The University of Cape Town

African Music and its Use in the School: An Investigation

A Dissertation Submitted to the Faculty of Music in Fulfilment of the Requirements for the Degree of Master of Music (Education)

by

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Although musical concepts such as rhythm and harmony are discussed separately, they appear as a gestalt in African music.

The second part of this dissertation concentrates on the use of African music in the school. This finds its beginnings thus: The author, during his undergraduate years at the University of Cape Town, had found close parallels between African musical practice and Orff-Schulwerk, which is the application of Carl Orff's educational ideals in the school.

The author has found it necessary first to discuss the basis of Orff-Schulwerk before investigating the suitability of its use in the teaching of African music.

The penultimate chapter is a report of a survey conducted at two non-African schools to assess the following:

(a) increase in knowledge of various musical aspects through the use of African music;
(b) development of interest towards African music through exposure to various aspects thereof;
(c) development of attitude towards African music.

In the last chapter the author suggests possibilities for future research in the field of African music in education.

Wherever possible, musical aspects are discussed with reference to musical examples and illustrations. There is also a small element of repetition in order to avoid too many cross-references.

ABSTRACT

The purpose of this dissertation is to investigate the educational possibilities of African music in all schools.

To the best of the author's knowledge, African music is almost completely ignored in most non-African schools in South Africa, and where it is taught, the essential elements which make the music "African" are almost completely ignored. It seems deplorable that such a rich musical resource has hardly been tapped in the non-African school. This state of affairs comes about because of negative attitudes towards things African in general and towards the African in particular.

In his research in the Western Cape, the author has found that Africans no longer play traditional musical instruments such as the bow and that there is an increasing tendency to move away from traditional musical instruments in favour of Western ones.

It is hoped therefore that this dissertation will lead to an appreciation of African music at all schools and that it will somehow contribute towards the revival of bow-playing in urban African communities, because a large part of this dissertation is devoted towards bow-playing and its possible uses in the school.

This dissertation is in two parts: the first is a broad systematic introduction to African music, with special reference to African music in South Africa. In this section musical aspects such as form, harmony and rhythm are discussed separately. The influence of speech on song and categories of Nguni song are also included in this section. There are also detailed descriptions of some of the instrumental types in Africa and their uses in society.

It should be stressed that the terminology used in both parts, for example, 'cross-rhythm', is not necessarily the terminology used by the Africans, but is used here to facilitate understanding by all.

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My parents and Cheryl, whose support and encouragement will always be appreciated.

GLOSSARY OF SIGNS AND TERMS

A LINGUISTIC

↓ : depressor consonant

↘ : high to low intonation

_ : low to high intonation

B MUSICAL TRANSCRIPTIONS

 : glide from a high to a low note

 : glide from a low to a high note

+ : sharper than #

ƀ : flatter than ♭

CONTENTS

PART I

Chapter One

African Music: Perspectives

WESTERN ATTITUDES AND RESPONSES TOWARDS AFRICAN MUSIC - PAST AND PRESENT

From childhood we form attitudes concerning given phenomena, either consciously or subconsciously. These attitudes, whether correct or incorrect grow in us and often remain with us for the rest of our lives.

A. M. Jones says that there is a curious charm "in reading what our forefathers noted about African music; a charm which arises partly from the satisfaction of projecting ourselves into the Africa of the past, partly from the quaintness of their language, and not least from the attitude with which these old writers approach African music, some of whose observations were very acute." (1)

F. Warren is even more explicit:

> There is often a correlation between one's feelings about people and one's attitude towards the music they make. Africans had been colonized, exploited and enslaved by Europeans and Americans for hundreds of years. It is virtually impossible for one group of people to inflict terrible damage on another group without regarding them as inferior members of the human race. Differences between peoples and cultures become inequalities under such conditions. If Africans are inferior and uncivilized, then so must be their music. (2)

Let us examine some of the responses towards African music which range from the superstitious to the descriptive, to the intolerant and ethnocentric; to the ethnomusicological and to some of the common present-day attitudes.

One of the earliest written accounts of European encounter with African music can be found in The Periplus of Hanno, by C. Simonedes, which describes the naval expeditions down the

(1) A.M.Jones: "East, West, North and South", African Music, Vol 1, No 1, p. 4
(2) F.Warren: The Music of Africa: An Introduction, p. (vii)

coast of West Africa by Hanno the Carthaginian in about 500 B.C.:

> 'Having taken in water,' he says, 'we sailed thence straight forwards, until we came to a freater gulf, which the interpreter said was called Hesperon Keras (the Horn of the West). In it was a large island and in the island a lake, like a sea, and in this another island, on which we landed; and by day we saw nothing but woods, but by night we saw many fires burning, and heard the sound of flutes and cymbals, and the beating of drums, and an immense shouting. Fear therefore seized on us, and the soothsayers bade us quit the island.' (3)

Although Hanno was terrified, he must have listened long enough to be able to identify the instruments with the nearest ones of his own culture. Many people today still think that African music is just drumming and singing.

El Bekri, who in 1086 A.D. wrote a book, L'Africaine Septentrionale, describing the Sahara, Ghana and other northern and north-western regions of Africa, supplies a rather more descriptive account of African music than Hanno; even to the point of naming a drum. Of Ghanaian music he writes:

> When an audience is granted to the people ... the opening of the Royal Session is announced by the sound of a certain drum which they call deba, and which is made of a long block of wood hollowed out. At the sound of this instrument, the people foregather. (4)

On the other hand, Grevenbroeck in 1689 describes the music of the Cape Hottentots in a manner which easily betrays his bias:

> Their women sing an old song, nearly always the same, and to accompany it they strike their hands on a skin which is stretched over a pot which is made fast by bands and riems which does not make a pleasant impression upon European ears. The tambourine players sit with legs crossed underneath them, on the ground, now raising their eyes to heaven and to the moon, and now lowering them towards the ground and

(3) A.M.Jones: "Drums Down the Centuries", African Music, 1957, Vol 1, No 4, p. 10
(4) ibid., p. 10

> to the pot filled with milk, making their music in their own way and with redoubled shrieking. (5)

The fact that Grevenbroeck uses the words "sing an old song, nearly always the same" is interesting because the idea of cyclic form is being alluded to here. (See Ch. 5 on "Form in African Music".)

On the other hand, M. Adanson in 1750 gave such an accurate account of a hoeing dance he saw in Senegal, that it can probably be regarded as one of the first ethnomusicological accounts of African music:

> The negroes do not dance a step, but every member of their body, every joint and even the head itself, expresseth a different motion, always keeping time, let it never be so quick and it is in the exact proportioning of his infinite number of motions that the negro's dexterity in dancing chiefly consists. (6)

In the field of instrumental music, Father dos Santos in 1589 supplies a very accurate description of the playing technique of the Shona mbira of Zimbabwe (See also Ch. 4.)

> |The Shona| play upon this instrument by striking the loose ends of the rods with their thumb-nails, which they allow to grow long for the purpose, and they strike the keys as lightly as a good player strikes those of a harpsichord. Thus the iron rods being shaken and the blows resounding after the fashion of a jew's harp, they produce altogether a sweet and gentle harmony of accordant sounds. (7)

Ward, in 1927, was one of the first to point out the poly-rhythmic organization of African music in the Gold Coast and was probably one of the first to find this type of organisation in Africa as a whole:

> Broadly speaking, the differences between African and European rhythms are that whereas any piece of European music has at any one moment one rhythm in command, a piece of African music has always two or three, sometimes as many as four. (8)

(5) ibid., p. 10
(6) ibid., p. 5
(7) P. Berliner: The Soul of Mbira, p. 41
(8) W.E.Ward: "Music in the Gold Coast", Gold Coast Review, July - December 1927, p. 211

The present-day enlightened attitude comes about particularly as a result of Twentieth Century sciences such as sociology, anthropology, psychology and allied fields.

A. Tracey says that non-Africans find African music initially attractive, because of the lively rhythms, the use of harmony and scales which seem to resemble Western ones, and interesting instrumental sounds. After this the strangeness sets in because basic assumptions of Western music are denied, leading to confusion and rejection. This mixed reaction remains typical of Western attitudes expressed in clichés, for example: "How well they harmonize." (9)

One of the assumptions of African music which is denied in Western music is the cyclic ostinato form. Africans tend to repeat the same ostinati on instruments or to sing the same melodies, often for hours on end. Western assumptions are that there must be linear thematic growth; key contrasts and recapitulation. These are not found in African music.

An example of an instrumental ostinato typical of African music is the following, played by the Azande of Zaire:

Fig 1: Kundi harp cycle Azande: Central African Republic

(10)

A. Tracey mentions that the Westerner may perceive this sort of thing in the following sequence:

(i) It's interesting.
(ii) I like the beat.
(iii) It's the same isn't it?
(iv) He's going on a bit.
(v) It's enough.
(vi) It's driving me crazy.
(vii) Stop! (11)

(9) A.Tracey: "White Response to African Music", paper presented at the Ethnomusicology Symposium, Grahamstown, 1980.
(10) G. Kubik: "Harp Music of the Azande", African Music, Vol 3, No 3, p. 59
(11) A Tracey: op. cit.

DEFINITION OF AFRICAN MUSIC

While it is true that African music is as diverse as the languages of Africa, it is also true that there are sufficient unifying characteristics for this music to merit the generic title, "African Music". In the words of J. Nketia, the eminent Ghanaian musicologist: "The most important characteristic of this family of musical tradition is the diversity of expressions it accommodates, a diversity arising from different applications of common procedures and usages." (12)

Dr Hugh Tracey, in a paper presented at Liverpool University in 1965, described African music as follows:

> ... the music under discussion is the compositions of indigenous, sub-Saharan, African people, and without recognisable foreign influences. This music shows the same integrity, logic, sensibility and originality as do their own languages. Like their languages, a single variety of music-making may be found only within a limited area, but taken together, the different varieties are found to share certain common characteristics which justify their inclusion under the title of African music. (13)

It is significant that both Nketia and Tracey speak of certain "common characteristics" when they describe African music. On the other hand, in Tracey's words, a "single variety of music-making may be found only within a limited area." This unity and diversity of African music should become apparent throughout this dissertation.

The author defines African music as follows (by the term "African Music" he does not include the Arab-influenced music of the North and East coasts):

African music refers to the indigenous (i.e. not influenced by foreign cultures) musical practices of "black" Africans of sub-Saharan Africa. Although African music is as diverse as African languages, like the languages it exhibits certain common characteristics. Below is an outline of (i) the diverse characteristics of African music and of (ii) the common characteristics of African music.

(12) J.H.K. Nketia: The Music of Africa, p. 4
(13) H. Tracey: "A Plan for African Music", African Music, Vol 3 No 4, p. 6

(i) The diverse characteristics of African music: The different sub-types of African music follow the African language and dialect boundaries very closely. This is also true of scales and tunings. This accounts for the fact that Africans generally dislike the music of their neighbours.

Africans craft their musical instruments from materials of their local environment. Because of the widely varying geographical environments in Africa, there is a wide variety of instruments.

(ii) The common characteristics of African music: In music-making the African always strives for contrast. This is particularly evident in the element of conflict between one rhythm and another; between one vocal part and another in choral antiphony; between the steps of the dancers and instrumental accompaniment, and between vocal melody and instrumental accompaniment. It is because of these essential features that the same piece of music retains the African's interest for a long time.

The use of music being structured in repeating cycles is found all over "black" Africa, from South to West Africa. African music is structured around rhythmic relationships and this involves the cycle, metronomic beat, and a close relationship among the participants in the ensemble. This relationship reflects those in African society.

The "call-and-response" (antiphonal) form is so prevalent in Africa that it can be regarded as a characteristic of African music.

Buzzy edge-tone is very characteristic of many African musical instruments, particularly the mbira, the xylophone and on various drum-types. Edge-tone plays an important function in African music: it amplifies the notes, gives more penetrating power and gives rise to inherent rhythms (see Ch. 4).

In most African cultures, song, dance, instrumental music and social function all exist as co-partners in a musical gestalt. The Chopi timbila ensemble (Mozambique) is a typical example of this feature of African music.

African songs assume a functional importance in African culture. This brings about a diversity of song-types, even within single African cultural groups.

SOCIO-POLITICAL PERSPECTIVES OF AFRICAN MUSIC

Social Perspective

The chief difference between African and Western music is function in society. Western music is regarded as a pure art form, reserved for the 'talented' and enjoyed, hopefully, by the listener. Most Westerners only have a listener's status as far as music is concerned and the advent of the virtuoso has done much to perpetuate this, namely by narrowing the definition of 'performer' and broadening the definition of 'listener'. High-pressure advertising, the media and other factors have done much to condition the Westerner to be content with buying a record, going to a concert or simply listening to the 'Hit Parade' — this is entertainment. The nearest he can hope to participate actively in a musical event is either by dancing in a discotheque or singing in church or both. Of this stultifying aspect of Western music, Ballantine says:

> Music ... is a perfumed balm to tranquilize and lubricate a system geared to profits. In this gutted and pre-digested form we meet music everywhere: it is the gently ooze that welcomes us in supermarkets, anaethetises frayed nerves in offices and factories, exhales over us in lifts and aeroplanes, screams at us from ice cream vans, sings radio and television commercials at us with mind-deadening regularity and leaves us humming to the tune of Coca-Cola, American cigarettes and beauty soap. And although this applies most obviously to what we call 'popular' musical styles, there is hardly a sphere of contemporary music or of the classical music of the past that is immune to this sort of expropriation. (17)

In African music the dividing line between performer and listener is very thin, allowing each individual to come into direct contact with the music, which for him has deep social significance. Dance, drama and music co-exist as equal partners in African music.

Music in the African community is not always made for its own sake.

(17) C.Ballantine: "Music and Society: The Forgotten Relationship", Inaugural Lecture, University of Natal

but usually signifies some occasion, situation or feeling. This many-sided role of music is reflected in music reserved for daily and seasonal activities which include rain songs, walking songs, threshing songs, pounding songs and the like, and music commemorating various life stations, for example, initiation songs and wedding songs. Music also plays an important part in rituals such as the Shona ancestral worship, and praises to the gods.

Changes in music come about when the African finds himself in another environment, either voluntarily of involuntarily. Urbanization, for example, has led to town music, of which the South African "kwela" is typical.

The advent of Christianity has caused the African to abandon cult music in favour of Western hymns.

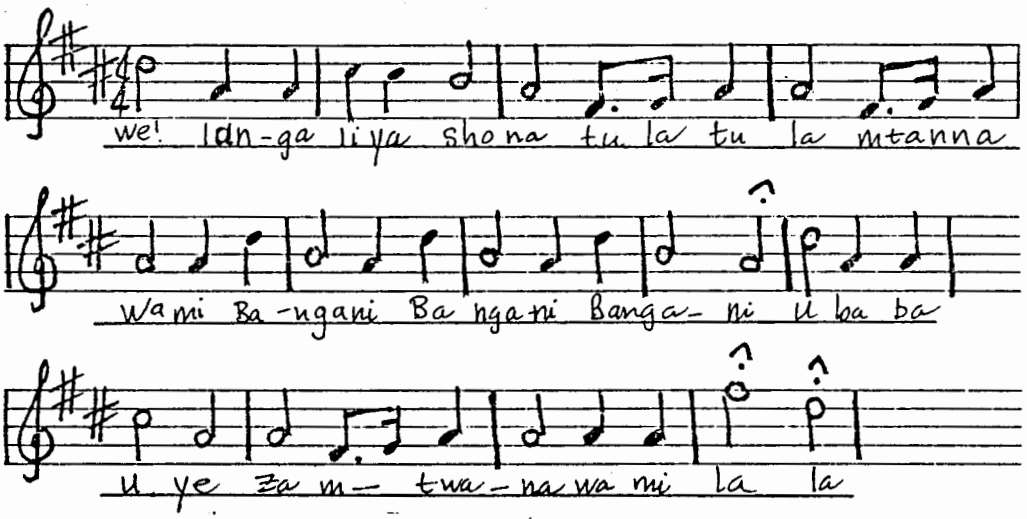
When a social function dies, so does the music. Dr Hugh Tracey recorded a number of "mouse hunting" songs, sung by Sotho men and boys from Botswana, which shows perhaps the present state of big game in that territory. (18) A wealth of war songs has disappeared because inter-tribal warfare is a thing of the past.

Willard Rhodes correctly noted that as the African's pattern of living and employment changes he tends to cease practising the music of his former activities and way of life. (19) Because of this, many urban Africans regard traditional music as "bush".

Many African songs teach important moral lessons; even lullabies have this characteristic. Zulu children are taught to keep quiet in front of their fathers. The example below, besides having the use of hushing the baby to sleep, also teaches it to be quiet in front of its father.

(18) H.Tracey: "African Music Within Its Social Setting", African Music, 1958, Vol 2 No 1, p. 57
(19) W.Rhodes: "Changing Times", African Music, 1959, Vol 2 No 2, p. 4

Fig 3: Zulu Lullaby Transcribed by C. Seligman



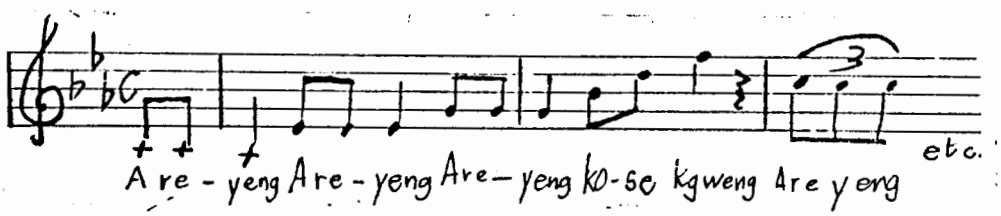
(20)

Translation:

Oh! the sun is setting.
Hush, hush, my little one Bonganie,
Father is coming, my baby, sleep.

A Tswana song, called Sennanapo, teaches children not to go off with strangers.

