A sample tape of relevant material has been prepared from my collection and may be consulted in the archives of the School of Scottish Studies, Edinburgh University.

GANDA SPEECH AND SONG

Some discussion of the characteristics of the Ganda language (*Luganda*) is necessary at the outset, though there is little room to do more than summarise the findings of linguists to date.³

1. *African Music*, Vol. IV, No 4, 1969. I will refer to this paper so frequently it will be necessary for me to quote the page number only in all future references.

2. Discussion following a paper read by G. Kubik at a meeting of the Royal Anthropological Institute, London, 1964. Kubik, 1964.

3. More detailed information can be found in Ashton (1954), Tucker (1962), and in the preface of any *Luganda* dictionary (e.g., Snoxall, 1967).

Tone

Luganda is a tone language with high, low and falling tones. Absolute distances between various tones are not stable, however, and vary in different contexts. Whereas relative differences between tones will be preserved in isolation, the intonation of a whole tone group will perturb the realisation of some tones. In some of the song texts I discuss the second of two high tones is lowered in relation to the first: a factor known to linguists as "downstep".

Syllable values

Long and short syllables are found in *Luganda*. Long syllables always have twice the length of short ones and are analysed as containing two *morae* (i.e. tone bearing units). For the purposes of this paper long syllables will be transcribed as crotchets and short ones as quavers since these relative proportions are found in both speech and song.

Long syllables result in speech:

- (a) from the fusion of double vowels (indicated in the orthography) as in the middle syllable of *bweweere*.
- (b) from the fusion of two morae the first of which is a *w* or *y* (semi-vowel) and the second a vowel, again as in *bweweere*.
- (c) from the coalescence of a final vowel with the initial vowel of the following word as, for example, in *abasiba embuzi* pronounced *abasib'embuzi*.

For convenience of song transcription I also prefer to treat as single long syllables certain pairs of morae which are regarded phonologically as two short syllables. In the case of:

- (a) a vowel and the following syllabic nasal as in *Kikwabanga* and *embuzi* (though the latter example in the context of *abasiba embuzi* presents a special problem for it might be thought that the *em* coalesces with the preceding *a* to produce a "syllable" of 3 morae. (In such cases contraction always occurs and no syllable of more than two morae results.)
- (b) a vowel followed by double consonants as in *bikuggu* where the first consonant (in this case *g*) has a syllabic value often heard only as a brief pause in the stream of speech or song.

The resultant patterns of long and short syllables form gestalts which Europeans rightly or wrongly interpret as short patterns of compound duple mixed with simple triple time. This widespread hemiola effect can be illustrated by a short piece of song text as follows:

abasiba embuzi, basibira bweweere. Aa! Ssematimba ne Kikwabanga

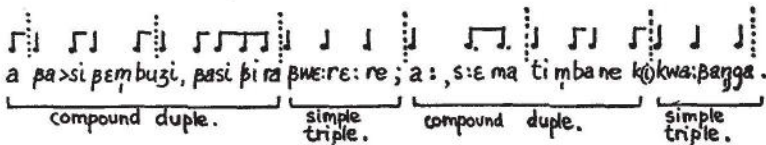


Fig. 1

Syllabic prominence

Although Tucker discusses "stress" in this language⁴ it is likely that in this, as in other Bantu languages, amplitude (or physical density) of syllables is not an important structural factor. Rather the impression of stress gained by European listeners is more

4. Tucker, 1967.

likely to arise from such other considerations as lexical quality, vowel harmony, care in articulation, length, "unexpected syllabicity" and tone. For instance, in the word *Ssematimba* the 'syllable' *tim* is perceived as being prominent because in this case the nasal as well as the vowel carries syllabic value; because too, it is a long syllable and perhaps because of the particular timbre of the vowel.

All three qualities discussed so far undergo a certain amount of regularisation when used in song, though recent research with the aid of a pitch meter shows a very close correlation between poetic song texts which are spoken and the same texts when sung. The following illustration compares two such fragments from well known Ganda songs. (Kubik Nos. 11 and 74)⁵.

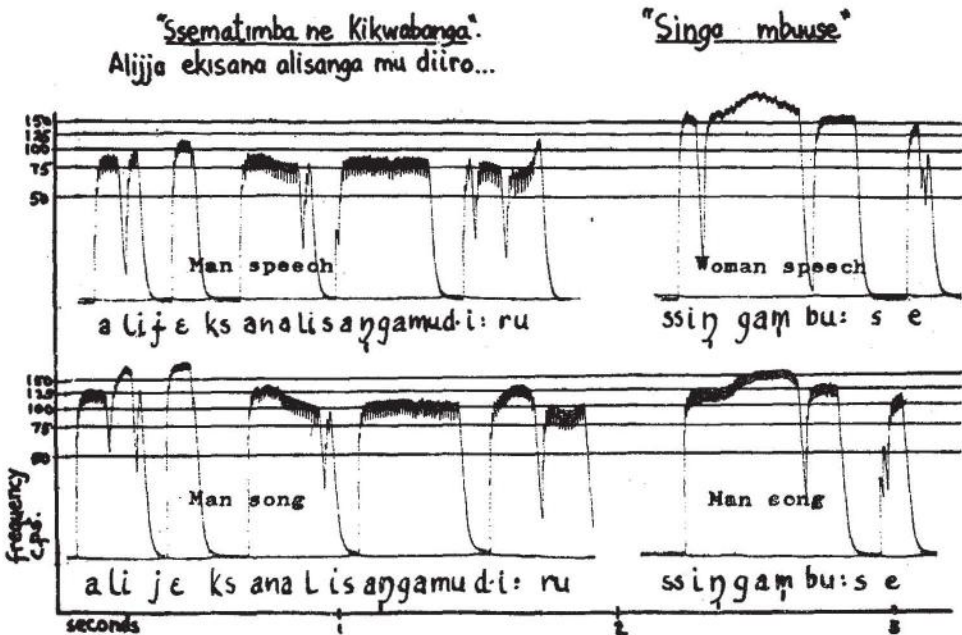


Fig. 2

It was difficult to find any Ganda who did not know these songs, so the speaker may well have been influenced by what he or she knows of the melody: furthermore, they are poetic texts and not ordinary conversation. I hope shortly to make further experiments to test if the same words, spoken in other contexts, will continue to parallel the fundamental pitches of the sung versions as they do here.