Fig 4: Extract from Areyeng, a Tswana Song by Sejamutla. Transcribed by the author from a 'live' performance



(21)

Tswana Text:

a re yeng ko sekgweng
rego rwalela le Senannapo
S'nannapo a kotle rego rwalela
tla rego rwalla ko
Sekgweng.
ko sekgweng rego rwalla dikgong

(20) C.G. Seligman: Races of Africa, p. 119
(21) As sung by St. Anthony's Choir, Langa, Cape Town.

a re boneng go re emang yo nonneng
ke Sethebe sa kgosi
a re beseng Molelo me re tle re o tlole
Tlola Direo
Tlola Manini
ke tlotsi le Matlakala
ke tlotsi le Matlopule.
kele sepetsi ke tlutsi
ke tlotsi le Dikeledi
u sule
atlholang utsa ya yive lesapo

Snannapo ba molaile
Snannapo a re keleje
nna ka le gana
Snannapo gake ke je notho
Snannapo e le munivake

Bunyana 'lutui le pa motho a suthve ditvolo
tsaa katsadi gore gv dira galajung
ka ba ka ga Senannapo

Translation:

Let's to the forest to fetch some wood Senannapo
Let us dig a hole
Let us make a fire
Let us see who jumps (over the fire)
While the fire was burning Dineo and Manini jumped.
Matlakala jumped
Dikeledi jumped
She (Senannapo) was pushed
She died
Take her home, give her bone to the dog
The dog replies they killed her
and they gave him her bone
He refused
I don't eat a person because Senannapo is my owner
Children must listen to their parents
on account of Senannapo.

More examples of the deeply rooted social signigicance of song-texts can be found in Chapter 2.

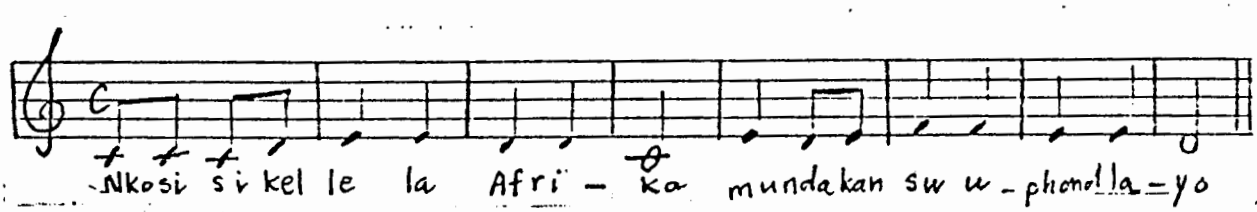
Political Aspect

Political songs are becoming increasingly in vogue in South Africa - they are also called freedom or protest songs. Because African music is by its very nature situational and because free expression is allowed in the music, the political theme, expressed in song, becomes inevitable.

The South African Black National Anthem is a case in point. According to D. Coplan: "Since its composition in 1897, Enoch Sontonga's 'Nkosi Sikelel'i Afrika (God Bless Africa)' has transformed from a mildly nationalistic Xhosa hymn to a fiery call to arms for the A.N.C. and most recently by the Soweto Student's Representative Council." (22) Although the words and music of this anthem remain the same, its meaning has changed according to the prevailing social situation.

Fig 5:

Extract from Nkosi Sikelela

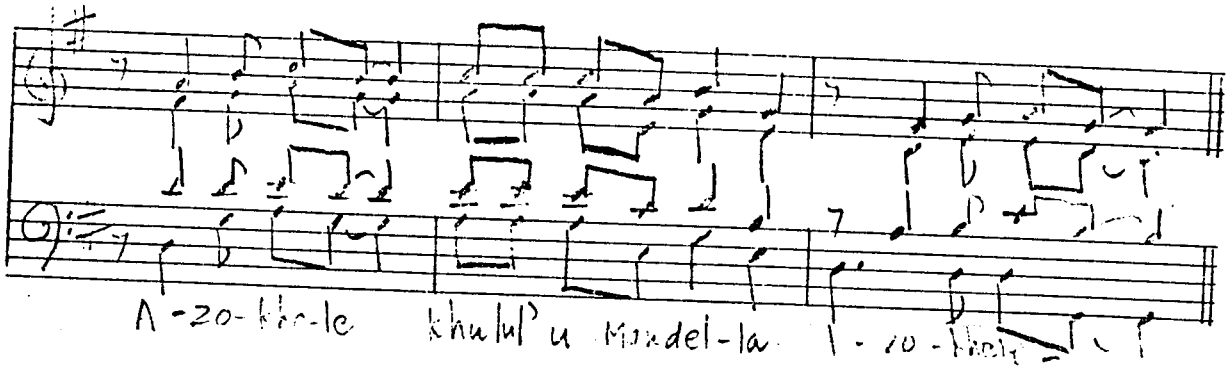


Some political songs are made up almost spontaneously while others are text adaptations from hymns, traditional songs and other well-known songs.

(22) D. Coplan: "The African Performer and the Johannesburg Entertainment Industry: The Struggle for African Culture on the Witwatersrand", Labour, Township and Protest, edited by B. Bozzoli, p. 201

Fig 6: Xhosa Protest Song

Transcribed by the author from a tonic sol-fa copy.



Translation:

Open Botha
We are a'knocking
Release Mandela
Our leader.

Protest songs have become so much part of the social life of the African community in South Africa that they are even sung during initiation school. The author has come across this particularly among the Xhosa, because he has heard young initiants singing these songs.

African Music in the Western Cape

Living in the Western Cape has made the author aware of the strong musical activity in the Langa and Guguletu townships. Concerts and eisteddfodau are held regularly and the singing repetoire is large, because choirs do not limit themselves to singing Xhosa songs exclusively. They also sing Zulu, Tswana, Sotho and English songs.

Traditional music is not notated, belonging to an aural tradition, but composed choral music is notated in tonic sol-fa. Primary school children read tonic sol-fa notation fluently, having little or no difficulty in singing in three or even four parts. This remarkable ability is found in most black South African schools and is perhaps equalled only in Hungary, where children can sing tonic sol-fa in parts.

Even at concerts, the social influence on music remains strong. When the audience knows the song which the choir is singing, they join in freely. Usually three songs are sung. The opening number of each choir is traditional, with the music accompanied by light foot-stamping, carefully choreographed. When members of the audience wish to join in, (this is nearly always the case) they go up to the stage and move along. The middle number is usually more "classical" in orientation, and choirs frequently choose Western choral music, for example, "Behold the Lamb of God", from Handel's "Messiah". There is an absence of movement in these. The final number is always similar to the first both in spirit and in style.

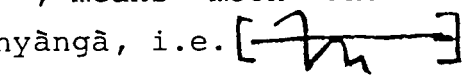
It is not unusual for these concerts to last the best part of six hours, but when the listener attends them, the vibrant, lively atmosphere is so compelling that it draws the listener into the res gestae, a conglomeration of singing, dance and audience participation.

Chapter Two

Aspects of African Song: Focus on Zulu and Xhosa Songs

SPEECH AS A MELODIC DETERMINANT IN AFRICAN SONG

All "black" African languages, with the exception of Swahili, are tone-languages, so-called because word-meaning is determined by vocal intonation, whether high or low, on each successive syllable. One word, therefore, often has two or more meanings which are ultimately determined by the intonation of the speaker.

For example, the Zulu word 'inyanga', when pronounced ínyàngá, i.e.  , means 'moon' and when this same word is pronounced as ínyàngà, i.e.  , it means 'doctor'.

Ekwueme in 1973 showed how, in the Igbo language of Nigeria, the word 'akwa' can have four different meanings depending on the intonation of the two syllables 'ak' and 'wa'. (1)

ákwá	(high-high tones)	sorrow, tears, crying, weeping
álwà	(high-low tones)	cloth, clothes, dress
àkwà	(low-low tones)	bed, bridge
àkwá	(low-high tones)	egg

If a foreigner should wish to say: "I like your dress" in Igbo, he must intonate 'akwa' as ákwà to avoid such an absurdity as: "I like your sorrow" (ákwá).

In rare cases, a word may have two or more different meanings without any perceptible differences in intonation. The Xhosa word 'úphòndò', which can mean either 'province' or 'horn' takes its meaning according to its context in a sentence.

In Nguni languages the so-called depressor consonant, "which comprise all voiced spirants and stops (except the implosive 'b') and all compounds containing these sounds", (2) have the

(1) L. Ekwueme: "African Music in Christian Liturgy: The Igbo Experiment", African Music, 1973-4, Vol 5 No 4, p. 14
(2) D. Rycroft: "The Zulu Bow Songs of Princess Magogo", African Music, 1976, Vol 5 No 4, P. 69

effect of a rising glide from a low to a high intonation. Examples of these are 'nd', 'gq', 'kh', 'ph', 'm' and 'z', as used in the Xhosa words listed below. (↓ indicates the depressor consonant.)

i↓ndawo (place)
g↓qomo (police van)
k↓hupa (take out)
p↓huma (go out
m↓holo (good day)
↓zala (bear a child)

Sentence Intonation

In African languages, besides word intonation, there also exists sentence intonation, the overall tonal effect of which is a gradual contour from a high to a low intonation. It does not move in a straight line but in a descending saw-tooth pattern, called tone stepping, because of fluctuations in word intonation.

For example: Sihambé sàhámbà sáncàmà (Xhosa: We walked and walked and gave up).

All these have strong implications in song composition because spoken and sung words have to correlate to retain word-meaning. Hornborstel in 1923 was the first to discover this. He says: "The pitches of the speaking voice, indeed appear to determine the melodic nucleus, but they have no influence upon its inner creative forces; those forces, and not the quality of speech, direct the further course of melodic development." (3)

Concerning the relationship between speech and song in Nguni languages Rycroft observed:

> While speech tones can be credited with determining to a large extent the syllable to syllable rise and fall in the melodic line of a song, they cannot, by reason of the relative and variable nature of the spoken pitch in Nguni languages, be said to determine the exact intervals employed in song. It would be fruitless to seek in speech the source of exact

(3) E.M.von Hornborstel: "African Negro Music", Africa, January 1928, Vol I, p. 31

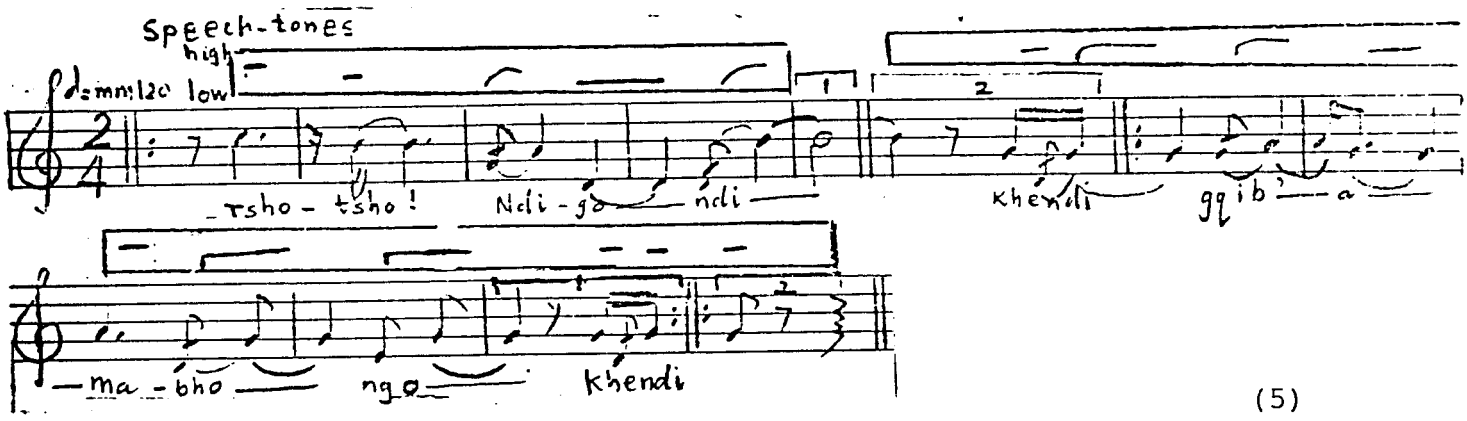
semitones or minor thirds. (4)

Hornborstel and Rycroft, although writing about forty years apart, concur strongly in their observations. Inherent in their statements is the fact that speech does not determine melodic movement absolutely, but nevertheless, to use the words of Hornborstel serves as the "melodic nucleus".

The example below illustrates the close relationship between spoken and sung tones. The speech-tones of the text are:

Tshǒtsò Ndigòndí
Khèndigqib 'àmábhongó

Fig 1: Xhosa dance song — Transcribed by D. Rycroft



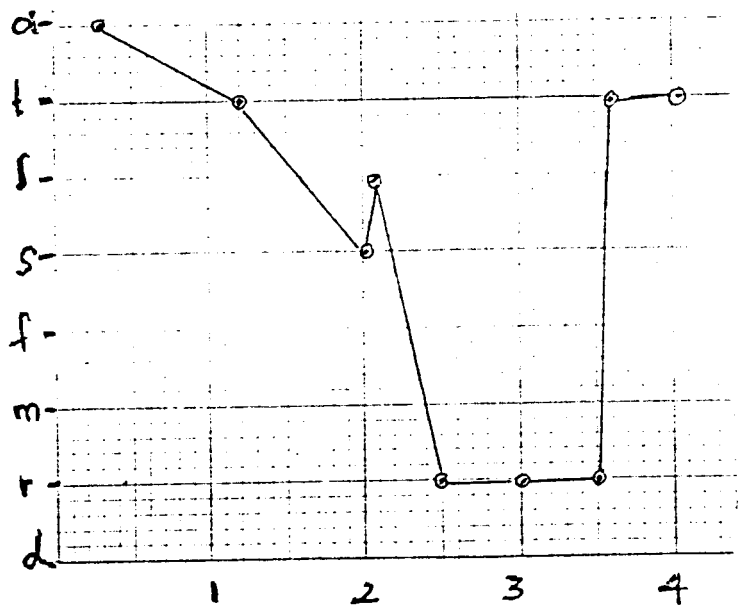
(5)

The effect of the depressor consonant, resulting in a glide from a low to a high intonation, i.e. ⌒, is immediately observable, as in 'ndigondi','Khendi' and 'amabhongo'.

The saw-tooth melodic structure of the first phrase is the result of sentence intonation, as in Fig 2.

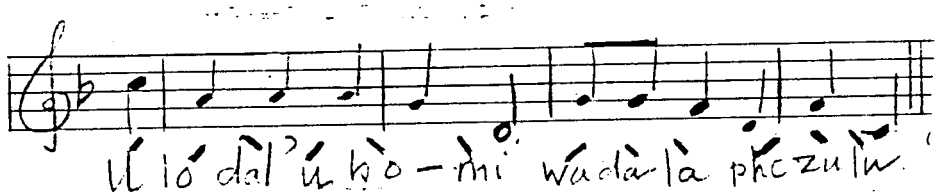
(4) D.Rycroft: "Stylistic Evidence in Nguni Song", Essays on Music, History in Africa, edited by K. Wachsmann, p. 224
(5) D.Rycroft: "Dark Music", Manchester Memoirs, 1962-3, Vol 115 No 3, p. 14

Fig 2: (Vertical axis indicates pitch, horizontal axis indicates each bar.)



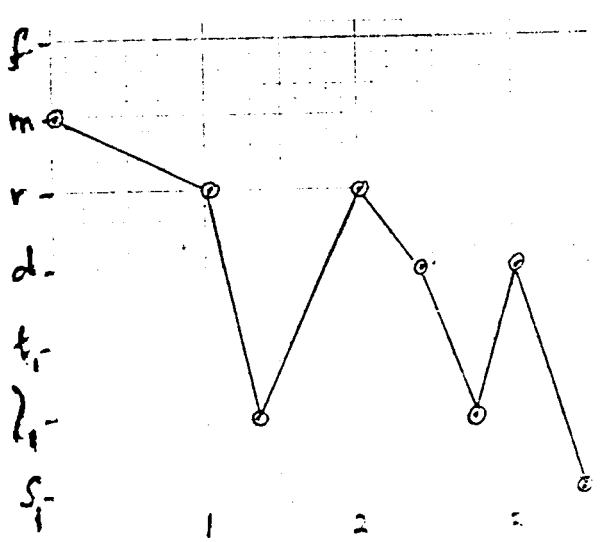
The example below also illustrates this phenomenon. The speech-tones of the text are marked:

Fig 3(a) (Extract from "Ingoma enkulu" a Xhosa liturgical song transcribed by the author from the "Sound of Africa" series, TR26,A.1)



The melodic contour can be represented in the same way as in Fig 2:

Fig 3(b):



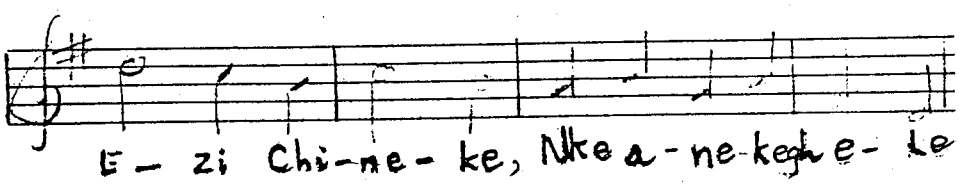
When spoken intonation is not adhered to in song, this can cause the song to mean something completely different from speech. This was (and still is) the problem when the missionaries took Western hymn tunes and substituted the text with the vernacular. Ekwueme gives a classic example of the use of Igbo words to the tune of the Christmas carol, "Adeste Fidelis" ("O Come All Ye Faithful"). He quotes the second verse:

Chuku Nwa Chuku
Ihe ebigh-ebi,
Le O leligh afo nke Nw'Agbogho;

Ezi Chineke
Nke anekegh eke;
Bianu, k'ayi sopuruya,

The fourth line of this stanza, i.e. "Ezi Chineke", when properly intonated, should mean 'True God' and the following line should mean 'not created'. However, when these lines are sung to the carol tune (as in Fig 4), they intonated to mean 'God's pig, which is never shared'. This can imply that the money which the congregation gives as an offering should never be shared by the priest!

Fig 4: (Unfortunately, Ekwueme does not give the spoken intonation.)



(6)

Many African communities have, unfortunately, come to regard this as the correct way to sing in church and to regard their own songs as unsuitable, bush and even heathenish.