Ganda songs are frequently accompanied by a regular handclap — provided by the chorus, onlookers or both — and when drums are used, the deepest (then termed *Mpunyi*) is beaten to underline this clap-pulse. Even when the pulse is not sounded it is still appreciated implicitly by the performers and underlies the structure of the songs. Those songs we are discussing belong to the commonest group of songs which I will call *Baakisimba* dance-songs — for want of a better term — since they all can be used for this, the most popular of all dance styles. The clap-pulse in these songs falls with metronomic regularity every six syllabic units.⁶ Reasons for this could be the presence

5. The informants were Miss M. Kigozi and Mr. Abdu Semanda.

6. This term corresponds with what Kubik (p. 24) calls "elementary pulses"; I prefer to call them "syllabic units" for one is then reminded of the connection with speech. The term *mora* could equally well be used.

of hemiola patterns mentioned earlier, combined with a slight predominance of 'compound' patterns, as well as those qualities of syllabic prominence just mentioned. It would be a fascinating study in itself to measure the interplay of these factors as they affect the process of composing Ganda song texts. A few examples should clarify my argument. The following phrase from a well-known song (Kubik No. 74) fits very comfortably into the clap-pulse framework:

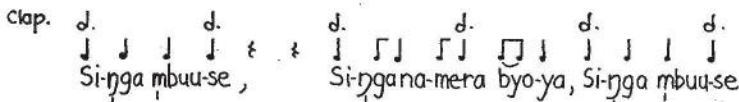


Fig. 3

In the next song a certain amount of stretching makes sure that the prominent long syllable in the word *Ssematimba* falls on to the clap pulse, the two syllables in *Ssema* being lengthened to spread over the time of three. I have transcribed the most commonly found versions of the nuclear line.

clap d. d. d. d. d. d.

A-ba-si bu embuzi, basi-bi-rabweree-re; Aa Sse-ma-timba ne ki-kwabanga.

KEY⁷ for comparison with xylophone transcriptions. 5 1 2 3 4 5

Fig. 4 "Ssematimba ne Kikwabanga" (Kubik, Nos. 11 and 58)

(Obviously the pitch meter graph exposes the inadequacy of any transcription which uses a music staff. However, if one bears in mind Kubik's remarks on Ganda musical pitch and on his use of similar transcription methods, the above should suffice for the purpose of this paper. The pitches are relative only.)

The patterns of duration and pitch in speech are seen to be closely preserved in the sung version. The word *embuzi* illustrates another regulating process that has occurred. Spoken in isolation the tonality of the words *abasiba* and *embuzi* can be indicated thus à ba si ba èm bu zi (the diacritics indicating low tones). In both speech and song there is the rule that two syllabic vowels cannot follow each other in a continuous stream of speech. Coalescence takes place between the two vowels *a* and *e* but at the pitch of the first vowel *a*. *Bu* loses its tonal prominence in the word *embuzi*. (It will be interesting later to see what *Amadinda* composers do in such cases).

With the exception of *embuzi* all other clap pulses coincide with the first morae in long syllables, a relationship that seems to be generally present in Ganda songs and one which will naturally result in the appearance of those patterns of notes earlier described as compound duple and especially the *crotchet-quaver* pairs. However, durational prominence (if long syllables are perceived as being prominent) is very often countered by other qualities that may give prominence to syllables, such as tone. The result is that texts seem, to the European listener at least, to float along free of any regular rhythmic organisation. The soloist's half of the nuclear theme of the song "Gganga alula" (Kubik Nos. 19, 71) illustrates this well:

7. Editor: Kubik's '1' is written in the third space (treble C).

Clap. d. d. d. d. d. d.

Gga-nga-a-lu-la Ee! Gga-nga-a-lu-la. Ba-mute-ma-kengalo bi-kuggu.

Solo. Chorus. Solo. Chorus.

Fig. 5

There is, however, a great lack of objective data supported by informed opinion within the culture and it is dangerous to speculate further with this line of thought.⁸ It may well be one more reason why non-Ganda, Europeans especially, fail to hear readily or appreciate fully the relationship of song melodies to instrumental versions.

Tempo

Speech tempo varies considerably according to the situation, the mood of the speaker and so on, but preliminary studies suggest that the rate of flow of underlying syllabic units in *normal* conversation is very close to that in performance of traditional songs of the type we are discussing. Both Kubik's figures for the rate of flow of his 'elementary pulses' of both types of xylophone music and my own figures for the tempo of flute songs agree closely with this speech tempo (average quaver = MM 600). I have already mentioned that they bear a simple 6:1 relationship with the clap-pulse producing a tempo for the latter of dotted minim = MM 100. The notion that speech rhythm is intimately related with all other rhythms of bodily movement is not a new one but is receiving increasing attention of late.⁹ This tempo for the clap-pulse is one that enables it to be carried out in an easy relaxed manner. It is also a comfortable tempo for transferring adult weight from one foot to the other, as in the *Baakisimba* dance, which can be performed to many songs in the Ganda repertoire and probably all the songs in Kubik's list. The study of physical movement in Ganda music has barely begun but when I come to discuss instrumental techniques I will mention some facts that I feel may be relevant to this study.

Song Structure

This is a common Bantu song type using a variable number of "lines"¹⁰ containing solo and chorus phrases of varying length. In the case of Ganda songs the solo phrases often dominate the structure (choral responses often being very short). This recurring pattern can best be described by using circular models as proposed by Rycroft (1967) and our song "*Ssemaŋimba ne Kikwabanga*" could then be illustrated as follows:

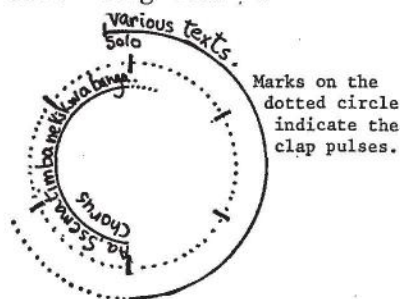


Fig. 6

This diagram shows clearly the bi-partite structure of the cycle — a feature which is reflected in the structure of the *Akadinda Okumaga* part but not in either of the *Amadinda* parts. In other songs, where there is more than one choral response within the cycle the structure will be a multiple of this bi-partite form though the presence of similar melodic motifs will combine with extra length to give the impression often described as a *two-line stanza*. Notice, too, in *Ssema-*

8. Experiments by Jassen and Morton (1965) suggest that European subjects assign prominence to syllables which have high tones—this could also be true for Ganda to the extent that tone is a means of giving prominence just as stress is in English.

9. e.g., G. Brown, B.B.C. Broadcast 'English by Radio', July 1968.

10. The term 'line' can be misleading because of its derivation from literary mediums of the printed page, etc. The songs we are discussing belong, of course, at present to a purely oral tradition but I have not found a satisfactory term to replace it.

timba some overlapping of the two parts and their relationship to the clap-pulse. Kubik's songs (all but two of them) can be explained in terms of this structure and number of clap-pulses (i.e. multiples of six syllabic units).

The overall immediate effect is one of repetition. Certainly the choral responses are nearly always unvaried and the general phrase lengths are preserved in each cycle. But the soloist's part is repetitive only to the degree that:

1. There are occasional repeats of one or more key phrases which I will call 'nuclear themes'.
2. Many of his other phrases — which may be traditionally used or which he may improvise during performance — bear a close but by no means exact relationship to the pattern of the nuclear theme. In fact in the best performances the listeners who follow and understand the singer's words are not conscious of repetition as such, though by appreciating it subconsciously they allow the basic moral of the song to make its effect.

Nuclear themes, together with the repeated choral response¹¹ and the general melodic similarity of other solo phrases, give each song its identity. There is ample room for research into the skill which a good singer uses when choosing words that carry and develop his message, yet, at the same time, fit into the general rhythm-melodic framework of the nuclear theme. As far as Ganda song, too, is concerned, no enquiry seems to have yet been made into the possible presence of aesthetic speech effects such as assonance, alliteration, rhyme or onomatopoeia and their relationship to syllable prominence and other musical qualities of song.