On the other hand, with the emergence of black nationalism came the acceptance of the use of traditional music and indigenous musical instruments in the church. In Zimbabwe,

(6) L. Ekwueme: op. cit., p. 14

for example, mbiras are used in the church.

In the Catholic Church in South Africa, there is a trend towards indigenization because traditional instruments and tonalities are being introduced in church music. (7)

Kodaly believes that the best types of Hungarian vocal music are those that are "not contrary to the natural melody trend of the Hungarian language". (8) This statement also holds true for African vocal music.

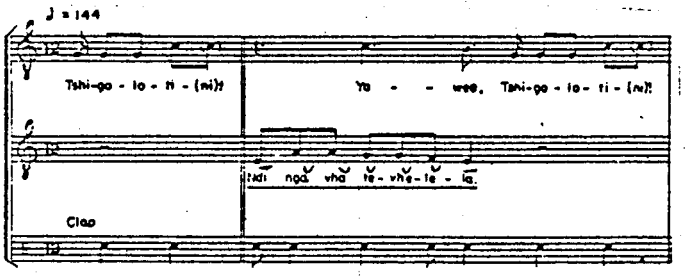
SOME ASPECTS OF AFRICAN SONG-TEXTS

African song-texts do not have rhymed verses, with the exception of Swahili. The verse below is an example of Swahili epic poetry.

Wote wakashahadia
Katika yangu karia
Pasi mtu kubakia
Rijali waba nisa (9)

Among some African peoples, the irregular metrical pattern of a text is adapted to suit the regular metrical pattern of song. In other cases an irregular phrase of words can give the rhythm to a song. Blacking came across the former among the Venda. He states: "The rhythm of a song must ... differ considerably from the spoken rhythm of its words to qualify as a song." Thus "ndi̯ ngu̯ vhu̯ tevhelelā" (cf. Fig 6) is sung to the stresses "ndi ngu vhu tevhelelā". This dactylic metre can be found in the second vocal part. (The stress insertions are the author's.)

Fig 5:



(10)

(7) Fr D. Dargie of Lady Frere (Transkei) is actively involved in this.
(8) Z.Kodaly: "Confession", New Hungarian Quarterly, 1962, Vol III No 8, p. 7
(9) A.M.Jones: "Swahili Epic Poetry", African Music, Vol 5,p.129
(10) J.Blacking: "Tonal Organization in Venda Music", Ethnomusicology, January 1970, Vol 14 No 1, p. 38

In some children's songs and lullabies a regular metrical framework of the text is used for the sake of simplicity. For example:

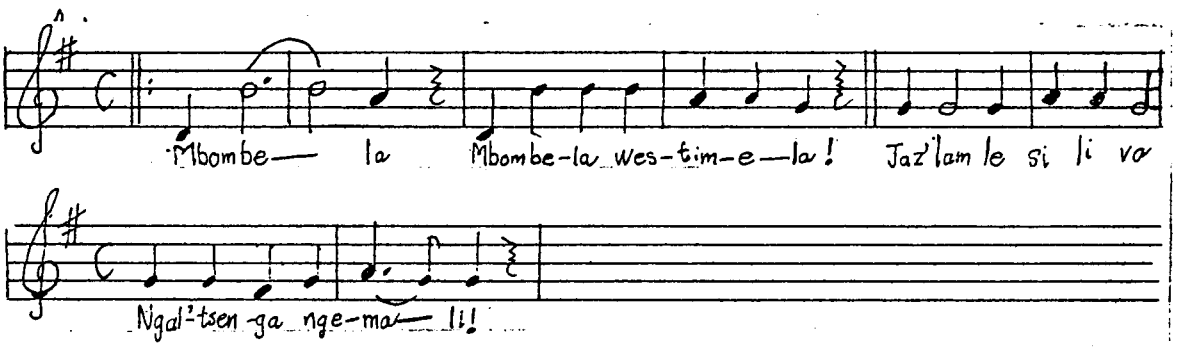
Zulu:

Mbombela westimela
Wenzani lothishela?
Eshaya abantwana!

Translation:

Old steam engine
What is the teacher doing?
Beating up young children!

Fig 6: Mbombela - a neo-African Zulu school song



(11)

THE PURPOSE OF SONG IN AFRICAN LIFE

African songs are integrally related to the African environment, experience and activity. Songs are always sung for a purpose, even the self-delectative songs, i.e. songs sung purely for personal pleasure. African songs are not necessarily agreeable to the ear because this is not always the prime purpose of singing. Of this aspect Bebey says:

> In a musical environment whose constant purpose is to depict life, nature, or the supernatural, the musician wisely avoids using beauty as a criterion because no criterion could be more arbitrary. (12)

(11) B. Mthethwa: Paper presented at Grahamstown Ethnomusicology Symposium, Grahamstown, Sept., 1980.
(12) F. Bebey: African Music: A People's Art, p. 115.

The songs of a community of river-dwellers are necessarily different from the songs of mountain-dwellers because of the differences in physical environment.

Songs, like instrumental skills, are aurally transmitted in African cultures. The existence of over a thousand African languages shows evidence of a very highly developed aural memory among the Africans. Hugh Tracey claimed that the vocabulary of a Zulu rural woman is about five to eight times that of the European rural woman of equal standing. (13)

A BROAD STYLISTIC CLASSIFICATION OF SOME NGUNI SONG-TYPES

Evidence of the strong singing tradition in Nguni culture can be found in the many words which they use with reference to singing. Some examples of this can be found in Table 1 below.

Table 1:

Zulu (14)	Xhosa (15)	Meaning
hlabelela	hlabela	any type of singing
haya	ehlobisayo	emotional song
huba	iculo	chanting
klabalasa	krasa	forced singing
chwaya	yiloza	off-key
hlaba	hlabela	lead a song
cula	cula	to sing in a polished style

(13) H.Tracey: "African Arts in the Present Day", lecture at College of Music, U.C.T., August 1963
(14) B.Mthethwa: "Zulu Folksong: History, Nature and Classroom Potential", B. Mus. Thesis, University of Natal, 1979, p. 3
(15) M.Xakelile: personal communication

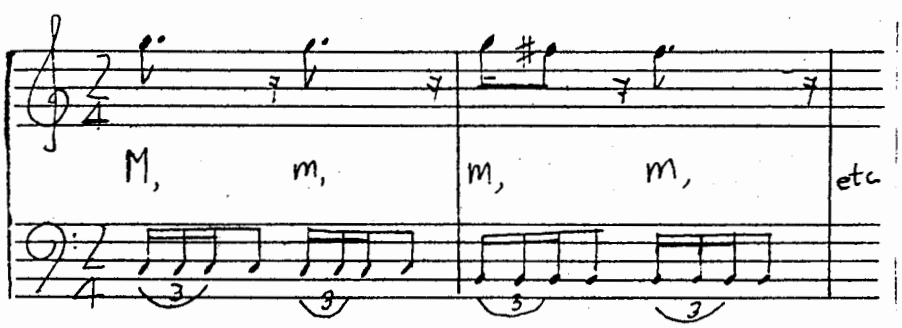
A. Stylistic Classification of Zulu Songs

Indigenous songs:

These songs were traditionally played to the accompaniment of the umakweyana and the ugubhu gourd-bows or sung according to the tonality of the bow. At present there are still many umakweyana bow players but Princess Constance Magogo, the mother of Chief Gatsha Buthelezi, is probably the only known ugubhu player. The ubiquitous guitar has now taken precedence over these instruments. Both these bows, as discussed in Chapter Four, have a provision for altering the fundamental tone: the uhadi is stopped by the fingers while the umakweyana is stopped by a piece of wire looped over the string, and also finger-stopped on the higher-pitched segment.

The chief characteristic of these songs is the harmonic shift from one fundamental to the next to be found both in the vocal and bow parts. In ceremonial songs the fundamentals are usually a semitone apart while in others, for example, dance-songs, they are a whole-tone apart. (The words "semitone" and "whole-tone" are the nearest Western equivalents because they do not occur as fixed intervals in Nguni music but vary according to individual preference.)

Fig 7: The bow-fundamentals are a semitone apart. Transcribed by D. Rycroft
From Umuntu ehlobile



(16)

(16) D. Rycroft: "The Zulu Bow Songs of Princess Magogo" African Music, 975-76, Vol 5 No 4, pp. 47-48.

Maskanda:

This word is probably derived from the Afrikaans "musikant" and is used in Zulu to refer to soloists who accompany themselves on the guitar or concertina.

Bongani Mthethwa names two sources of inspiration of the maskanda soloist: 1) the guitar improvizations suggest certain words to the performer, the result being an irrelevant text derived from the sound; 2) the singer composes as a result of his emotions at a given time. (17)

Maskanda music is not Western music, because Western instruments are used to enhance the indigenous style, and not to imitate Western styles. Of this, Rycroft has mentioned:

> Among the Zulu, what is played on some cheap Western instrument is often not an imitation of Western music at all, but rather an expression of indigenous musical principles which in some cases can be more effectively realized through these new media than could be alone on the traditional instruments they have replaced. (18)

Mbholoho:

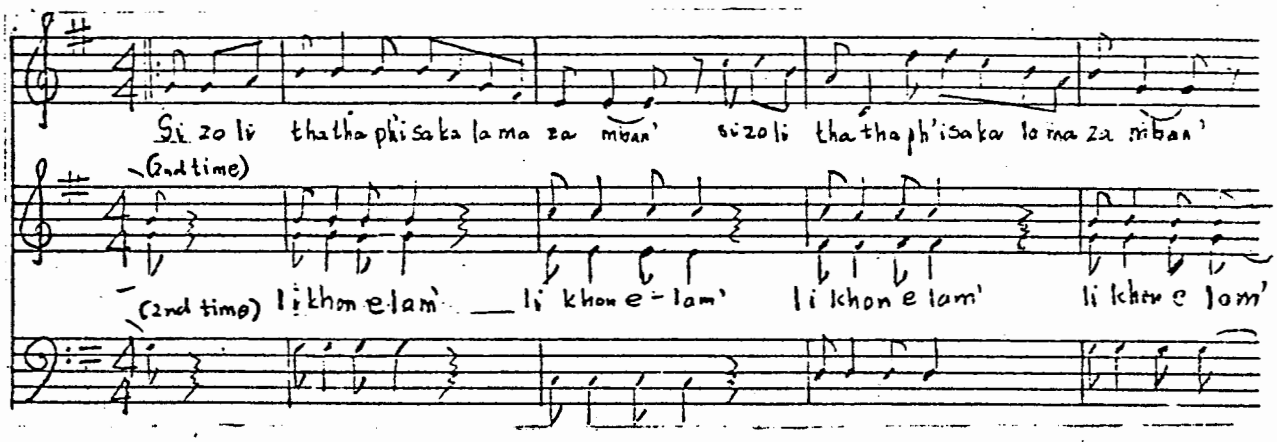
This refers to secular adaptations of Wesleyan hymns. Hymn texts are often altered for secular use. A well-known hymn, for example, can be sung to offensive or funny words. Many other adaptations are melodic adaptations above the I-IV-V-I harmony of Wesleyan hymns. This type of mbholoho is characterized by its light-hearted character and by the cross-rhythms which are established between the song and the dance steps. Of mbholoho, Mthethwa says that people who have little contact with Western music either through school or church, cannot sing mbholoho, and that, in most instances, illiterate people cannot harmonize mbholoho tunes in the typical style. (19)

(17) B.Mthethwa: op. cit., p. 11
(18) D.Rycroft: "Stylistic Evidence in Nguni Songs", Essays for a Humanist, edited by K.P.Wachsmann, p. 245

(19) B.Mtethwa: op. cit., p. 11

Fig 8: This is a melodic adaptation above the Wesleyan-type harmonic framework

Likhon elam: Zulu mbholoho — Transcribed by B. Mthethwa



(20)

Translation: Where shall we find a bag of potatoes?
I have mine!

The harmonic sequences found in the mbholoho led to modern black popular music.

Sicathamiya:

These are also derived from Wesleyan hymns, but the text-content is more serious than the mbholoho-type. This song-type originated in the Natal coal mines in the 1930's. (21) Many sicathamiya song-texts are therefore political:

Nyinja Hulumeni
Ngokwenqaba ncomsebenzi

Translation:

You are a dog, Mr Government
for refusing us jobs

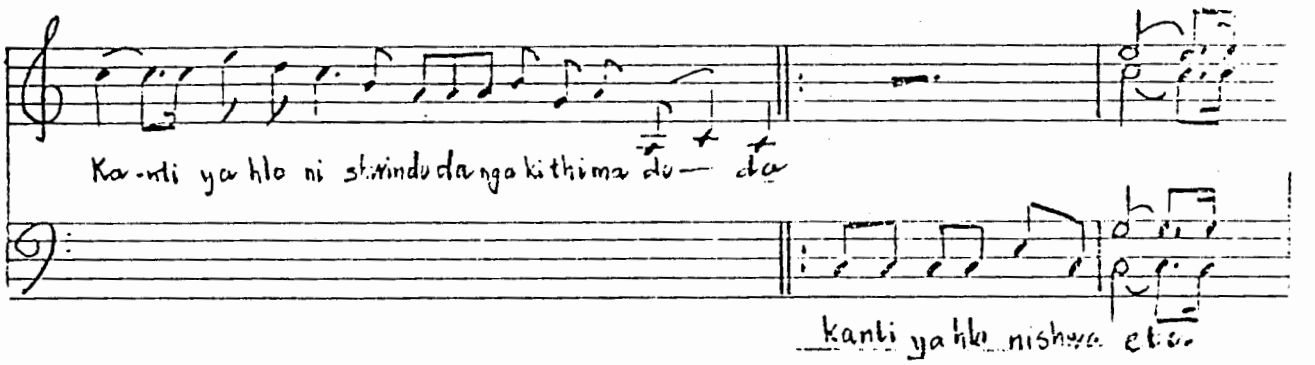
(Unfortunately, the source does not quote the music.)

Fig 9 below is an example of the sicathamiya song-type.

(20) ibid., p. 11
(21) ibid., p. 20

Fig 9: Iyahlonishwa Indoda

Transcribed by
B. Mthethwa



(22)

The full text is:

Kanti iyahlonishwa indoda Kwa Zulu
Inkulu indoda
Idla inyama, iphuze utshwala
Ilale igethuke

Naye mkhulu umfazi
Udla umfino aphuze amahewu
alale bubuluba

Ayisalali ekhaya
Umthetho wendoda lowo
Umfazi gwinya itshe
Izingane zigwiye uphuthu

Nayi ewasha inabukeni!
Yisilima sendoda leso
Umguba ugobo lwawo
Isiyoyoyo

Ngimfunge ubabamkhulu
'Umbizi zidla umhlonyana'
angizange ngiyibone iwasha inabukeni
Hayi, he, hm.

Translation:

A man is a great person in Zulu society
He eats meat, drinks liquor and relaxes
On his back with his knees in the air

(22) ibid., p.71

A woman is also great
She eats herbs, drinks mahewu (fermented porridge)
and cuddles herself up.

What if a man sleeps out?
That is natural for a man to do
The wife must swallow a stone (bear it)
and children swallow phuthu (hard porridge)

What about a man who washes nappies?
This is a real idiot
Who is no better than kraal manure
I swear in the name of my grandfather
I have never seen a man wash nappies. (23)

Sicathamiya are not sung by children, but always by the adult members of the community, who use it as a vehicle to pour their hearts out.

B. Stylistic Classification of Xhosa Songs

Indigenous songs:

These are traditionally played on the uhadi gourd bow which has, like the Zulu counterparts, been partially eclipsed by the guitar. The uhadi is still played in rural areas, for example, the Transkei. It is similar to the Zulu ugubhu, because its string is also stopped by the fingers in order to obtain the stopped fundamental, as discussed in Chapter Four.

In Xhosa indigenous music, these fundamentals, i.e. the open and stopped fundamental, are always a whole tone apart, unlike the semitonal progression as found in some Zulu music.

Maskanda:

In Xhosa, "Maskanda" refers to the person who plays the music, for example, a pianist. More recently it has come to mean "disc-jockey". Maskanda has therefore come to have township connotations and does not refer to bow-playing, both in the Xhosa and Zulu contexts.

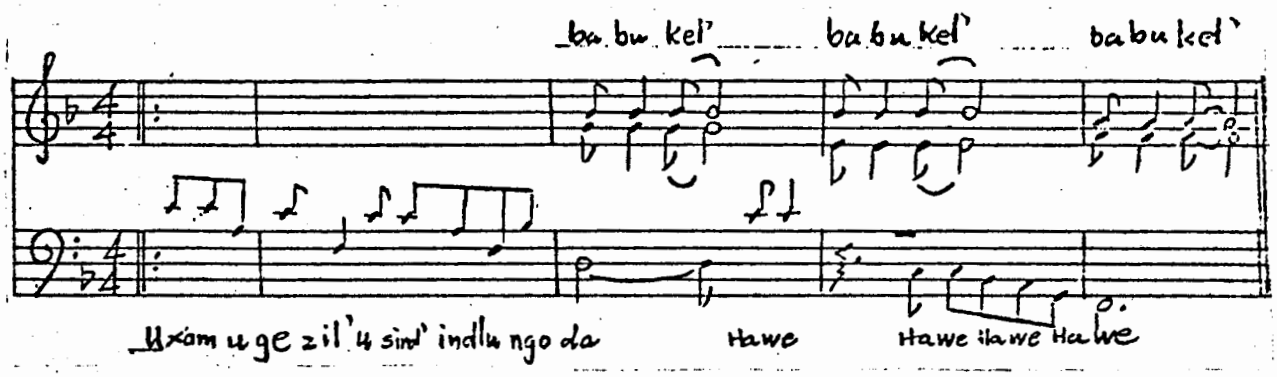
(23) ibid., p. 71

Isitibili:

This word means "sounds" and it finds a close parallel in the Zulu "mbholoho", because it is also derived from the Wesleyan hymn. Mr D.Ngcukana informed the author that isitibili are traditionally sung in the context of a wedding, where the groom's and the bride's entourages indulge in a singing competition to see which group gets tired first.

Fig 10 below is an example of this song-type.

Fig 10: Babukel: Xhosa isitibili Transcribed by the author from the "Sound of Africa" series TR26.A.5.



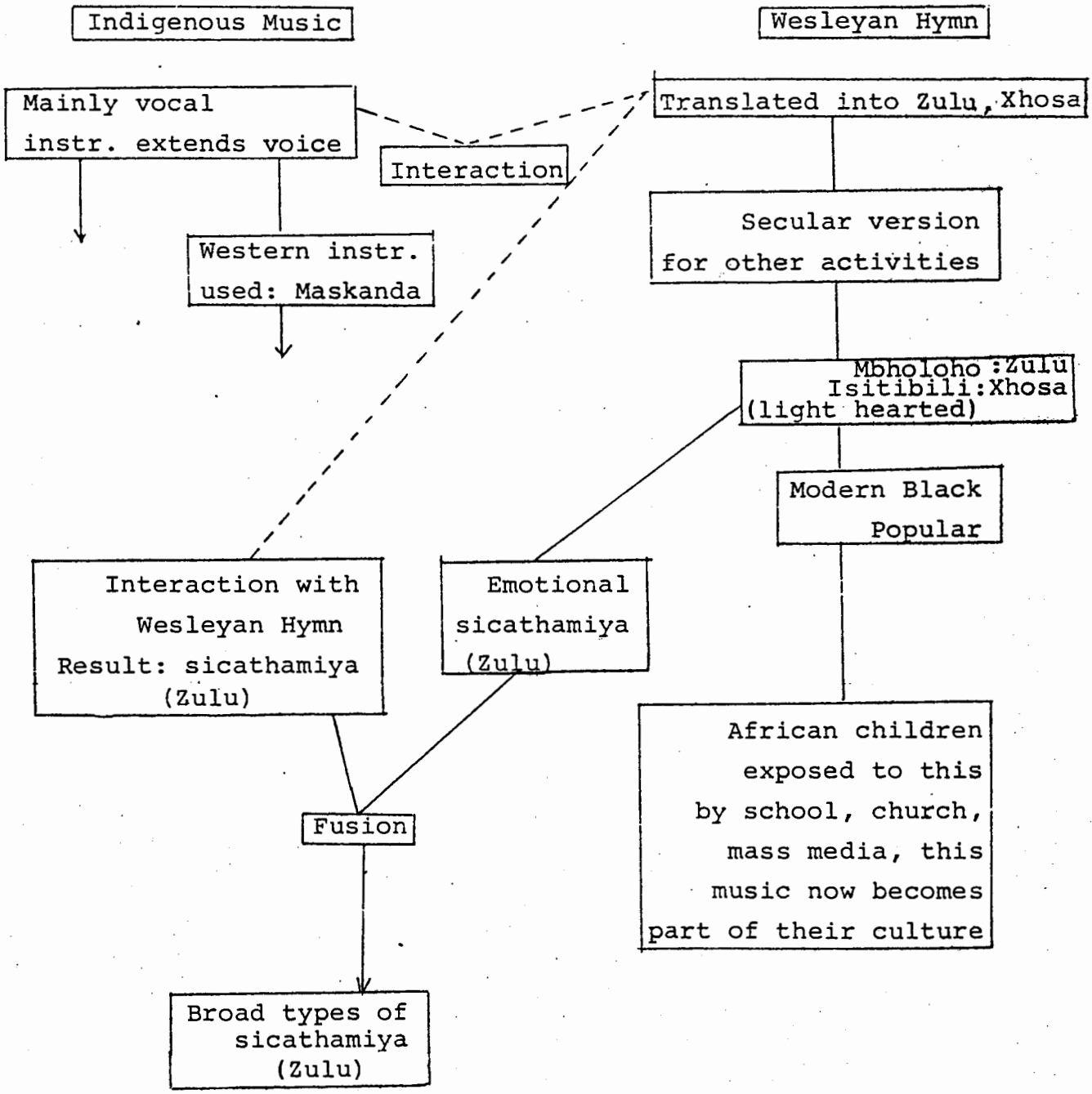
(24)

The harmonic progression of this song is, like the Zulu example in Fig 8, I-IV-V-I.

Sicathamiya are completely indigenous to Zulu culture and are not sung by the Xhosa. Many of the texts of these songs are so deeply idiomatic that even Zulu speakers find them hard to understand.

(24) Transcribed by the author from the "Sound of Africa Series" TR26.A.5

A Summary of Zulu and Xhosa Song-Types (25)



(25) B.Mthethwa: "Zulu Children's Songs", Ethnomusicology Symposium, Rhodes University, October 1980
(The Xhosa insertions are the author's.

Chapter Three

Rhythm in African Music

One of the most fascinating, compelling and yet baffling aspects of African music is rhythm. Westerners, even when they are remotely familiar with African music, when asked about it, respond in what have now become clichés: "I like the rhythm", or "I like the sound of African drums".

In more academic circles, some hold that African rhythm is comparable in advancement with Western harmony. A.M.Jones, for example, one of the early pioneers in African musical research, who in 1954 was the first to transcribe successfully the highly polyrhythmic drumming ensembles of Ghana and Zambia, makes this challenging statement: "Rhythm to the African is what harmony is to the European, and it is in the complex interweaving of contrasting rhythmic patterns that he finds his greatest aesthetic satisfaction." (1)

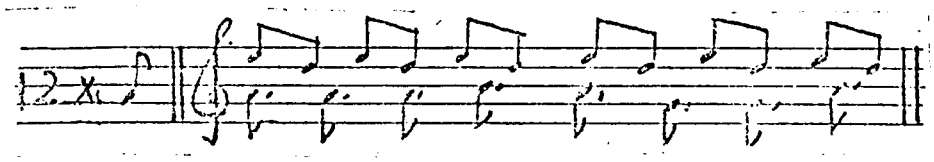
Rhythmic complexity in African music comes about through subtle relationships between two or more rhythmic patterns, or between a single rnythmic pattern and a song, rather than the irregular rhythmic usage of 'serious' Twentieth-Century music. For example the three-against-two cross rhythm is a prominent feature of African music. This aspect will be examined in more detail below.

ESSENTIAL DIFFERENCES BETWEEN WESTERN AND AFRICAN RHYTHMS

Firstly, Western musicians tend to stress the first beat of each bar while the African has a cyclic perception of rhythm, i.e. he thinks in terms of rhythmic patterns which are repeated in a cycle with each beat equally stressed within the cycle. These cycles vary in length from the short ones as found on the kundi harp of the Azande (Central African Republic) to the long ones as found on the mbira music of the Shona (Zimbabwe) or in drumming ensembles, as illustrated in Fig 1:

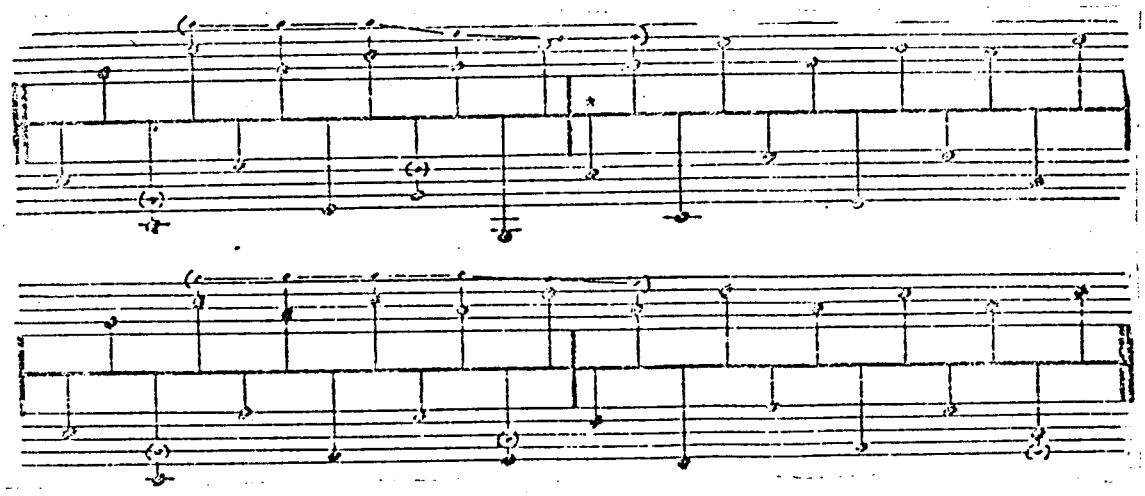
(1) A.M. Jones: "African Rhythm", Africa, Vol 2, 1954, p. 34

Fig 1(a) Typical kundi harp ostinato cycle, Azande: Central African Republic



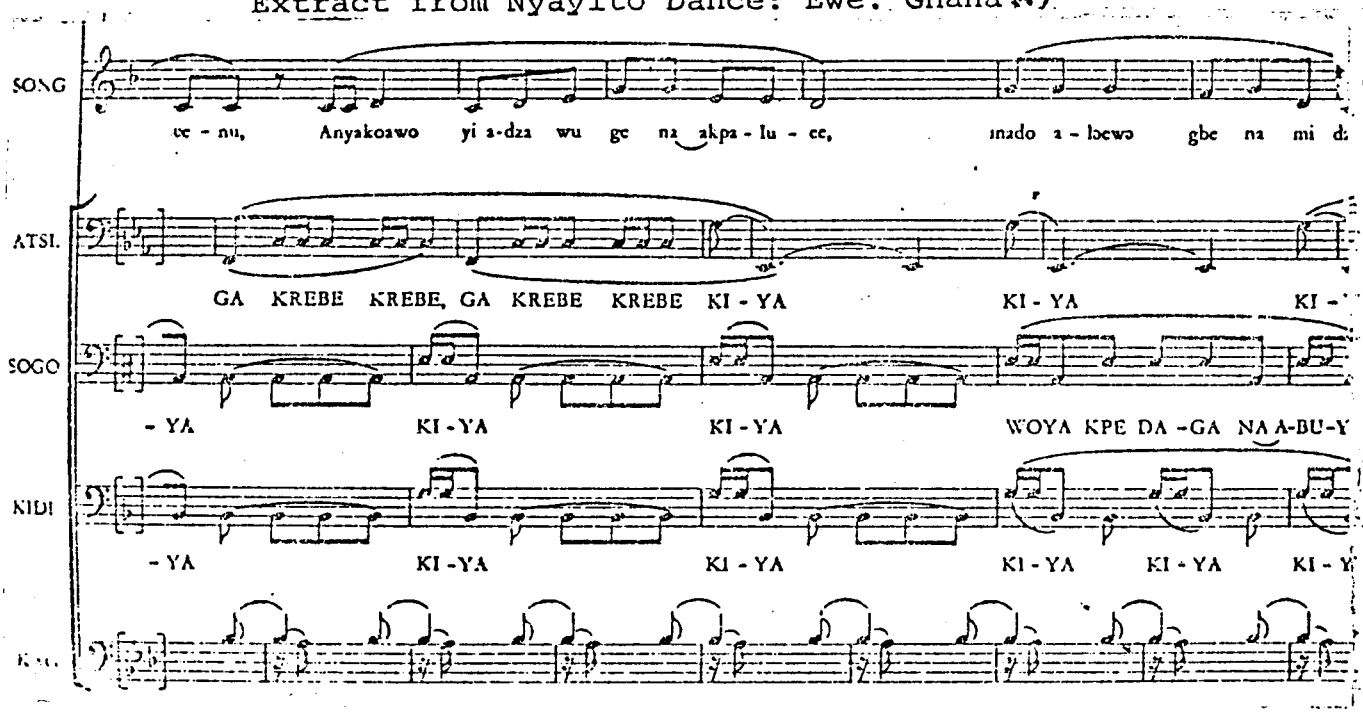
(2)

Fig 1(b) Typical mbira cycle



(3)

Fig 1(c) Typical drumming ensemble pattern, Anlo: Ghana
Extract from Nyayito Dance: Ewe: Ghana (4)

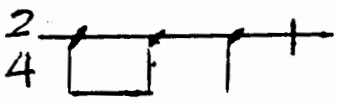


(2) G. Kubik: "Harp music of the Azande", African Music, 1964, Vol 3 No 3, p. 61
(3) A. Tracey: How to Play the Mbira dzaVadzimu, p. 19
(4) A.M.Jones: Studies in African Music, Vol II, p. 13

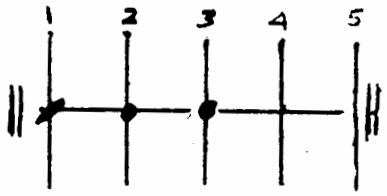
In his transcriptions of Ghanaian drumming ensembles, A. Jones uses the compound time signature, $^{1}_{8}{}^{2}$, in order to avoid the recurring stresses of a shorter time-signature, which would otherwise not represent the music accurately. (cf. Fig 1(c))

A. Tracey and others developed this idea by using vertical lines to indicate a series of equal pulses which are not grouped into stressed and unstressed pulses as found in Western notation. An example, simplistically put, is:

(a) Western notation:



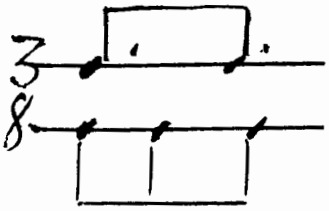
(b) Equivalent pulse-notation of (a) |↔| = ♪



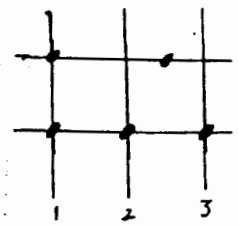
An obvious advantage of Tracey's method is that it enables one to see the exact pulse-relationship in a cross-rhythm. For example:

Fig 2:

(a) Western notation:



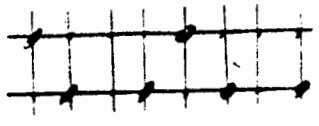
(b) Equivalent pulse-notation of (a) |↔| = ♪



(a) does not show the exact temporal relationship between  and  as in (b)

Secondly, the Westerner perceives low-sounding instruments as playing a supportive role within an ensemble, as, for example, the bass-drum in a marching troop, while the higher-sounding instruments play melodic and rhythmic embellishments above this. The African, on the other hand, regards the high instruments as playing the supportive role and the low instruments as the solo instruments. This immediately results in a difference of musical perception between the Westerner and the African. For example, when this rhythmic pattern is played without stressing any pulse, on the high and low drums:

high drum
low drum



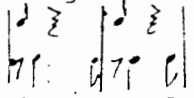
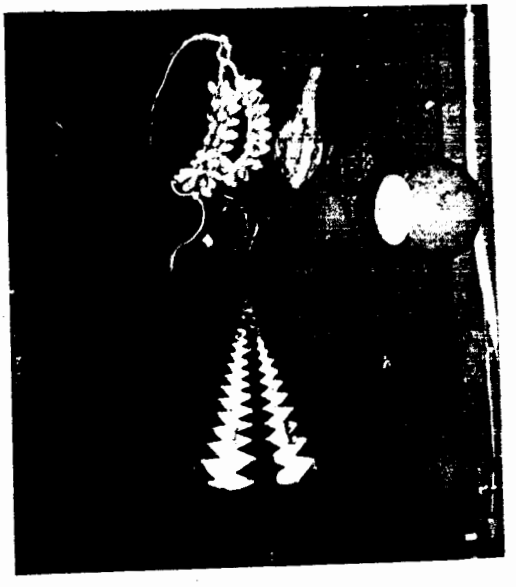
the Westerner perceives it as  i.e. the high drum having chief interest. Not so the African; he perceives it as  i.e. the low drum cutting in-between the regular beats of the high drum. (5) On-beats can be found, for example, in the use of the double bell in Ghanaian drumming ensembles, which is used as a time-keeper which keeps the whole ensemble together.

Fig 3: Double Bells. Left, Zaire, Right, Ghana (I.L.A.M. Collection)



(5) A.Tracey: personal communication

THE STRUCTURE OF AFRICAN RHYTHM

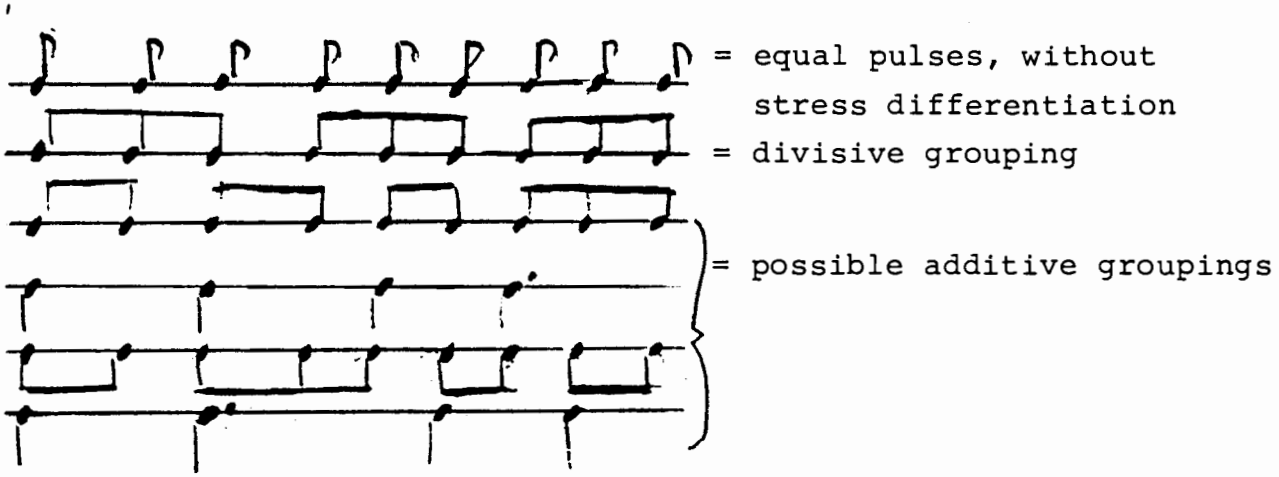
Before discussing the structure of African rhythm, a clear distinction should be made between divisive and additive rhythms.

Divisive rhythm:
The Western approach to rhythm is basically divisive, i.e. time is divided into largish units, phrases or bars, which may then be sub-divided into varying numbers of beats. Accents are placed on the first beat of each bar.