Three nuclear "lines" from the song '*Ssematimba ne Kikwabanga*' deserve comment. Most Ganda know the song and many can sing at least these three lines:

Solo. d. d. d. Chorus d. d.

A-ba-si-ba-embuzi, basi-bira bwere-re; Aa! Sse-ma-timba ne ki-kwa-banga.
Those who herd goats, keep them in vain. Ah! Ssematimba and Kikwabanga.

A-li-jja e-ki-sa-na-ali-sa-nga mu ddi-ro. Aa.....
He who comes late will find me laid out in the best room.

A-baa-na b'en-koko ba-ku-li-ta mu ssanja, kato-ha naa-ba-kuu-ma; Ki-kwa-banga.
Young chickens grow up among banana leaves, God cares for them;

Fig. 7

Not only are these lines melodically similar but they convey at the same time the essence of the song. They have become proverbial statements which moralise on the fate of two Ganda princes killed in battle during one of the many wars of *Kabaka Sssuna's* reign (c. 1832-57). When, however, a professional singer such as those attached to the former royal court takes up the song, he will develop these ideas over a period of several minutes and each performance he gives is different and contains both formulaic and informal improvisation. The former type of improvisation stays very closely within the melodic and rhythmic framework of the nuclear theme and only minor adjustments

11. J. H. Kwabena Nketia discusses similar structures in his introduction to Ghanaian song (1963, pp. 7-9).

are made to meet the differing tonal and rhythmic demands of word patterns. For the more informal type, however, he will select a guide note of a fairly high but related pitch to the tonality of the song on which to carry his words. At this pitch he incants the high tones of his words, occasionally dropping down for low tones but returning again so that one gets the impression of a recitative-like two-note melody. This I have noticed occurs more frequently when instruments present are outlining the nuclear theme and so are freeing the soloist of any need to preserve that pattern. If he overlaps into the chorus part he submits the 'guide' note of the choral phrase to the same type of treatment.

I have described very briefly some of the characteristics of such Ganda bardic songs as are sung and played by former royal ensembles, harpists, fiddlers and other present-day groups. Even an incomplete description will aid comparison with instrumental versions and help one to deduce the possible processes that produce the latter. I consider that all these sophisticated instrumental groups, like those I have mentioned, developed in the first place in order to complement or replace vocal performers; even instruments like the *Akadinda* whose sheer volume of sound tends to drown any singer. I have yet to discover any instrumental piece of the Ganda tradition which did not perform this function. One criterion of success is, therefore, how effectively the song is delineated by the instruments. Kubik mentions this often without, I suggest, giving sufficient weight to the concept.

SONG ON INSTRUMENTS

Before proceeding to the particular, there are two further general aspects I wish to discuss. The first is a question: why do the Ganda instrumentalise song? One reason may be an aesthetic one — the desire to emphasise the purely musical aspects of a song at the expense of communication through words. There probably are social reasons — for instance, it allows more persons than the soloist to participate in performing the *complete* 'line' without competing with the verbal communication of the soloist. Another reason may be that dances often go on for many hours and it is easier to *play*, over a long period of time, than to *sing* the dance songs. Furthermore, dances and other music-making often take place out of doors where instruments that have greater carrying power than voices may well be favoured. It is possible, for instance, that the former *Kabaka's Akadinda* was once meant to be heard not only by those within the royal compound but by anyone within the vicinity.¹²

Some Europeans learn instruments because they want to make music but believe, or have been persuaded to believe, that they do not sing well enough to give themselves or others any pleasure! This may also be the case among Ganda but I suspect it is less likely. More likely in Ganda society, where much of the success of the singer depends upon his bardic ability to compose spontaneously, others may feel more able to gain in social esteem by another form of music-making — that of producing organised sound from objects whose souls (such as stones, in drums) lie dormant. In this respect there may be magical reasons underlying the act of bringing 'dead' objects to life and causing them to speak to humans.

There is not room to discuss also why certain instruments are more popular than others within Ganda society. Interest in this direction has been shown by Wachsmann¹³. There may well be a value in investigating the relationship of speech timbre — for instance 'creak' quality in Bantu speech — to the particular type of tone favoured by singers and to a predilection for complex timbres such as are produced when a string rattles against a stretched skin when plucked, in the case of bowl lyres (*endongo*) or

12. Against this view one might say that whereas the *Akadinda* today completely masks the singer's voice, it may not always have been so large. On one occasion when I recorded and played back a performance in which one player also sang, there was general appreciation shown of the way the microphone had allowed the singer to be heard.

13. 1953, p. 56 and 1958.

through the intermediary of a pith bridge on a skin, as with the tube fiddles (*endingidi*). Other features such as the presence of rattling rings on harps and the *absence*, it seems, of any attempt to add resonance to xylophone tone by means of pits under the banana stems, gourds or other resonant chambers, all seem to add up to a desire to increase the strength of upper harmonics at the expense of the fundamental harmonics of instruments. Wachsmann (1953) suggested that this may be one means of realising physical experience in solo performance and it is certainly true that when more than one person combine in a performance, distinct rhythmic features are present as well as song.

This leads us to one more possible reason for playing instruments — that the Ganda enjoy the physical experience. Physical movements other than those of the organs of speech are called for and it is possible that the very process of organising physical movement when making music is a satisfying and important by-product of the whole. Hands must beat drums, fingers cover holes and pluck strings, strong breath pulses must generate vibration in horns, dance steps set bells jingling and arms and wrists swing beaters against xylophones. Blacking (1955, 1961) has made some approach to this type of investigation and, of course, students of dance necessarily explore movement as a means of expression and communication to a much greater degree than I can do in this paper.¹⁴

The duality of speech and rhythm in music in Uganda is not so separate as one might think. I will choose to illustrate this by analysing some of the instrumental practices that one finds associated with dance songs. Traditionally these songs are accompanied by drums, rattles and hand claps. A performance of 'Ssematimba' might contain the following basic instrumental patterns:

(I have omitted melodic content of the drum sounds for ease of analysis.)

MPUNYI Drum and CLAP.	d.	d.	d. etc.	
BAAKISIMBA Drum.	R	R	R	R etc.
	L	L	L	L
				= not often sounded but always available
NGALABI Long drum.	R	L	L	L etc.
	L			+ many other variants using similar principles
ENSAASI Gourd rattles.	R	R	R	R etc.
	L	L	L	+ other variants

Fig. 8

Though many of the patterns above contain long and short notes, it is important to extract what individual hands are doing, for their movements are generally *regular* ones which can be measured as multiples of the underlying syllabic units of the song.¹⁵ This regularity of movement is satisfying in itself and the connection with regular speech pattern is there. This is further underlined by the common practice of describing drum patterns in terms of speech,¹⁶ e.g.:

	d.	d.	d.	d.
Baakisimba Drum.	R	R	R	R
	L	L	L	L
	"Ka-ba-ka-a-li Nku-luu-ze", mukubire muBaa-kisi-mba.			

Fig. 9

14. Hornbostel as early as 1928 wrote "Melody and text, like music and bodily motion, originally form an inseparable entity" while Blacking (personal communication) reminds me that the verb stem "imba" (as in Venda *Lumbo* and Luganda *Kajimba*) means more than to sing; it also serves for instrumental playing and basically translates as "to move the body rhythmically".