Additive rhythm:
African music is basically additive, i.e. time is considered to be a stream of very small, equal units (named 'pulses' by ethnomusicologists), which are added together to create different rhythmic groupings.

A summary of the above is:

Fig 4:



The above is merely a convenient way of looking at the basic differences between Western and African music.

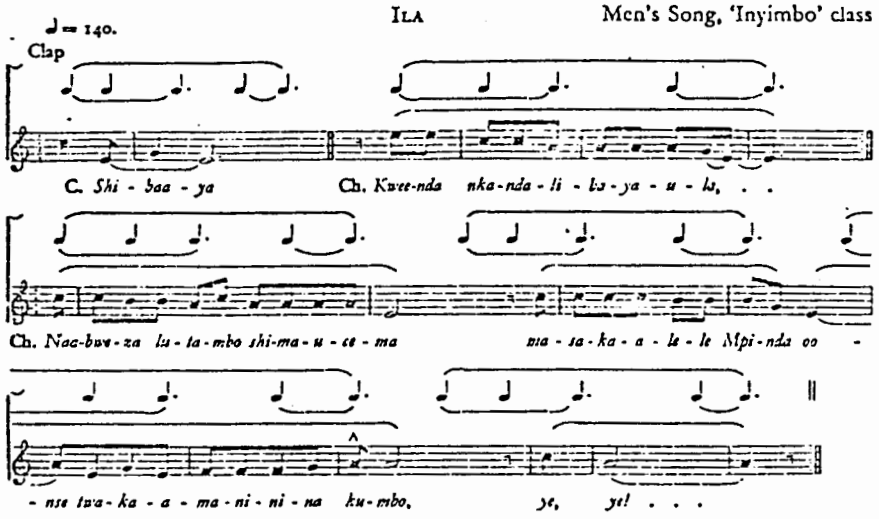
The Standard Pattern

One additive pattern which appears in so many forms and guises in Africa, that it was called the 'standard pattern' by A.M. Jones, can, in its most basic form be represented as:

The song below, sung by the Ila of Zambia is accompanied by this rhythm which is clapped.

Fig 5:

Transcribed by A.M. Jones



(6)

The claps do not follow the accents of the song.

⌐¬ = Standard pattern phrase.

In Nigeria, the standard pattern exists in a seven-beat form and the Nigerians use the speech-associations, "KON-KO-LO, KON-KON-KO-LO" as a mnemonic.

Fig 6:

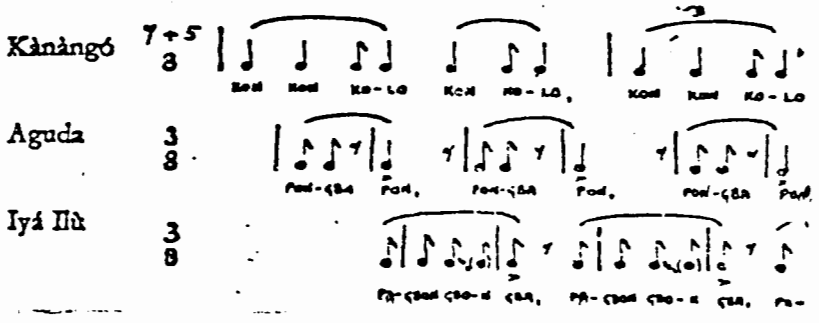
KON-KO-LO KON KON KO LO

(7)

The example in Fig 5 below is illustrative of its use in Nigerian drumming ensembles.

(6) A.M.Jones: op. cit., pp. 106 - 7
(7) A.Tracey: personal communication

Fig 7:



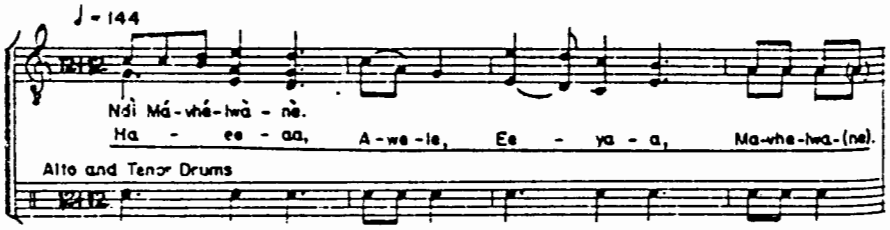
(8)

The asterisk indicates the beginning of the "KON-KO-LO" cycle. The polymetric representation of this rhythmic ensemble will be discussed under "multiple main beat" below.

In Ghana it is found as follows:

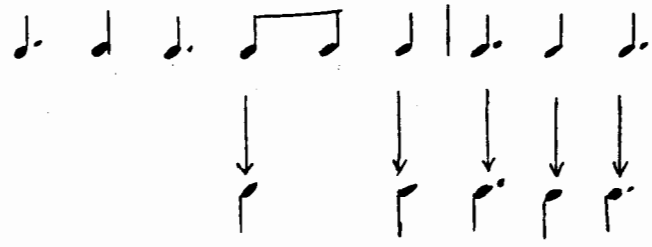
Much further south, among the Venda (9) it occurs in a variety of forms, including, for example:

Fig 8:



(10)

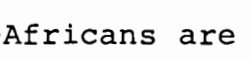
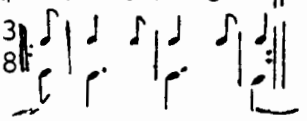
This pattern is very closely related to the most basic form of the standard pattern, being a rhythmic variant thereof and starting in a different point of the cycle, i.e.

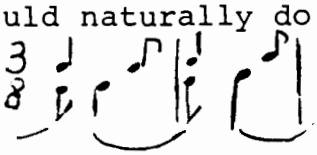


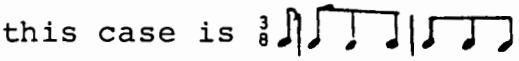
(standard pattern)

(8) A.King: "Employment of the 'Standard Pattern' in Yoruba Music", African Music, 1960, Vol 2 No 3, p. 53
(9) J.Blacking: "Tonal Organization in the Music of Two Venda Initiation Schools", Ethnomusicology, 1970, Vol 14 No 1, p. 34
(10) ibid., p. 46

THE CONCEPTS OF RHYTHMIC INTERPLAY AND MULTIPLE MAIN BEAT

When non-Africans are asked to group  with  they would instinctively group them thus:  etc.

African drummers, for instance, from Zimbabwe would never group the dotted crotchets of the second pattern with the strong beats of the first as the Westerner would naturally do. Instead, they prefer something like this:  etc.

The second pattern is, in technical terms, 'staggered' with the first and because of this, a rhythm which is quite different from the two contributors is heard as a result of their combination. This is termed the 'resultant' rhythm, which in this case is  etc.

This fact was first brought to light by A.M.Jones. (11)

The African tendency to combine rhythmic patterns in the manner described above, illustrates two important characteristics of African rhythm, namely rhythmic interplay, i.e. the interplay between two or more contrasting rhythmic patterns, and multiple main beat, a term first used by Jones to describe African rhythm (12): to describe two or more rhythmic patterns, the main beats of which do not coincide. The African uses these to establish contrast, for example, between a divisive song and additive clapping accompaniment, as in Fig 9.

Fig 9:

(13)

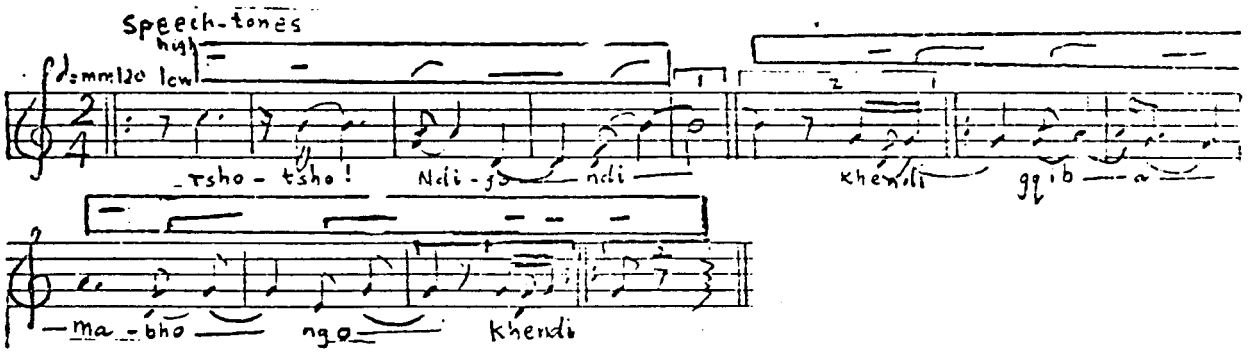
(11) A.M.Jones: "African Rhythm", Africa, 1954, Vol 24
(12) ibid., p. 49
(13) ibid., p. 34

The clap-accompaniment to this song is the basic form of the standard pattern.

How the African Obtains Rhythmic Interplay:

The African has invented various methods of establishing rhythmic interplay, for example,
(i) by shifting rhythmic accents. This plays an important part in Nguni vocal music.

Fig 10 Xhosa dance song Transcribed by D. Rycroft



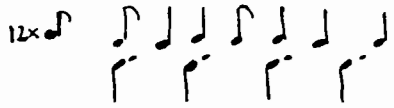
(14)

(ii) by the interplay established between different rhythmic patterns,
for example:

(14) D.Rycroft: "Dark Music", Manchester Memoirs, 1962-3, Vol 115 No 3, p. 14

Fig 11 is another example:

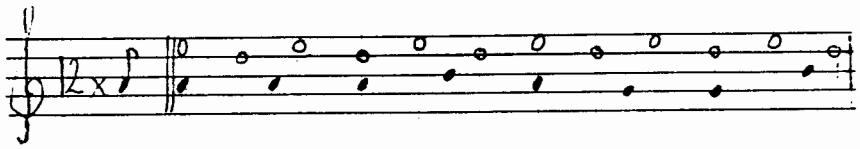
Fig 11:



The first pattern is a variant of the standard pattern, while the last two dotted crotchets of the second pattern forms a three-against-two relationship with the last three crotchets of the first.

The three-against-two cross-rhythm features prominently in the kundi harp accompaniment pattern of the Azande of Zaire.

Fig 12(a):

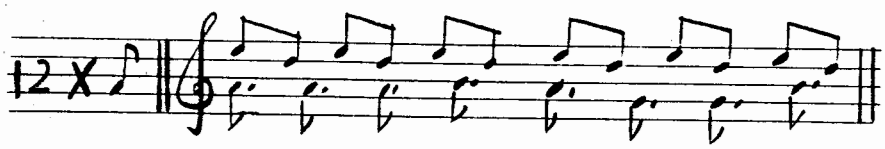


(15)

o = forefinger melody
• = thumb melody

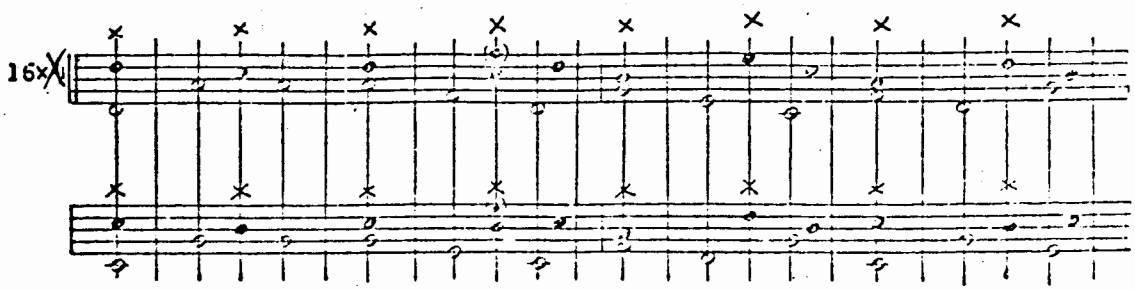
right hand (or left hand, depending on the choice of the player)

Fig 12 (b): In Western notation it is



This rhythm also features in the Chopi Mbila xylophone music (Moçambique):

Fig 13 (a): Mzeno of Melekwane from Nyakutowo • = R o = L X = rattle



(16)

(15) A.Tracey: personal communication
(16) H.Walker: "African Instruments and Music, Part II", The Orff Beat, 1976, Vol 5 No 4, p. 18

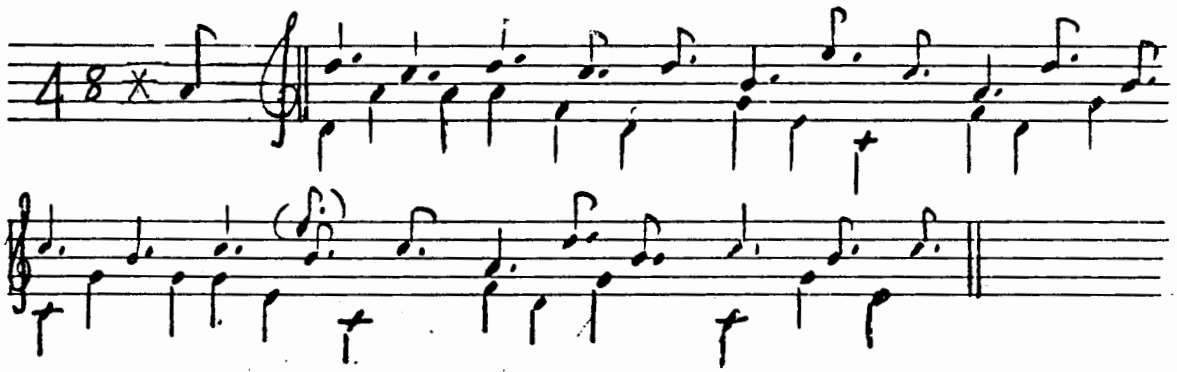
• = right hand

O = left hand

X = rattle

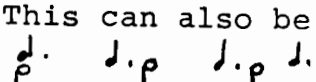
The 3-against-2 features in the first twelve pulse-divisions.

Fig 13(b): In Western notation it is



The 4-against-3 cross-rhythm, like the 2-against-3, is not unusual in Africa. Unlike the Western 4-against-3, where four pulses are squeezed into the time of three, the African expression of it is as follows:

i.e., one part groups the pulses into 3's and another groups them in 4's. This can also be expressed as:

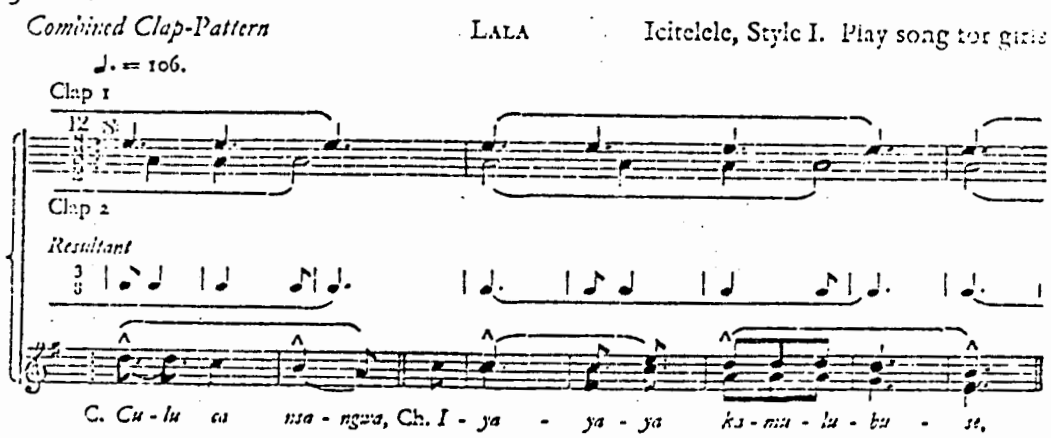


with the intervening pulses left out.

(For a discussion of its resultant, see below).

A.M.Jones quotes the following example. (17) The compound clapping accompaniment, i.e. a clapping accompaniment using more than one rhythm, is 4-against-3.

Fig 14:

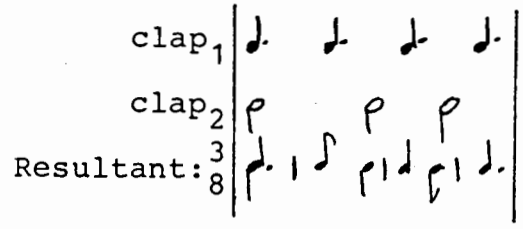


Jones observes that the 4-against-3 can give two resultants according as we give a mental predominance to the 4-clap or the 3-clap.

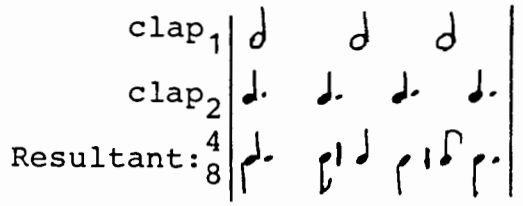
They are:

Fig 15:

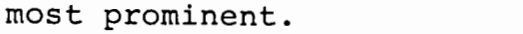
(a)



(b)



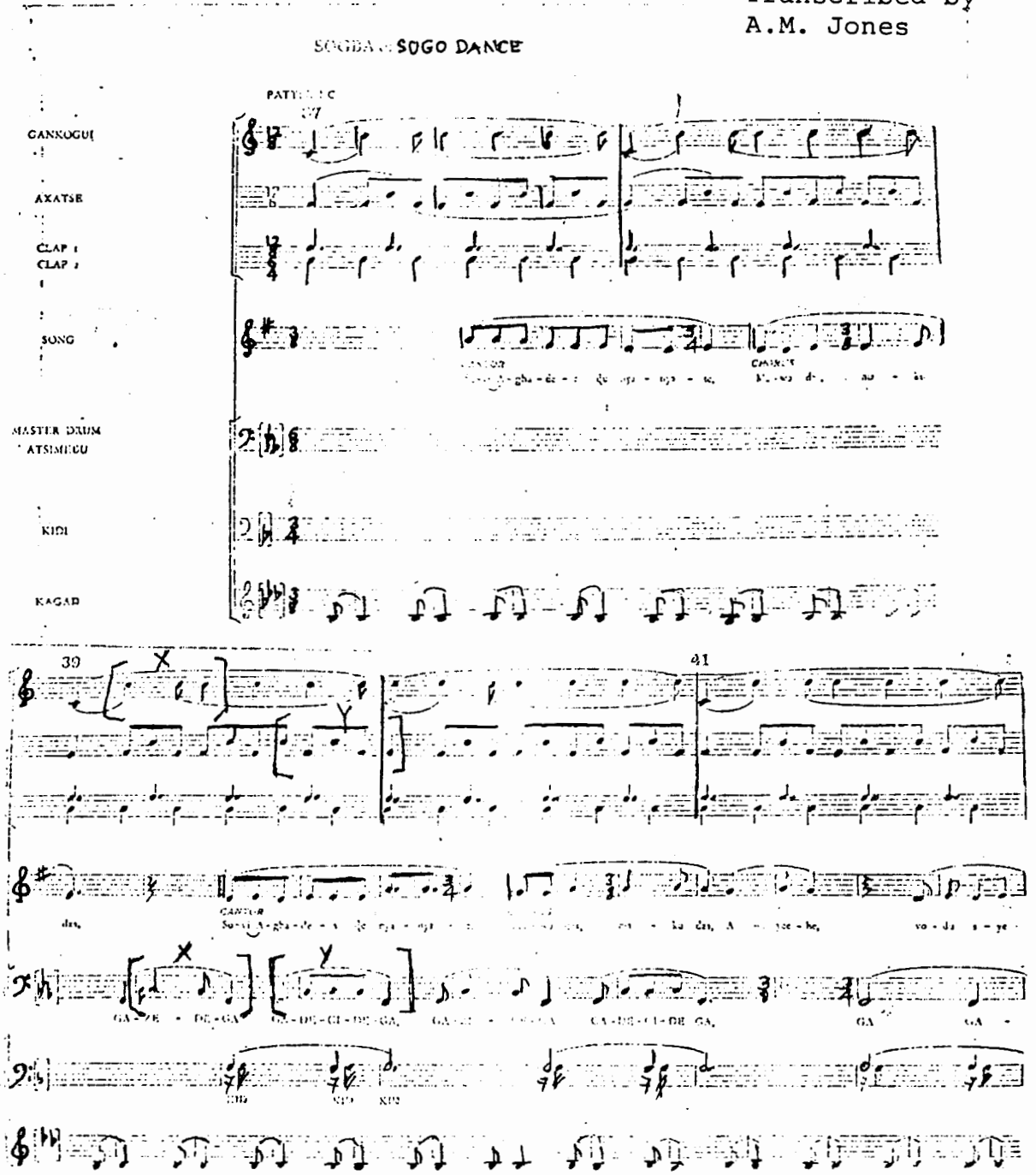
(18)

The up-stems of the resultant (in Fig 18) denote $clap_1$; the down-stems of the resultant denote $clap_2$. Although (a) and (b) both refer to the same rhythms, the resultants are quite different according as we hear whether  or is the most prominent.

The rhythmic elements discussed above feature prominently in the drumming ensembles. The example below, a transcription into staff-notation by A.M.Jones of a dance of the Ewe tribe of Ghana, is no exception: P.T.O.

(18) ibid.

Fig 16: (Analysis of Sogo Dance - Ghana) Transcribed by A.M. Jones



(19)

(19) A.M.Jones: Studies in African Music, Vol 2, pp. 106 - 7

The gankogui and axatse bells play rhythmic ostinati which are metronomic in accuracy. The other entries occur in this order: first the clap and the kagau drum, which enter along with the bells; then the cantor, to be followed by a chorus; then the atsimevu, or master drum, which plays interlocking patterns with the rest of the ensemble, then the kidi accompaniment. Jones uses "key-signatures" in order to notate the relative pitches of each drum, which is carefully tuned by the musicians before performance.

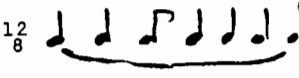
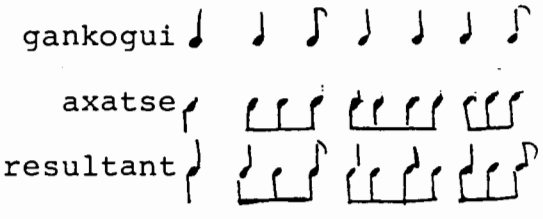
The $\frac{12}{8}$  played by the gankogui is a variant of the standard pattern. The axatse plays an interlocking, basically quaver pattern against it, producing the following resultant:

Fig 17:



(The up-stems indicate the gankogui pattern, while the down-stems indicate the axatse pattern.)

The bell plays a metronomically accurate pattern, which the master drummer uses as a guide, or time-keeper, into which to fit his improvizations. If the bell-players (the higher pitch) are out of time, it throws out the whole ensemble, proving that the bell-rhythms form the basis for timing. H. Pantaleoni reported an Anlo (Ghana) musician as saying: "You must always fit in with the bell." R. Waterman in 1952 termed this as the "metronomic sense" of the African (20)

The kagan is crossed with bell$_1$, the gankogui and, to add more interest to the ensemble, the clappers clap the well-known 3-against-2 cross-rhythm.

The cantor enters shortly after the establishment of this

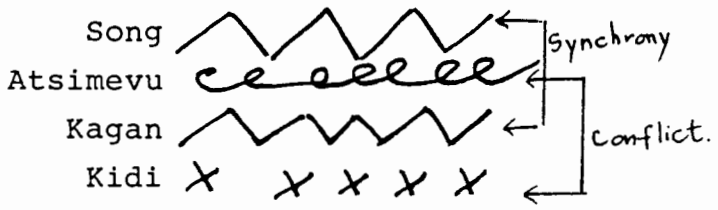
(20) H.Pantaleoni: "Three Principles of Timing in Anlo Dance Drumming", Ethnomusicology, 1972, Vol 16, p. 58

complex ostinato, which is linked more closely with the $clap_1$ grouping than with the $clap_2$ grouping because it is in $\frac{3}{8}$. The chorus, which is sung in unison completes the antiphonal vocal ensemble.

The atsimevu enters almost immediately after the last note of the chorus, employing material used first in the gankogui part, then in the axatse part. (See X and Y respectively in Fig 24.) The words "GA - ZE - DE - GA", etc., are speech-associations used an mnemonics by the performer. The metre of this drum is staggered with the metre of the song, the metre of which, in turn, is synchronous with the kidi, which is the last drum to enter into the ensemble.

The sketch which follows is an attempt to summarize the relationship between the song and the drumming ensemble.

Fig 18:



This conflict of interest within the instruments of the ensemble is a noteworthy aspect of African rhythm and it is this aspect which brings about a uniqueness which, so far, still remains an experience with which only the African is familiar, and the Western dilettanti.

THE HOCKET TECHNIQUE

A rhythmic technique, used by reed-pipe ensembles all the way from South Africa to the Nile, is the hocket technique, whereby each pipe is played at a specific moment in the ensemble, not unlike the technique used by bell-ringers. (For information of pipe-ensembles refer to Chapter Four.)

Ballantine lists a number of these in his paper, "The Polyrhythmic Foundation of the Tswana Melody", including, for example:

Fig 19(a):

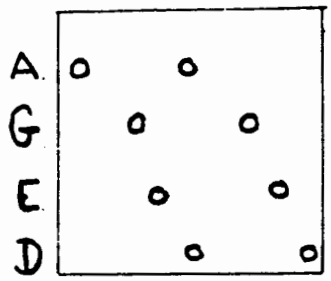
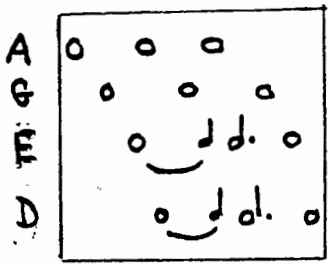


Fig 19(b):

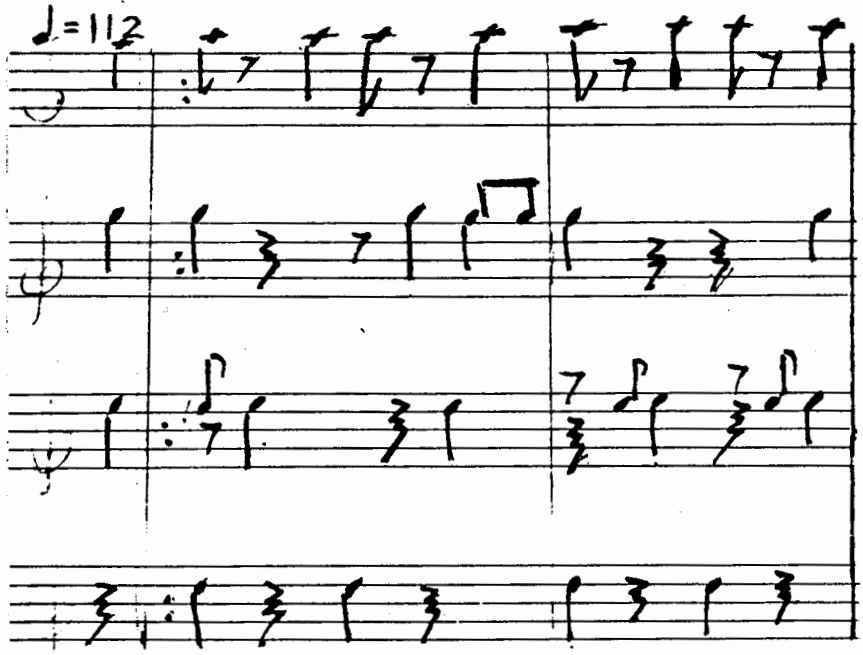


(21)

The letters A G E D represent the pitches of each pipe.

Here is an extract of one of the examples which Ballantine supplies:

Fig 20: From Motseo: A Tswana pipe ensemble. Transcribed by C. Ballantine



Pipers never stand still when they play. Of this aspect, Kirby says:

> ... were the reed-players to remain stationary throughout their performance, the repetitions of the tune would all sound exactly alike; but

(21) C.Ballantine: "The Polyrhythmic Foundation of a Tswana Pipe Melody", African Music, 1965, Vol 3 No 4, p. 56

> since they dance round in a circle, the ear of the listener is deluded, and hears melodic (and harmonic) sequences of sounds that are apparently varied. (22)

THE RHYTHMIC SENSE OF THE AFRICAN

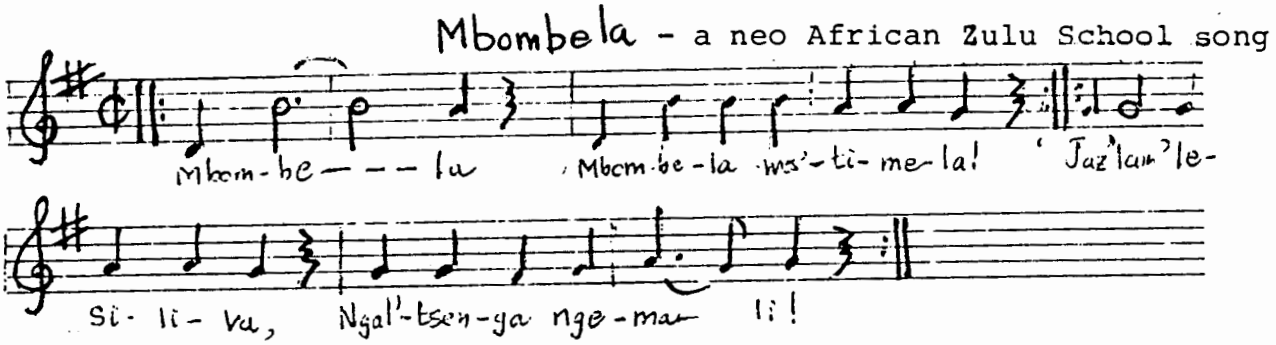
If an African rural musician should be asked about the technical concepts discussed earlier, he probably wouldn't know what is being referred to, because he does not perceive it in this way. Rhythm becomes part of his way of life almost from the day he is born. Very often the rocking movements of the mother are crossed with the metre of the song she is singing. Of Ghanaian cradle songs, Nketia says the following:

> The African mother sings to her child and introduces him to many aspects of his music right from the cradle. She trains the child to become aware of rhythm and movement by rocking him to music and by singing to him in nonsense syllable imitative of drum rhythms. When he is old enough to sing, he sings with his mother and learns to imitate drum rhythms by rote, as soon as he can control his arms, he is allowed to tap rhythms, possibly on a toy drum. Participation in children's games and stories incorporating songs enables him to learn to sing in the style of his culture, just as he learns to speak its language. (23)

Zulu children sing the song, "Mbombela", when participating in a stone-passing game, in which stones are passed from one child to the next on particular pulses of each measure of the song. Activities of this kind, in the author's opinion, certainly contribute in no small measure towards his overall musical development.

(22) P.Kirby: op. cit., p. 159
(23) J.H.K.Nketia: The Music of Africa, p. 60

Fig 21:



(24)

When manual work is done by a group, the members sing together, very often in a cyclic call-and-response pattern, a favourite formal device of the African, and collectively execute physical activities at given points in the song. In situations like this, rhythmic accuracy of each individual becomes a necessity to ensure efficient functioning of the group as a whole.

Philip Gbeho, in 1952, very informatively conveyed the importance of rhythm in a collective work-situation by the following account:

> Fufu is a common food of the Gold Coast. It is made out of yam, cassava, plantain or cocoa jam, and its preparation places the cook's hand at considerable hazard. The yam, or any of the above ingredients, is first boiled and put into the fufu mortar to be pounded. One woman uses a heavy stick in pounding it and another turns it at the same time to get it well-pounded and free from lumps. The women work according to a strict rhythm, the first bringing down the fufu stick on the food on the first beat of the bar and the woman turning it on the mortar on the second beat. The rhythm must be steady to avoid disaster. A good sense of rhythm is a good precaution against accident. It is easier when only two women are involved; they choose two beats in the bar and work accordingly, but sometimes there are as many as four women at work, three of them doing the beating and the other turning the fufu. The usual procedure here is to have three beats in the bar, with the woman who is turning the fufu picking up

(24) B. Mthethwa: paper presented at Ethnomusicology Symposium, Grahamstown, 1980

> on the second half of every beat. Failure on her part to pick up on the proper beat carries a dire penalty: crushed fingers. (25)

Because rhythm plays an integral part in the way of life of most African societies, rhythmic development takes place more naturally and more rapidly than in Western cultures. This is probably the reason why African cultures enjoy a rhythmic sensitivity hitherto not yet shared by the West, because Western music seems to be moving further and further away from a social experience.

Finally, when Africans combine two or more clap patterns, they are aware of each component part in the ensemble and can appreciate any of these elements against each other.

(25) P.Gbeho: "Cross Rhythms in African Music", West African Review, January 1952, Vol 23 No 292, p. 11

Chapter Four

A Survey of Some African Instrumental Resources

4.1 INTRODUCTION

The variety of musical instruments to be found in Africa has been and continues to be a constant source of attraction to the West. Musical gadgetry, for example amplifiers, is almost unknown in Africa so that musicianship in its purest form, even to the point where the musician is the craftsman of his own instrument, abounds here.

In many instances, the craft of instrument-making reaches a high degree of refinement. Of this Hugh Tracey says:

> From the simplest reed-pipe or one-string musical bow upwards the African has followed empirically without knowing, the universal science of instrument making without relying upon outside instructors for their craft. European influence has not yet improved a single African instrument in range or tone with a few modest exceptions, beyond those achieved by the original craftsmen. (1)

African musicians have developed a high degree of sensitivity towards instrumental sound and timbre, as a result of making their own instruments. Such people as the Chopi, when they leave their homes to work on the mines, do not normally take their xylophones with them; they make them on the mines and with nothing more than the memory, or 'perfect pitch', they tune them to within one vibration per second of those at home.

The African uses material from his environment to craft musical instruments, often very ingeniously. F. Bebey says that the absence of machinery rules out industrial manufacture and the craft of instrument making is a much more individual endeavour than it is among Western craftsmen. (2)

It could not have taken the herd boy long to realize that he

(1) H.Tracey.: "African Instruments and their Construction: a description of instrument making and, in particular, the Chopi Xylophone", lecture, College of Music, University of Cape Town, August 1963.

(2) F.Bebey: African Music: A People's Art, p. 40

can make a flute from a bamboo shoot, nor could it have taken the Hottentot long to realize that his hunting bow string when struck, emits a rather pleasant sound. The earliest reference to the Hottentot reed-flute ensemble occurs in the journal of Vasco da Gama, when he reached Cape St Blaise, near Mossel Bay, in 1497: "... and they started playing four to five flutes, some high, some low, so that they sounded together marvellously well for negroes, from whom one hardly expects any music, and they danced in the manner of negroes." (3)

A feature common to many African musical instruments is a buzzy edge-tone, occurring with the note when it is played. This feature, much loved by the African and equally resented by the Westerner, who would rather spend much time and effort to remove it, can be found on such instruments as the Chopi xylophone, and the Zezuru (Zimbabwe) mbira dzaVadzimu, to name some examples. Mbira players traditionally attached shells on to their instruments to obtain a buzz but, more recently, cooldrink bottle tops were found to be equally effective and less fragile.

Instrumental Classification

The author has chosen to use the terminology of instrumental classification based on the way the air is set into vibration. It was first used by Curt Sachs in his History of Musical Instruments. According to this terminology, there are four distinct categories of instrumental types:

Chordophones (Stringed Instruments): Chordophones are instruments with strings, which may be struck with sticks, plucked with the bare fingers or a plectrum, bowed or (in the aeolian harp for instance) sounded by wind. Stringed instruments can be reduced to four fundamental types: zithers, lutes, lyres and harps.

Aerophones (Wind Instruments): Aerophones, or 'air instruments', include what are usually called 'wind instruments' with the

(3) A.Morelet: Journal du Voyage de Vasco da Gama, Lyons, 1864, p. 9 (Quoted by P.R.Kirby: "The Reed Flute Ensembles of South Africa: A Study of S.A. Native Music", Journal of the Royal Anthropological Institute, Vol 63, July - December 1933, p. 22.

addition of a few instruments with a different acoustical principle called 'free aerophones'.