15. See Tucker, 1962, p. 164-166 for further study of this relationship of drum beats to speech patterns.

16. These words have a tonal (pitch and density) as well as rhythmic significance and students from outside the culture who attempt practical study of drumming often ignore these two factors. Not only do they fail to reproduce the variations in pitch and quality, but also fail to organise the individual hands into *regular* movements that *feel* right as well as sound right.

Having discussed at length possible reasons for instrumentalising song, two more questions must be asked. To what extent are the general features of song contained in known instrumental versions? Secondly, if there is the desire to represent song as closely as possible, how far do the properties of the instruments themselves or the physical means used to play them affect the success or otherwise of the attempt? Formal elements such as tempo and structure of instrumental pieces will be obviously related to the sung versions. Dynamics are easily catered for in most cases. It is more likely to be in terms of quality, range of pitch and rhythmic pattern that instruments fall short of what the voice achieves. I have already hinted that voice timbre and instrumental tone might be related, but for want of any objective data cannot examine this further.

In many parts of Uganda instruments that produce only one or two notes are teamed up to produce the pitch range required by songs (e.g. the Ganda *amakondere* — side blown horns). More than one player is required to produce the complete song pattern: but in other cases even complex instruments with a wide range of pitch such as the *Entenga* drum chime¹⁷ are traditionally played by a team of players rather than by individuals. The same is true of xylophones and the reasons for this are not simply that more can participate or that the melody can then be duplicated in other octaves. More likely it is that by dividing the task among themselves players can play parts which, while contributing to the total sound picture, consist individually of satisfying, regular physical movements.

XYLOPHONE TECHNIQUE

A common rhythmic principle underlying both xylophone styles (if we disregard variations of rhythmic density for the moment) is that all *Okunaga* and *Okwawula* players wield their beaters in a metronomically *regular* succession of blows. With the *Amadinda* the cyclical movement is of the duration of two syllabic units. For the *Akadinda* it is three. Since, however, the parts interlock there appears a constant stream of sound pulses which match exactly the stream of syllabic units that a singer performing with them would produce; this, by means of regular physical movement that is easily maintained once the balanced use of the weight of the striker is achieved.¹⁸ With the *Akadinda* the slower cycle permits the employment of heavier beaters and so larger xylophone keys, though this regularity of movement is less obvious in the case of the *Okwawula* part, shown thus:

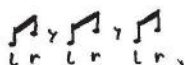


Fig. 10

unless one considers — as with the case of the drum and rattle techniques — what each individual hand is doing. Then it becomes clear that each hand is making exactly the same cycle as the *Okunaga* part. The result of this simple but beautiful logic is the combination of two (*Amadinda*) or three (*Akadinda*) regular rhythmic impulses that add up to a structure that can contain all the basic notes of any

nuclear song pattern even though the latter contains a mixture of long and short notes.

When one player attempts to do this on his own, he has trouble because in trying to imitate an *Amadinda* technique with his two hands his sticks get entangled unless (as I have seen Mr. Muyinda and others do) he reaches one hand across the instrument and so can strike both ends of each stave as if he were two persons!¹⁹ I have observed other solutions to this problem in the case of less complex songs like “*Enyana Ekutudde*” (Kubik No. 6) and it has been solved by using hands on the same side but playing two different but regular rhythmic patterns in ‘polymer’.²⁰

17. See Wachsmann (1965) for a description of this instrument and the distribution of performers.

18. Professional drummers in European traditions also often economise effort by temporarily organising their drum parts in this manner. However, the western composer is constantly interfering with any consistent establishment of such patterns!

19. This is merely regarded as a trick and is not to be thought of as a musical practice. However, as a trick it tells us much about the underlying concept.

20. I use this term with caution since it suggests that two meters exist. Each can certainly be analysed in isolation but they are basically complementary and bound by both the regular clap-pulse and the syllabic speech units.

One of the problems in learning both instruments is for the second basic part to be inserted correctly in place. A Ganda who completely understands the relationship between the instrumental version and the song would naturally be dissatisfied if he entered in the wrong place. I contend that it is because the expected tune as well as recognisable 'inherent patterns' do not emerge rather than because of some 'harmonic quality' discovered by Kubik.

However, it is necessary to demonstrate the expected interrelationship further by comparing an *Amadinda* version with its song. For this purpose I will use the same "number transcription" device as Kubik, except that I have separated visually the two different instrumental parts for ease of study. The nuclear theme I have transcribed is a norm deduced from variants sung by nine different Ganda recorded over a period of six years. Four of these persons were members of different royal ensembles (*Entenga*, *Akadinda* and *Abalere* (flute band)).

Fig. 11 The Amadinda Process. "*Sematimba ne Kikwabanga*" (Kubik, No. 11, Muko V).
Sung version and *Amadinda* version compared

(I have, for ease of comparison, ringed those notes in the *Amadinda* part which coincide with sung notes.)

At first glance there appears to be numerically a correlation of a bare 58 per cent between the two versions in terms of pitch. There are, however, many important similarities which one would expect to find if, in fact, this is an attempt to delineate the song as accurately as possible. They are:

1. *Structure*. The total number of 'Units' agree. Moreover, because this song and all others under consideration are cyclical and the basic pulse pattern does not move its position relative to the nuclear theme, the total number of units will always be multiples of six. Two of Kubik's 50 songs do not show this simple relationship (Nos. 47 and 50). This cannot be due to transcription errors because they are identical with Kyagambiddwa's versions of the same two songs.²¹ They present a problem that will perhaps be solved when we obtain more data on the structures of the two songs. They may well be atypical, for Kyagambiddwa writes that these irregularities "resulted from the songs' elongations and diminutions." It is possible, too, that changes have occurred during the transmission process at some time, for he also says of the second song, "This is the greatest of all Ganda songs extant . . . both vocally and instrumentally and belongs to the group of 'professional popular songs'. At present, there remains in Uganda only one musician who can perform it perfectly on the harp".²²

2. *General melodic contours are maintained and the first mora in each 'prominent' syllable is always reproduced*. The problem of *Emiko* obscuring contours does not arise here, for since the instrumental version is spread over two octaves, the original contours can usually be heard. I refer the reader to Kubik (p. 28) for a clear exposition of this.

21. Kyagambiddwa, 1956, p. 225 and 231, except that Kyagambiddwa's *Okumuga* part is Kubik's *Okuwunula* part and vice versa in "*Agenda n'omulungi aya-ana*" (Kubik, No. 50).

22. Kyagambiddwa *Ibid.* p. 231.

Those notes that do not correspond are more interesting for they tell us considerably more about the process of composing *Amadinda* pieces.

- (a) I have placed a symbol *below* some sections that underlie the beginnings of words each of which have a low tone on the first syllable. In a stream of speech or song this low tone is not always realised perhaps because of problems of pitch manipulation at speed. However, on the *Amadinda* since each syllabic unit is represented by a separate sound it is possible to represent the individual tonality of such syllables. The first note in each of these sections is a lower one — either a “Kiganda second” or a “Kiganda fourth” (Kubik’s terms). The same is true of the word *embuzi* because the initial vowel which was coalesced (as we saw earlier) with the previous vowel suffix in *abasiba* can once again be separated. *Bu* in *embuzi* regains its tonal prominence.
- (b) I have placed a horizontal bracket *above* groups of notes that underlie complete words, each containing a succession of syllables sung on a level pitch. Why do not *Amadinda* players indicate this simply by repeating the same note? I believe the answer lies in a wish to delineate tonal and rhythmic prominence of certain morae within the musical framework by the use of ancillary notes of different pitch. An examination of three of these groups is revealing — though it must be remembered that the solutions offered are those of a musician and not a linguist.

1. Ancillary notes which represent unvoiced segments. (Fig. 12).

clap pulse	d.
text	a <u>ba</u> > si <u>ba</u>
tone	—
sung	3 5 > 5 5
played	3 5 3 5 5

Fig. 12

The voiceless fricative *s* is here represented by the 3.

2. Ancillary notes that represent syllabic nasals.

The *n* in *embuzi* may be an example of this. The *n* in *Kikwabanga* is an exception probably because of its proximity to the end of the tone group. But see also Figs. 15 and 16 for other examples.

3. Ancillary notes that isolate prominent syllables from preceding syllables. (Fig. 13).

clap pulse	d.
text	<u>ba</u> si <u>bi</u> ra <u>βwe</u> :
tone	—
sung	w 2 2 2 2 2 ~
played	1 2 2 5 2 1

Fig. 13

Bwe (the first mora of which is considered by some to have high tone) and which falls on the clap pulse is separated from other notes of the same pitch by an ancillary note of different pitch. In some *emiko* this separating note is a low tone, but in any case its pitch is far enough away from the pitch of the melody notes for it not to obtrude.

Sometimes ancillary notes can be explained in more than one way: (Fig. 14).

clap pulse	d.		d.
text	ki kwa : <u>ba</u> : <u>ŋ</u> ga a <u>ba</u>		—
tone	—		—
sung	1 3 : 3 : 3 : 5		5
played	1 3 1 3 3 1 3 5		5

Fig. 14

The middle ‘1’ can be regarded as separating two long syllables or as representing the consonantal function of the *B*.

The last ‘1’ is perhaps low in pitch because it marks the end of a tone group or simply to separate the choral response from the beginning of the soloist’s phrase. In other circumstances one

would have expected the nasal to have been given the ancillary note.

This, then, is an attempt to relate ancillary notes in the *Amadinda* part to the musico-phonological structure of the sung version. Does it work for other songs and can evidence from different instruments support such an explanation? I consider that this is indeed a systematic compositional process found in other songs and related to a similar process in flute playing as well as other instruments (which I have not yet examined). Two more examples of this system at work will be given:

Two more examples of this system at work will be given:

text	e	:	ku	sa	ṁ	ba	ne	te	ku	li	ṁ	nya
tone												
sung	2	:	3	3	:	3	1	1	1	1	5	2
played	2	5	3	3	1	3	1	1	4	1	1	5
												2

Fig. 15 "Enyana ekutudde" (Kubik, No. 6)
Choral response "edusamba ne tekulinnya"

examines the *Okwawula* parts (a) and (b) that Kubik gives, one finds that the section that relates to this choral response does not vary. One would naturally expect to find variants in the section related to the soloist's words. (Fig. 16).

clap pulse	d.											
text	0	:	mu	sa	ṁ	go	gwa	:	pa	:	...	
tone												
sung	1	:	2	2	:	2	2	:	2	:	2	
played	1		3	2		2	5		2		2	5
												2

Fig. 16 "Omusango gwa abalere" (Kubik, No. 13)

different pitches to communicate different feelings. The only unresolved problems lie in the ending of the word *Ssematimba*, the word *ne* (which is often omitted by singers) and the pitch of "Ki" in the word *Kikwabanga*. Again, the sung pitch of this syllable is unstable, possibly because tonal placement of the *i* following the voiceless consonant *k* is often not fully realised.

Before summarising the results of this comparison, there is a need to qualify the analysis so far by stating that there may at times be many cases when a lack of close correlation is evident. We must remember that I have assumed that the particular words I selected are the words that give the nuclear theme its shape. The *Amadinda* version may quite possibly be a compromise attempt to suit more than one pattern. To illustrate the difficulty, here are a number of variants of "*Ssematimba*", given in the order sung on one occasion by a former royal musician.²³

35 55 54 22222 3 3	Abaana b'enkoko bakulira mu ssanja.	Chorus
35 3 5 4 22 22 213	Abaali abangi nsigadde bwomu.	"
35 55 43 22222 1 1	Abasiba embuzi basibira bwereere.	"
35 55 34\ 22 22 /4\	Nze lwe ndiva kuno ndigenda bw'omu.	"
35 55 44\ 22 22 2 3\	Atanziraba aseka erera ajeera.	"
5 55 44\ 22 22 4	Nantafumbirwa alibeera waani?	"
35 4 5 4\ 22 22 3 3	Ogidde onkyawe olikyawa n'omwana.	"
35 5 444\ 22 22 2\ 1	Aliija ekisana alisanga mu ddiro.	"
35 5 454 22 22 2\ 1	Akajja obunaku kagenze ne nfuuzi.	"
35 4 5 4\ 22 22 4\ 1	Ogidde onkyawe olikyawa n'omwana.	"
35 4 5 4\ 22 22 2\ 1	Ogidde onkyawe olikyawa ne mmange.	"
5 55 34\ 22 22 4\ 1	Lwe ndiva wano ndigenda wa taata.	"

Difficulty of comparing instrumental versions with known song texts is further increased if one does not have texts collected from those who play the instruments.

To sum up:

1. Syllables that are prominent tonally, or durationally, or because they coincide with the clap-pulse, are always sounded on the xylophone at the correct relative pitch.
2. Falling tones (as in '*bwereere*') are imitated closely by use of ancillary notes within the two extremes of the pitch slide.
3. A series of repeated notes in the text are not just repeated regardlessly in the

23. Mr. Blasio Busulwa, former member of the royal flute band. Recorded by me in June 1968

This song is said to be of Soga origin. I have not shown the clap-pulse which is different in Soga songs. Soga xylophone songs also contain many variations of the basic patterns — which possibly accounts for the variants supplied by Kubik. When one

To revert to our study of the song "*Ssematimba*", we can see that the tonal outline of the word *bwereere* has been neatly realised as is the exclamation *Aa!* which is open to a variety of treatments when sung since its pitch has more an intonational than a tonal function, i.e. it can be spoken with

Amadinda version. They are separated by ancillary notes in a way that lends prominence to important syllables and clarifies word patterns. The consistent avoidance of more than two successive notes of the same pitch may well be a reflection of the contraction that occurs in the syllable structure so that syllables containing more than two morae or underlying vowels cannot occur.

4. Ancillary notes used in (3) are usually a 'Ganda fourth' (or inversely, 'Ganda fifth') away from the principal notes. This point will be discussed in some detail later.

It is safe to say, then, that separate parts are neither composed nor considered for their own intrinsic value, but that the attempt is always to represent as closely as possible a complete nuclear theme while leaving room for accommodating slight variations of text and melody. The part played by the third person, known as *Okukoonera* can be left for the moment while we go on to discuss the *Akadinda* style to see if the same general principles will hold good.