Idiophones (Percussion Instruments with the Exception of Drums): These instruments are made of naturally sonorous material not needing any additional tension as do strings or drumskins. In this class it is the player's action that has shaped the instruments, because they have originated from extensions of striking or clapping hands or stamping feet. Accordingly, the basic question is how they are set into vibration.

Idiophones can be struck, shaken or plucked.

Membranophones (Drum-types): The sound of the membranophone is produced by a membrane, usually animal hide, stretched over an opening.

The above descriptions are given by Hugh Tracey in Catalogue of the "Sound of Africa" Series, I.L.A.M., 1973.

While trying to provide some idea of the scope and extent of African instruments, the author has also found it necessary to narrow his choice for discussion according to the following considerations:

availability of sources, both discographic and bibliographic;

instruments being particularly representative of each of the above categories;

South African instruments being chosen where possible, instead of similar instrumental types in other countries, as the present dissertation concentrates on African music in South Africa.

4.2 CHORDOPHONES

Musical Bow

Bow-playing, also found almost everywhere in Africa, e.g. in Zimbabwe, is an important feature of African music in South Africa, especially among the Nguni peoples, i.e. Zulu, Xhosa and Swazi. It is also found among such South African peoples as the Tswana and the Pedi. The whole tonal system of traditional Nguni music is based on the principle of bow-playing. This will be discussed below.

The Bushman and Hottentot Use of the Bow

Bow-playing in South Africa finds its origins among the Hottentots and the Bushmen in their use of such instruments as the !gabus and the gora. Kirby could not find any efficient performer on the gora in 1931 (4) so that it is hardly likely that one will come across a competent gora player nowadays. This instrument consists a straight shaft of wood about one metre long and two centimetres in diameter; the string is secured to a quill (for example, an ostrich quill) the broad end of which is trimmed into a leaf shape. The other end of the quill is fixed into the stick. The quill is placed between the lips of the performer who agitates it by breathing in and out through the mouth. The mouth and throat act as a resonator.

(4) P.R. Kirby: "The Gora and its Bantu Successors: A Study in South African Native Music", Bantu Studies, Vol 5, No 2, 1963.

Fig 1: Playing technique of the gora

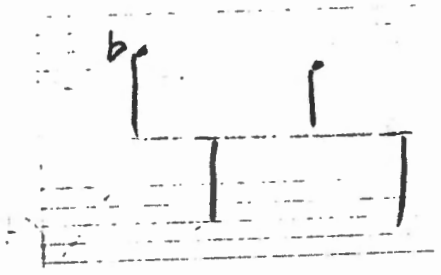
The notes sounded are the fundamental and a portion of the harmonic series, a discussion of which follows later.

Bow-playing started amongst the Nguni when the Korana Hottentots trekked northwards to the Vaal, came into contact with the Tswana, who adopted the gora directly from them, calling it the 'lesiba'. The Sotho, being very close to the Tswana, adopted it from them, also calling it the 'lesiba' and believing that the sound gave cattle a good appetite. (5)

According to Kirby, when the gora player breathes in, the fourth partial is very prominent, although the lower ones, and even the fundamental itself, can at times be faintly heard. When the player exhales, he accompanies the low notes by a guttural grunt of indefinite pitch, represented in Fig 2 below as C.

(5) idem.: The Musical Instruments of the Native Races of S.A., p. 18

Fig 2: The notes do not conform with equal-temparement tuning but with the natural harmonics of a stretched string, which are mostly slightly flatter than the equal-temperament system.



(a) Sounds brought about by inhalation. Lower sounds of the same harmonic series can also be heard.

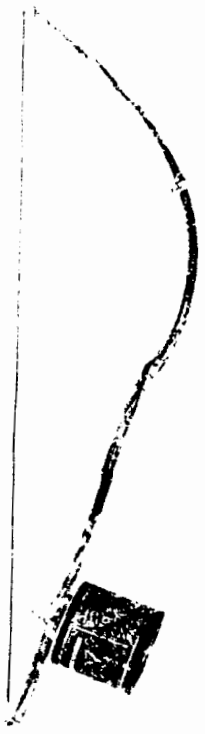
(b) Grunts of indefinite pitch produced by exhalation. (6)

The Xhosa and Zulu Bows

There are two main bow-types amongst the Nguni, viz.: the open string type, for example the Xhosa uhadi and the Zulu ugubhu, and the braced string type, where the string is divided by a loop of wire, for example, the Zulu umakhweyana. The bow is held vertically and the string is struck by a stick, reed or piece of grass. The resonator is the calabash, which is held near the chest of the player. (See, for example, Figure 3 below.)

(6) ibid., p. 190

Fig 3: The Uhadi (Xhosa)



6

Construction of the Uhadi: The wooden shaft is about one metre long and the string is nowadays usually a piece of wire. It was traditionally a piece of twisted ox sinew or horse hair. The resonator is often a medium sized calabash, cut open across the thick end, but nowadays tins are sometimes used. This is insulated from the wood by a cloth or a piece of foam rubber.*

Playing Technique

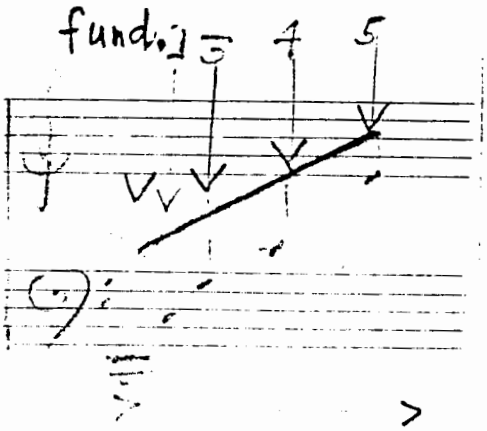
Open String: When the open string is struck the fundamental is heard, together with the partials which are obtained as follows: As the gourd is distanced from the player's chest, the higher partials become audible. Therefore, when one

*The uhadi is normally played by the female members of the community.

strikes the fundamental with the resonator at the distance X away from the chest, the fundamental together with the third partial becomes audible; at the distance Y, a little further away from the chest, the fundamental with the third and fourth partials becomes audible, and so on. One can obtain up to the fifth partial by selecting the harmonics in this manner. Uhadi players know this and select harmonics as desired through this method. As these are quite soft, the listener has to stand fairly close by to hear them.

Figure 4 below represents the fundamental together with the first, third, fourth and fifth partials. The pitch is arbitrary because of the following considerations: The player adjusts the string tension to suit his/her vocal range; the string is tuned to the same pitch as the natural resonant pitch of the calabash; the string is tuned according to the partials the player wishes to have prominence.

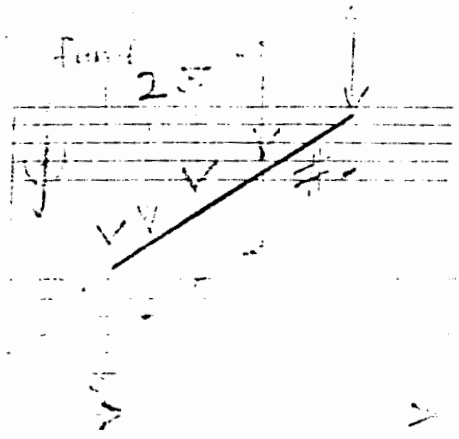
Fig 4:



Stopped String: The string is stopped by the fingers, as illustrated in Figure 5 below, to sound the stopped fundamental lying approximately one whole-tone above the open fundamental. H. Tracey cites the differences of 177 and 190 cents between the open and stopped fundamentals for the two items recorded on AMA.TR.62.

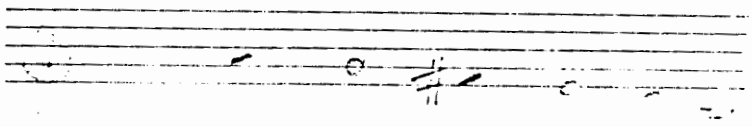
The third, fourth and fifth partials are also obtained in the same way as mentioned above. (cf., Figure 4)

Fig 5:



When the notes of both of these are put together in descending order, the following scale is the result:

Fig 6: This is a six-note, hence hexatonic, scale.



o represents the partials of the open string, while • represents the partials of the stopped string.

Rycroft calls these two fundamentals the "harmonic roots" and the progression from the one root to the other the "root progressions". Bow-songs with two harmonic roots are therefore "bi-radical" while bow-songs with three are "tri-radical" (7) This terminology will be used when discussing bow music. (See also Chapter 5.)

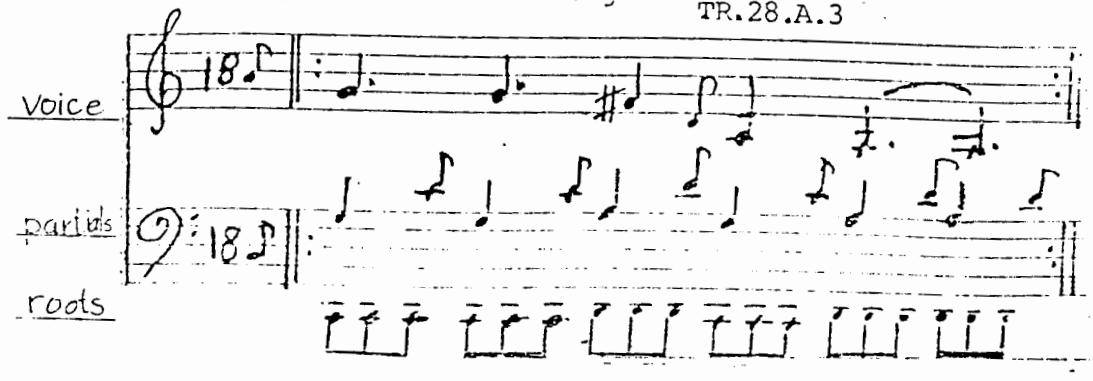
The lower fundamental is usually the tonic but there are many examples of bow-songs where the upper fundamental is the tonic.

In Figure 7(a) below, an extract from "Ukutiwa zezilo", the lower fundamental is the principal root, while the upper fundamental is the subsidiary root, according to Rycroft's terminology. The line (⁀) in bar 2 indicates a glide. The partials are selectively resonated and are clearly audible on the recording.

(7) D.Rycroft: "Nguni Vocal Polyphony", Journal of the International Folk Music Council, No 19, 1967.

Fig 7(a): Extract from Ukutyiwa zenzilo: A Xhosa self-delectative song

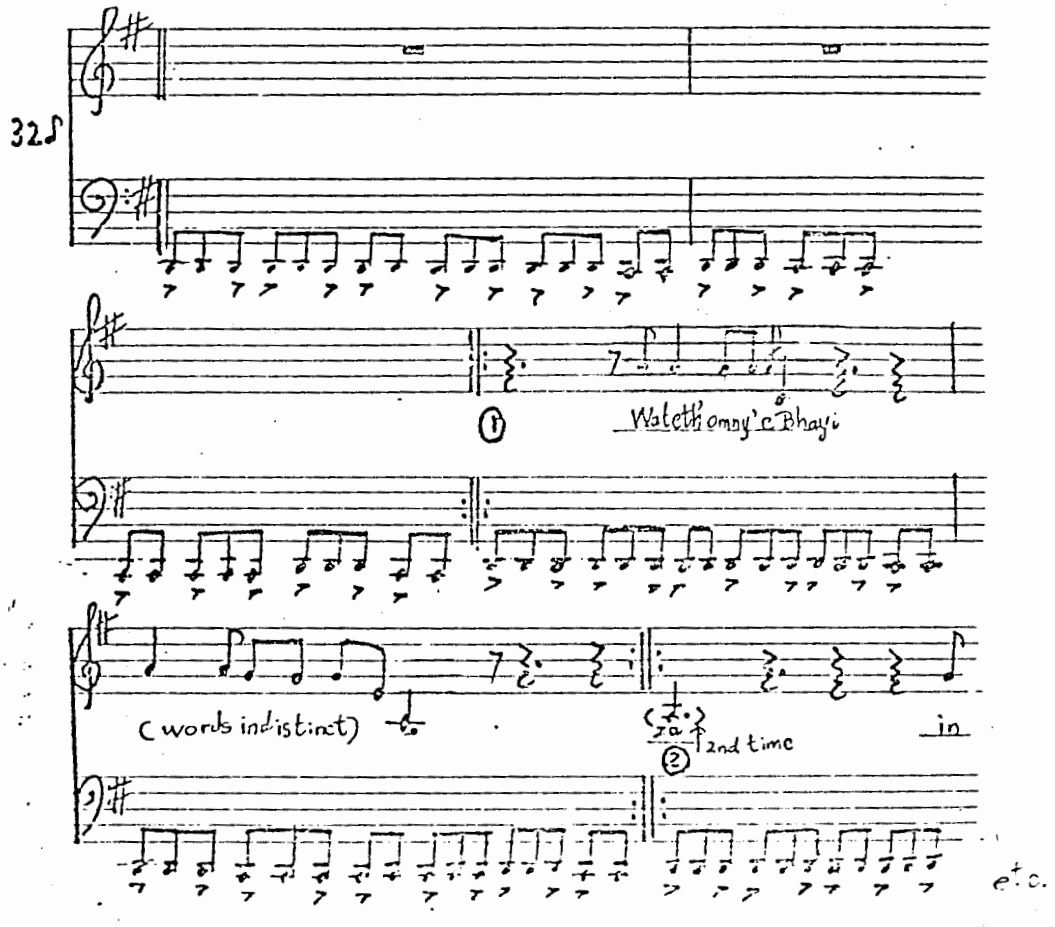
Transcribed by the author from the "Sound of Africa" series TR.28.A.3



In Figure 7(b), an extract from "Inkulu" (see footnote 8), the upper fundamental is the principal root, while the lower fundamental is the subsidiary root. The partials are more audible on the accented notes.

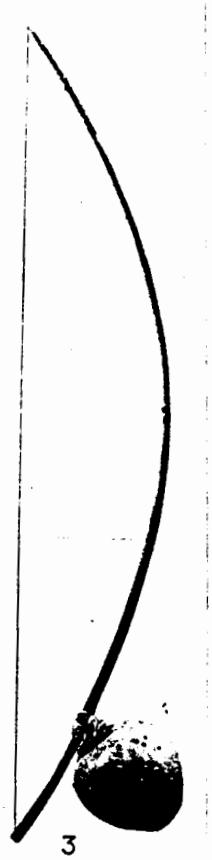
Fig 7(b): Extract from Inkulu: A Xhosa self-delectative song

Transcribed by the author from the "Sound of Africa" series TR.13.B.1



The Ugubhu

Fig 8:



The ugubhu is particularly rarely played, the only known player nowadays being Princess C. Magogo. Rycroft says that Zulus of the present generation are on the whole no longer interested in her kind of music, though they may join in with ceremonial choral songs on important occasions. (8)

Construction of the Ugubhu: The length of the stave is between 1,5 and 2 metres. Any type of wood appears to be suitable, but the best type, according to Princess Magogo, appears to be acacia ataxacantha. (9) Rycroft describes the construction as follows:

> There is a shallow V-notch cut into each end of the stave, through which the string passes. At the

(8) D. Rycroft: "The Zulu Bow Songs of Princess Magogo", African Music, Vol 5 No 4, 1975/6, p. 58
(9) ibid., p. 59

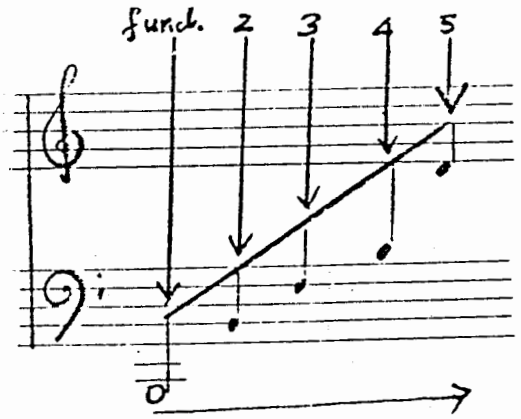
> bottom, the string is thereafter tied round a groove, encircling the stave, about 2 cm from the end. At the top, the string is coiled downwards along the stave in a widely gapped spiral for about 40 cm, and then tied to the stave. To tune the instrument, tension is varied by easing this coil further up or down the stave. (10)

The calabash resonator is attached near the bottom of the stave.

Playing technique: The playing technique is similar to the uhadi and the open-string fundamental sounds a note anywhere from A' to C below the bass clef. Rycroft believes that the player adjusts the string tension until the required partials can be resonated by the calabash and that it is not a matter of choosing pitches which are convenient for the voice. (11) The open fundamental is so low at times that one can get the misleading impression that the second partial is the open fundamental.

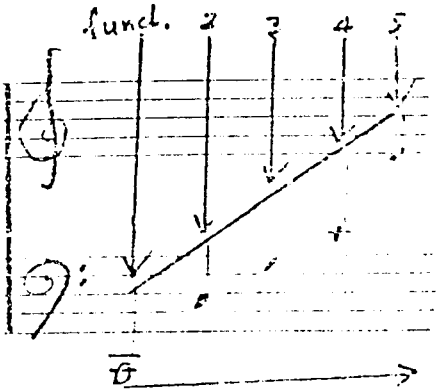
The second fundamental is also obtained through stopping the string, but the Zulus choose the approximate interval distance of a semitone between the open and stopped fundamentals, unlike the Xhosa, who choose the whole-tone.

Fig 9(a): Open string
(The vertical arrows indicate the partials and the horizontal arrow represents the increasing distance away from the player's chest.)