THE AKADINDA PROCESS

The basic difference between the two xylophone styles is really a physical one. By this I mean that whereas each player of the *Amadinda Okunaga* and *Okwawula* parts has a free choice of notes over nearly the whole range of the instrument to practise the principles I have described above, this is not so for the *Okwawula* players on the *Akadinda*. Their first problem is that they have two notes to fill in for every one of the *Okunaga*. Their second one is that although their hands operate in their own regular rhythm, they are restricted spatially. Each hand has at best a range of four notes; this range is further restricted because obviously strikers cannot cross — each would be bound to interfere with the other. Obviously too, players would prefer to be concerned with a small range of notes for each hand as well as parallel or oblique movements and the more repetitive the pattern the easier and more physically satisfying to execute. Lastly, if, as with the *Amadinda*, fourths are going to feature prominently in the structure as ancillary notes, then a movement incorporating much use of parallel fourths will be required from the *Okwawula*. This will account for the frequency of repetitive patterns of fourths like the '*kulya, kulya, kulya*' and '*katongole*' patterns quoted by Kubik.

Bearing these factors in mind, let us look again at the song '*Ssematimba*', only this time it will be profitable to compare both *Amadinda* and *Akadinda* versions simultaneously.²⁴

The figure shows a musical score for the song "Ssematimba ne Kikwabanga". It is organized into four main horizontal sections: VOICES, AMADINDA OKUNAGA, AMADINDA OKWA, and AKADINDA OKWA. Above the VOICES section, there are vocal lines with lyrics: "A-ba-si-bye mbuzi, basi-bira bwe-ree-re. Aa, Sse-ma-ti-mba ne Ki-kwa-ba-nga". Above the AMADINDA OKUNAGA section, there are rhythmic markings and fingerings (3, 5, 5, 5, 5, 4, 2, 2, 2, 2, 2, 4, 1, 5, 1, 1, 5, 5, 2, 3, 3, 3). Above the AMADINDA OKWA section, there are rhythmic markings and fingerings (3, 5, 5, 3, 5, 4, 2, 2, 5, 2, 4, 2, 3, 5, 2, 4, 4, 3, 5, 2, 3, 3, 1). Above the AKADINDA OKWA section, there are rhythmic markings and fingerings (3, 5, 2, 5, 4, 4, 3, 2, 2, 2, 4, 4, 3, 5, 2, 2, 4, 3, 5, 2, 3, 4, 3, 1). The notation includes vertical lines representing the pulse and various symbols for notes and rests. There are also labels like "Solo" and "Chorus" above the vocal lines, and "Variant" and "b." below the Amadinda and Akadinda parts respectively. The score is attributed to KUBIK No. 11 and KUBIK No. 58.

Fig. 17 "*Ssematimba ne Kikwabanga*" *Amadinda* and *Akadinda* compared with vocal melody

To aid comparison, I have linked all notes occurring on the clap-pulse and on the subsidiary half-way pulse. The results are of great interest and can be tabulated thus:

24. It will also correct an impression given by Kubik that the two parts are displaced in relation to each other as a result of some strange effect of compression and stretching (Kubik, pp. 56 f.). By neglecting to compare both versions with the song he has misplaced the *Amadinda* line one unit to the left in his diagram.

1. The *Akadinda Okunaga* has indeed, as Kubik says, "condensed" the melody by playing all the notes required on both clap and subsidiary pulse. With the *Amadinda* this task, as one would expect, falls nearly equally between the two parts. This is one reason why it is so much easier to perceive the melody when it is first played on the *Akadinda* than it is on the *Amadinda* (for it is the *Okunaga* that traditionally enters first and often plays a complete cycle before the other part enters). On the *Amadinda* the *Okunaga* part on its own obscures this melody.

2. Changes of pitch within a word are faithfully imitated, e.g. *Abasiba*, *Bwereere* and *Kikwabanga*.

3. Repeated notes are again separated by intervals of a Ganda fourth (or the reciprocal fifth). But one must note here, however, that since the *Amadinda* and *Akadinda* are not intended to play together, these ancillary notes do not have to be identical. In *Abasiba* the *Amadinda* note 3 is as far away as the *Akadinda* note 2 from the sung note 5 (i.e. intervals of fourths or fifths).

4. For the first time we have a succession of more than two identical notes, i.e. 222 (at bracket b) which might reduce the clarity of that part of the melody. The *Amadinda*, as I pointed out earlier, gives due prominence to the clap-pulse note at *Bwereere* by dropping down before it to a '5'. To do the same on the *Akadinda* would have disturbed the falling *Okwawula* pattern considerably.

5. The simple descending pattern of the *Akadinda Okwawula* part (24, 13, 52) does not succeed in presenting the song as well as the variant quoted by Kubik.

6. This 'variant' is, in fact, similar to the one I heard used in the Kabaka's enclosure (November 1965) except that at bracket (a) the Kabaka's musicians played 1141, quoted elsewhere by Kubik, a considerable improvement on 1241. One has only to glance at Kubik's many *Akadinda* transcriptions to see that variants from the simple patterns abound: they usually suggest the nuclear themes of songs more successfully than the simpler patterns. Kubik himself points this out (p. 52).

What can we learn from this comparison? Firstly, it seems that both parts do correlate very closely in the attempt to outline the song. Possibly the *Akadinda* version does not succeed quite so subtly as the *Amadinda* in giving prominence to those notes that require it. Very often the two notes of the *Akadinda Okwawula* part are the reverse of the corresponding pair in the *Amadinda* version, i.e. the ancillary notes are not placed so usefully as with the *Amadinda*. However, the underlying principle is the same, albeit influenced by the fact that the hands of the *Okwawula* part are not completely free to choose the best notes. Kubik's rule (p. 51, para 2) must be amended, however. It is not simply the case that the left hand of the *Okwawula* must 'reduplicate' the preceding *Okunaga* note and the right hand must 'harmonise'. Sometimes the melody is better outlined if the right hand plays a melody note (as for example, in the case of the word *Kikwabanga*) or both hands play the melody notes (as with *Bwereere*). One can simply say that the *Okwawula* part should contribute both melody and ancillary notes to the song as effectively as possible (bearing in mind the desirable characteristics discussed when analysing the *Amadinda* style). To attempt to construct an *Okwawula* part without paying attention "to the question of the vocal song being contained in the instrumental version" as Kubik suggests is to ignore the fundamental complementary nature of the *Akadinda* parts. It may be useful advice to give to non-Ganda to find out which repetitive 'Kulya' or 'Katongole' patterns might produce a pleasant result but is a method of trial and error that is from the outset somewhat misleading.

One more example will show the same basic method being applied to both styles. This time I quote two important variants of the solo part of the song. It is interesting to see how both variants are contained within the instrumental parts.

	Solo	d.	d.	d.	d.	
Voices	Ntunzentu-nze!	O-muhyongatunda Nandere.				
	4 3 2 5	2 3 3 3 1 1 1 5 2				
	kino kye kye b̄b̄iri					
	4 4 5 2 4 5					
AMADINDA. Oku. Okwa.	4 2 3 5 2 1 4 5 3 2 1 3 3 5 1 4 3 5 2 1					Kubik No. 9. (1 Muko lower.)
	·a· ·a· ·b·					
AKADINDA. Oku. Okwa.	{ 4 4 3 5 2 1 4 5 3 5 2 1 3 3 5 1 4 1 5 2					Kubik No. 68. (2nd. Okwawula Variant)
	·a· ·a· ·b·					

Fig. 18 "Omuyoro atunda Nandere". Notes marked "a" precede prominent morae; notes marked "b" coincide with nasal compounds

The sung version is based on a children's performance recorded in 1965 (tape C3/B6). A similar version can be found in Kyagambiddwa (1956, p. 56).

There are three aspects of the styles which demand some attention before I attempt to summarise the results of this approach. In each case I can give no definite answers to the questions posed but ask them nevertheless for they come as a corollary to my general approach and I have tried to give some tentative interpretations that are to some extent different from those of Kubik. They concern what he called "Kiganda Harmony", secondly what he aptly describes as "inherent rhythms" and finally the function of the *Okukoona* part in the *Amadinda* style.

KIGANDA HARMONY

The concept of a Ganda "desire for harmony" is one frequently referred to by Kubik. In discussion of both instruments he suggests that a "desire for harmonious sound" (p. 35) lies behind the characteristic patterns of interlocking fourths and, in the case of the *Okwawula* part of the *Akadinda*, states that its function is to "harmonise" the preceding *Okumaga* notes (p. 50). While it is true that "Kiganda fourths" or their reciprocal fifths seem to be systematically used between two notes of the same pitch in both these styles, I have suggested that these ancillary notes serve principally to clarify the verbal structure of the "nuclear theme". Why then the preponderance of fourths and fifths in this context? There is a danger, I believe, in answering this by hinting at concepts of harmony that probably belong more to other cultures than to the Ganda.

Certainly the interval of a fourth seems an important one in Ganda music. Wachsmann (1950) in his examination of the tunings preferred by the famous Ganda harpist, Temuteo Mukasa, discussed the possibility that Mukasa was aiming at producing satisfactory fourths in his tunings and that this may have accounted for the resulting equal-stepped pentatonic scale. He suggests also that fourths feature prominently in the melodic structure of Ganda song. Glides or leaps up or down a fourth do feature prominently in the melodies I have mentioned and it will be seen from the voice graphs I have included that this is also a feature in the tonal patterns of spoken *Luganda*. Perhaps then this use of ancillary fourths in xylophone music is a reflection of an inherent feature of the language.

It is significant that Ganda flutists also base much of their seemingly improvised florid style on the same process of separating repeated notes in the song by other notes a fourth or fifth away. The following transcriptions illustrate this. They are common variants found in the individual parts of several performances of our song "*Ssematimba*" which I recorded from members of the former royal flute band and therefore may be taken as fairly representative of the Ganda flute style. The sung version, which differs

slightly from my earlier transcription of this text, is also provided by a flute player, Mr. Blasio Busulwa (Tape NTC 4/11).

The image shows a musical score for the song "Ssematimba ne Kikwabanga". At the top, there is a clapping rhythm indicated by a series of dots: Clap. o. d. d. d. d. d. Below this is a vocal line on a single staff with the lyrics: "A-baa-na be-nkoko bakuli ra mu ssanja, ka-to-nda na-ba-ku-ma, Ki-kwa-banga." Underneath the vocal line are three staves of music labeled "Flute variants". The first staff shows a melodic line with various ornaments and slurs. The second staff shows a more complex melodic line with many sixteenth notes and slurs. The third staff shows a simpler melodic line. Vertical dashed lines connect the lyrics to the corresponding notes in the flute variants.

Fig. 19 "Ssematimba ne Kikwabanga" — Flute variants

Is such a style evidence of an interest in fourths as melodic rather than harmonic intervals? I leave the answer open for want of further evidence but would like to mention two more points that may be relevant.

- (a) There could conceivably be a negative reason: that Ganda subconsciously dislike the dissonant overlapping effect that the use of seconds might produce. In pentatonic music once the choice of adjacent tones is avoided the only notes left will be fourths or fifths.
- (b) Finally there may be physical reasons (certainly it is so in the case of the *Akadinda Okwanula* part) for the preference of fourths. This I do not consider of much importance, however, in the case of the *Amadinda* nor with the flutes. The latter are frequently used in ensembles of different size flutes, so finger patterns will vary for the same melodic progressions — yet fourths are still preferred. Also, flutes can play the same song in different *Miko*, resulting in different fingering patterns. Again, the choice still seems to lie with fourths to separate melody notes.

INHERENT RHYTHMS

If it is accepted that xylophone repertoire is based on the attempt to outline songs effectively, then some attempt must be made to assess the importance of inherent rhythms.²⁵ An answer should be given to the question: does concern for inherent rhythms affect the content of xylophone parts? My view is that they are to a large extent a coincidental feature of the process. Sometimes the same song played on different instruments produces different gestalt effects simply because of differing timbres and resonance of notes on those instruments. Yet at the same time it is true that Ganda musicians recognise such patterns themselves. I have extracted below two melodies that can be heard sung during a performance on the *Akadinda* of the song "Omusango gw'abalere" contained on a disc recording made for the Uganda Museum some years ago

25. Previously discussed by Kubik, p. 29 and 1962.

by Wachsmann. The upper theme is the well known nuclear theme of the song. The lower one is based on a distinct pattern formed by the notes I have ringed. The words of this melody do not — to my knowledge — belong to this song and they may even be a text associated with a song called “*Nnabulagala*”.²⁶ They are in all probability suggested by the *Okwawula* part.

The figure shows musical notation for the Akadinda song "Omusango Gw' Abalere". It consists of four staves:

- Clap:** A sequence of four dotted quarter notes (d.) followed by a double bar line.
- SONG:** A melody with notes and rests. Below the notes are rhythmic values: 2, 2/3, 3, 3, 3, 3, 2, 1, 1, 1, 2, 5. The lyrics are: O - mu - sa - ng'o gw' a - ba - le - re gwe - ga - lu - dde Ba - ni - wa - le E - bbi - ra gye ba - nza - la.
- AKADINDA:**
 - Oku:** A sequence of circled numbers: 2, 3, 3, 3, 3, 2, 1, 3, 3, 2, 3, 3, 3, 2, 4, 3, 3, 3, 3.
 - Okwa:** A sequence of circled numbers: 2, 3, 3, 3, 2, 1, 3, 3, 2, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3.
- INHERENT RHYTHM. Text:** A sequence of notes and rests with lyrics: Twe - ya - nze, twe - ya - nze, twe - ya - nzi - zza e Nna - bu - la - ga - la.

Fig. 20 “*Omusango Gw' Abalere*”. *Akadinda* song showing inherent rhythm used for carrying texts.

It is also possible that some inherent rhythms only vaguely suggest words to performers who then make minor modifications (*ebisoko*) of either part to make the pattern more prominent and better fitting to the suggested text. In both cases, however, they are incidental to the main object, which is to present known songs effectively. They do, however, complicate the study of the whole process for they produce variants that can only be analysed when texts associated with each are available. For instance it is difficult to compare variants supplied by Salama musicians with those of the former *Kabaka's* musicians unless one knows also the texts that each group connects with the variants.

This may also be the place to comment briefly on the melodic structure of individual parts for they can each in one sense be regarded as inherent patterns. They each have a structure that is immediately apparent to the musician who plays them. Kubik and others have laudably stressed that the study of an instrument is greatly aided if “musicologists actually learn to play the instrument which they are investigating” (Tracey, 1969 p. 22). If, however, they do this without at the same time trying to discover the concepts that lie behind the physical action of playing a part, there is the danger that one may assign to it a separate importance that may often be irrelevant. Kubik's comments on the additive nature and bipartite organisation of individual parts (Kubik p. 38-39) in *Amadinda* pieces are an example of this. The parts may appear to have such qualities — but they are qualities that arise incidentally from a process of composition that demands a complementary function from each part — as if the pieces are composed by two persons who, through a clear logic and perfection of teamwork, share out the task of outlining song themes in a physically satisfying manner. This does not mean that a performer will not enjoy the way in which patterns he perceives in his own part will, as often as not, cut across the phrase structure of the song. Nowadays, however, there is evidence that even Ganda students, let alone Europeans, learn *Amadinda* pieces without hearing clearly the way in which their own parts relate to the vocal theme. In view of this complementary nature of the two parts, the suggestion that *Okunaga* and *Okwawula* parts in the *Amadinda* style have “nuclear and contrasting” functions respectively, (Kubik p. 37) must be deemed misleading. Both parts contribute to the task of outlining the song and both use what I have termed ancillary notes in doing so. It may often seem that the *Okunaga* part has the major share, but this is because its notes

26. See Kyagambiddwa (1956, p. 80) for a version of this song.

coincide with the first morae of long syllables on the clap pulse and frequently elsewhere. Except where there are pitch glides, the first mora of a long syllable usually establishes the sung pitch of the whole.

THE OKUKOONERA PART IN AMADINDA MUSIC

This is the third part played on the top two keys (Nos. 1 and 2) of the *Amadinda*. As Kubik says, the part is based to a very large extent on the different patterns produced on the two bottom notes of the instrument when any song is played in any one *muko*. Despite what earlier writers say about the part, its function to me is still rather a mystery and we have little in the way of explanation from the Ganda themselves to help us. However, since this paper would be incomplete if I were to ignore it altogether, I shall make two tentative suggestions for readers to consider in the light of what Kubik (1962) and others have previously written.

1. It may indicate, as I discussed earlier (p. 69), a general preference for complex timbres — sounds that are rich in the higher harmonics. These two notes of the *Okukoonera* part can well be regarded as harmonics of notes 1 and 2 in the lower octaves and since they are rarely exactly in tune with the lower octaves this impression of complex timbre is further enhanced. I quote for what it is worth the remark of a Ganda musician²⁷ after listening to Soga students adding the top part to their *Embaire* songs, "I like the bit of sugar on the top!"

2. The *Okukoonera* device may have a parallel in the part played by the smallest flute *Akatemyo* in flute ensembles. While other flutes richly delineate the vocal theme over a span of several octaves — for there are six different size flutes in the *Baakisimba* flute ensemble — the *Akatemyo* player sounds a series of high-pitch short phrases based generally on a rapid alternation of two notes. The part adds considerably to the heterophonic effect of the whole ensemble and one is reminded of the incantatory style I described earlier (p. 68). Can it be that the *Okukoonera* part is a highly stylised version of this semi-speech style? Ganda musicians tell me that the *Akatemyo* part certainly does have this other type of text function. An important difference, however, is that the *Akatemyo* part seems to be in no way extractable from other flute parts whereas *Okukoonera*, as Kubik has said, is generally extractable and so can usually be regarded as an inherent rhythm made more prominent.

CONCLUSIONS

It is generally accepted that instrumental compositions for the *Amadinda* and *Akadinda* xylophones are based on songs. The point of this paper has been to stress that any approach to a study of how the instrumental pieces are composed must first take the form of a detailed comparison of the internal structure of the pieces with that of the sung versions, bearing in mind what we can discover about the song structures themselves and their relationship with speech.

This is clearly a different approach from that of Kubik who while recognising that "the vocal part is contained in both versions" concerns his readers more with a musical analysis of the individual parts and the way in which they combine, hoping in this manner "to distil the norms of composition that bound the ancient composers."

An inherent problem of the approach I have adopted is that data on instrumental pieces is incomplete unless when recording and learning those pieces one collects at the same time from the self-same musicians the sung versions they associate with them. Thus I have had to deduce from my own recordings (and others) sung nuclear themes that I considered relevant to the instrumental forms I wished to examine. I doubt if any musicologists could use Kubik's 102 transcriptions for anything more than superficial

27. Christopher Kizza, a fine musician in the traditional sense and a versatile instrumentalist; at present teaches traditional music and dance at the National Teachers' College, Kyambogo, Kampala.

musicological analysis unless they had — as I was fortunate to have — a number of recordings of songs of the same name, some of them sung by the same musicians with whom Kubik studied.

In spite of this difficulty, I have attempted to demonstrate that each note of a xylophone song in Ganda culture can be associated with a specific function related to speech patterns of the sung versions. I summarise my results thus:

1. The basic syllabic structures and phrase lengths of the songs are not altered in instrumental forms.
2. Essential notes correspond in pitch with prominent morae in the texts.
3. Ancillary notes fulfill a variety of functions:
 - (a) They lend prominence to syllables that are prominent in the song.
 - (b) They mark the end of tone groups and the ends of sections, usually lending prominence to the next entry.
4. The pitch of ancillary notes bears a simple intervallic relationship to one or both of the notes they separate in a way that is paralleled very closely in flute styles and those of other instruments, the dominant interval being a Ganda fourth or its reciprocal. This interval seems to be an inherent feature of the tonality of Ganda speech and song.
5. The basic parts are organised so that regular physical movements are maintained for each.
6. The *Okwawula* part in the *Akadinda* style is a compromise between the desire to achieve 1, 2, 3 and 4 above and the physical and spatial limitations imposed on the players.
7. Inherent patterns and internal structures of individual parts arise as a result of the above processes. They are appreciated and, to a limited extent, exploited by the performers.
8. Each part complements the other, while having an identity of its own. The *Okumaga* part in both styles falls on the clap-pulse and is often more easily perceived to be related to the vocal theme; it is also the first part to commence any performance.

The analyses I have may be of use to the would-be adaptor of Ganda songs to the xylophone. Kubik's descriptions of how his informants went about building songs or reconstructing forgotten parts tally closely with similar situations I observed, and fit in well with the process I have tried to describe. While I have tried to demonstrate my conviction that study of instrumental styles practised by African peoples south of the Sahara must proceed in close company with the study of related speech and song, I am not satisfied that these results are of themselves conclusive. We may well have to await further progress in the study of the language itself before the process is thoroughly understood.

ACKNOWLEDGEMENTS

I acknowledge with gratitude: the kindness, hospitality and patient help given by Ugandan friends too numerous to mention individually; Mrs. G. Brown of the Department of Linguistics, Edinburgh University, for her invaluable help in analysing Luganda speech patterns.

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