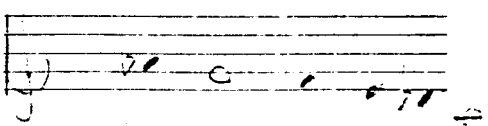
(10) ibid., p. 59
(11) ibid., p. 60

Fig 9(b): Stopped string:



The scale descending from the highest to the lowest note is merely an approximation because there are individual differences concerning the interval distance between the open and stopped notes:

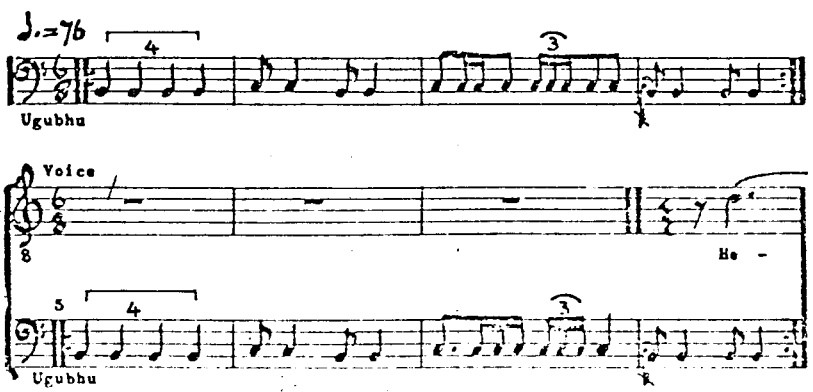
Fig 10:



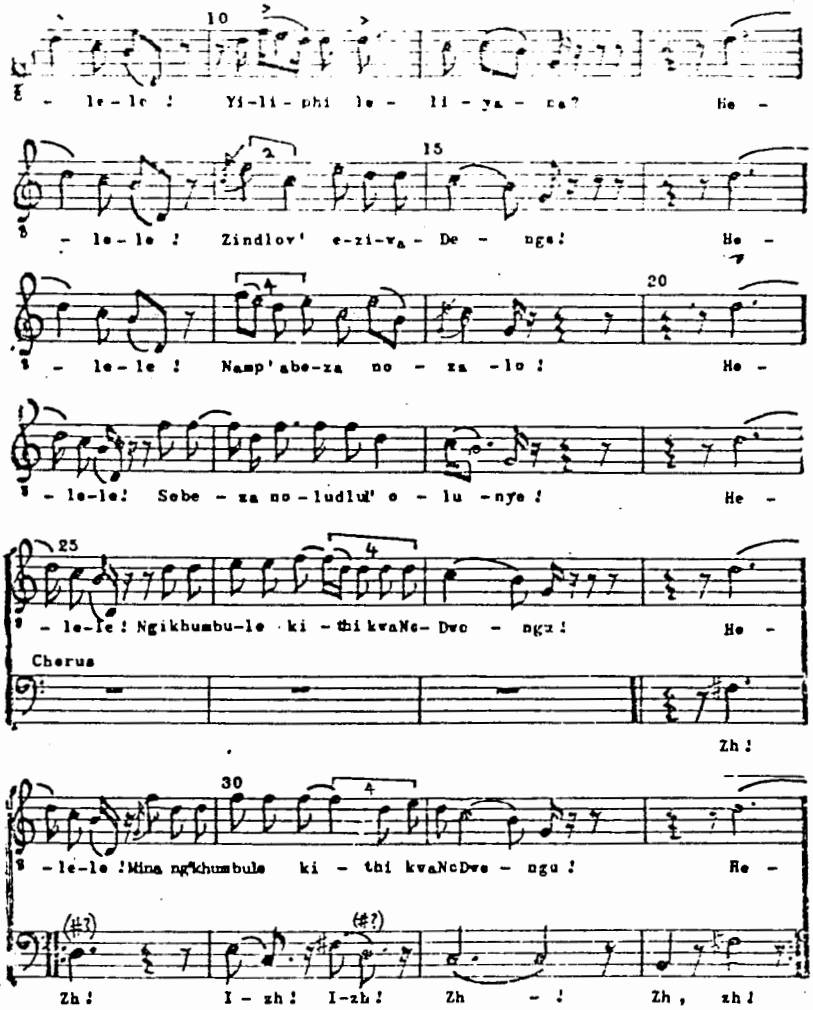
This is also a hexatonic scale. It has three semitones. o represents the partials of the open string while • represents the partials of the stopped string.

Fig 11:

Helele! Yiliphi leliyana? Transcribed by D. Rycroft (12)
Zulu bow song.



(12) ibid., p. 77


10
- le - le ! Yi-li - phi le - li - ya - na? He -
15
- le - le ! Zindlov' e-zi-wa - De - ngs! He -
20
- le - le ! Namp'abe-za no - za - lo ! He -
- le-le! Sebe - za no - ludlul' o - lu - nye ! He -
25
- le-le ! Ngikhumbu-le ki - thi kwaNc- Dwe - ngu ! He -
Cherus
Zh !
30
- le-le ! Mina ngikhumbula ki - thi kwaNcDwe - ngu ! He -
Zh ! I - zh ! I-zh ! Zh - ! Zh , zh !

The Umakhweyana

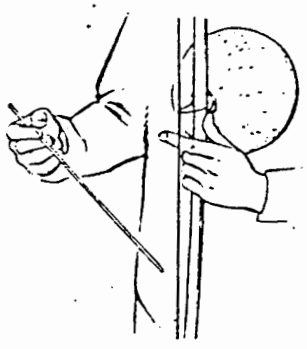
Fig 12: Playing technique of the umakhweyana

Construction of the umakhweyana: This instrument is similar in most respects to the uhadi and the ugubhu, except that its string is divided in two by a loop of wire which pulls it nearer to the stave somewhere near the middle. The ends of the wire loop projecting from the stave are fixed to the resonator, anchoring it. The central position of the resonator is another distinguishing characteristic of this instrument. According to Kirby, it was borrowed from the Tsonga of

Moçambique who call it the unkoka. (13) Similar instruments can also be found in Tanzania, Malawi, Kenya, Zaire, Burundi and Uganda. (14) There is no record of its use among the Xhosa.

Playing technique: The loop of wire divides the string slightly unequally, resulting in one low fundamental (the longer section) and one slightly higher fundamental (the shorter section). The interval distance between the two fundamentals can be adjusted through adjusting the wire loop along the length of the string. This instrument can also be made to sound a third fundamental when the player stops the string as indicated in Figure 13.

Fig 13:



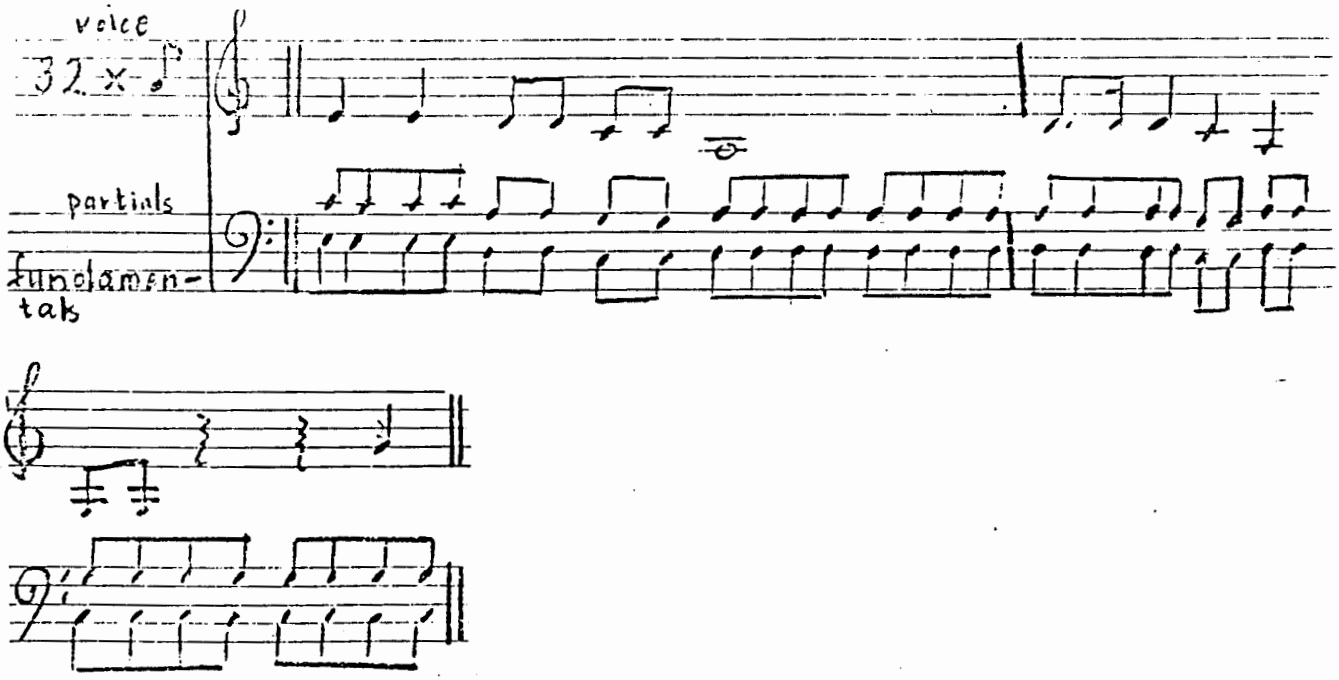
The umakhweyana enjoys more widespread popularity than the ugubhu because it is easier to obtain the stopped fundamental as the wire loop dividing the string acts as a substitute for a finger-stop.

(13) P.R.Kirby: The Musical Instruments of the Native Races of South Africa, p. 205
(14) D.Rycroft: op. cit., p. 58

Fig 14: An example of an umakhweyana bow-song

Extract from Bloemfontein Love Song - Zululand

Transcribed by the author from the "Sound of Africa" series TR 10.A.4.



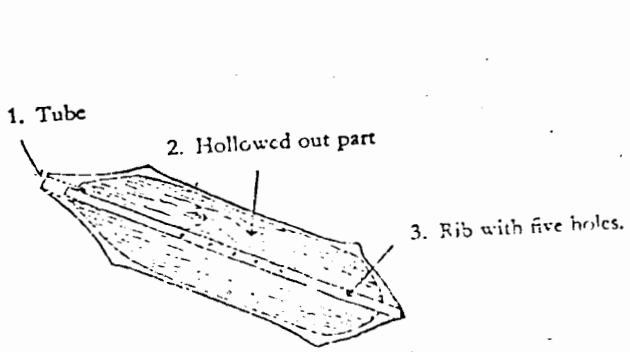
The Kundi

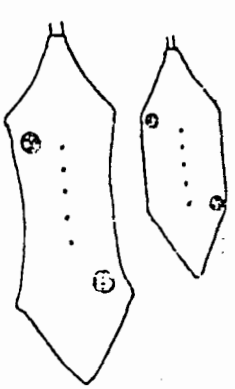
The last instrument in this category chosen for discussion is the harp from the Central African Republic, known as the kundi. It is played by the Azande people who usually use it to accompany their walking. Gerhard Kubik did extensive field research on Azande harp music and the source of much of the information quoted hereunder is from his article "The Harp Music of the Azande" in African Music, Vol 3, No 3, 1964.

Fig 15: Playing technique of the kundi

Construction of the kundi: A piece of wood about 20 to 25 cm long is shaped and hollowed out as in Figure 16.

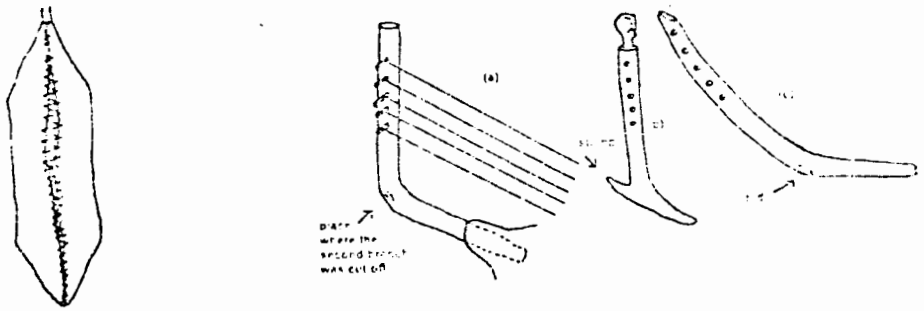
Fig 16:





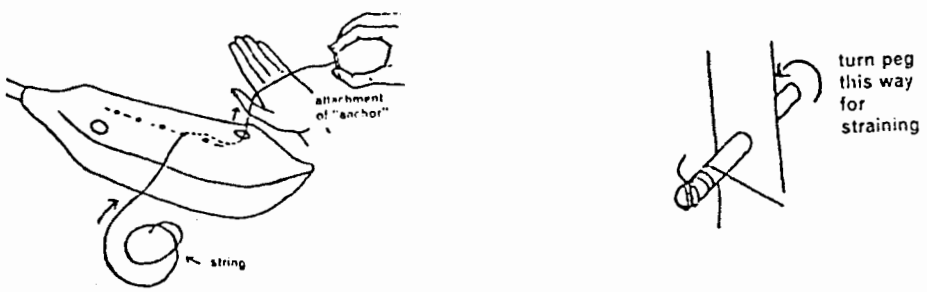
This is the resonator, which is covered with antelope skin, sewn together on the underside with a cord:

Fig 17:



Two holes are cut on the skin, diagonally opposite each other. These are not only essential for the sound but also for the threading of the strings, i.e. as in Figure 18.

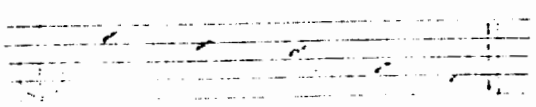
Fig 18:



The neck is cut from the fork of a very hard bough. It is pushed into the tube and the five strings are attached to the tuning pegs as in Figure 17 above.

Kubik came across harps measuring from 40 to 45 cm from the top end of the neck to the front end of the body.

The tuning of the kundi: The tonal nature of African language, that is, the pitch fluctuations in the word-syllables (see also Chapter Three) is used in the Azande language as a mnemonic to derive the kundi scale. This scale conforms in pitch fluctuation with the sentence "Wili pai sa sunge", used as a tuning formula, which yields a descending pentatonic scale with the approximate notes below:

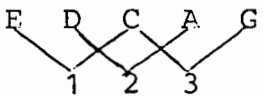


Kubik supplies the following English translation of these words: "Something of value needs work". There is no absolute pitch for each note but the interval relationships remain the same between any two notes of the scale.

Playing technique: The harp is held with the underside of the body against the player's torso and the neck facing away, as in Figure 15. The strings are plucked by the thumb and forefinger of the right hand and the thumb of the left hand, i.e.

String No 5	Written as G	}	right thumb and right
4	A	}	index
3	C	)	
2	D	}	left thumb
1	E	)	

The two-note chords are derived as follows:



This device of skipping one note and using the next note in the scale as the harmony note, is found so often in African music that it is called the "skipping principle". (15) Harpists also use D - G as a chord. These chords are combined in various sequences. Over these sequences, melodies which, according to Kubik are carefully composed, are sung by the players themselves. (16) Practically every note in the voice part is represented by the same note in the instrumental part.

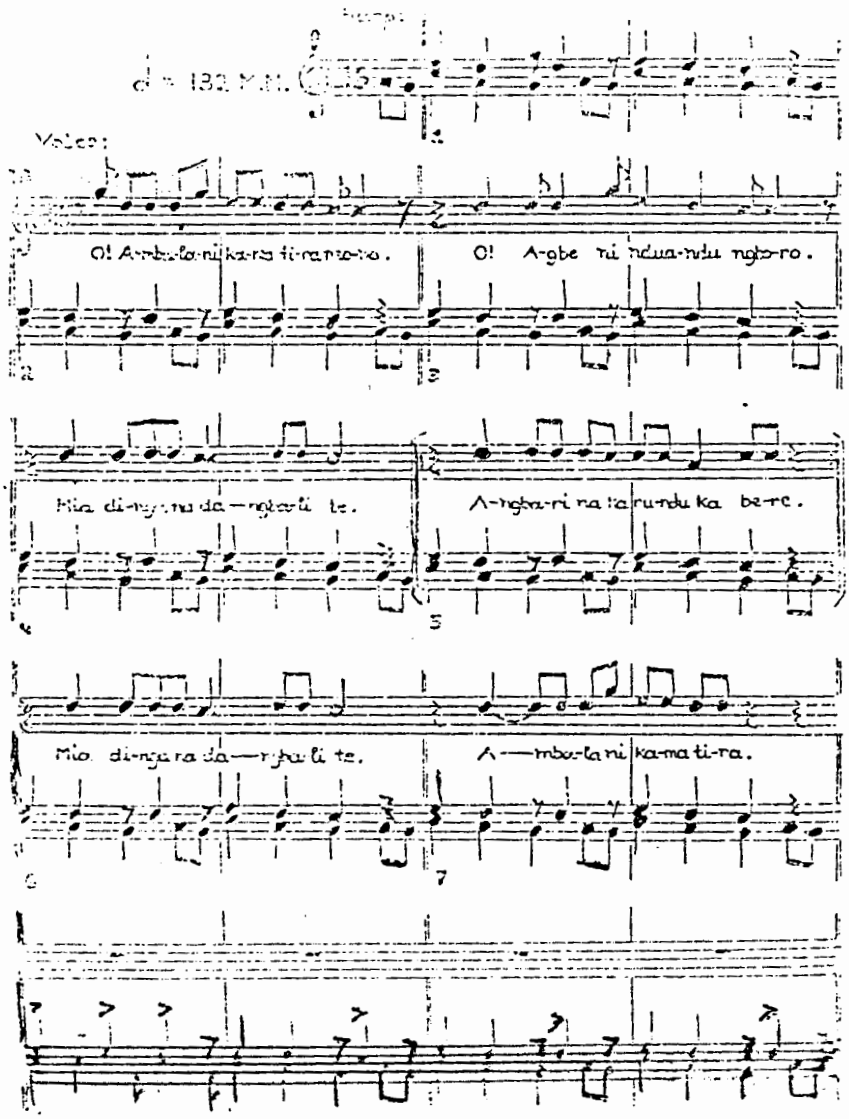
Figure 19 below is an example of a song to kundi accompaniment.

(15) passim, Chapter Six
(16) G.Kubik: "Harp Music of the Azande and the Related Peoples in the Central African Republic", African Music, 1964, Vol 3 No 3, p. 50

Fig 19:

"Agbe Ni Nduando Ngboro": Azande: Central African Republic.

Transcribed by G. Kubik.



(17)

(17) Ibid.

4.3 AEROPHONES

A wide variety of wind instruments exist in Africa, ranging from the trumpet/horn type to reed-flute ensembles. Examples of the use of the latter can be found from South Africa all the way up to the Nile. (18) Table 1 below lists some pipe-ensembles and where they are found.

Table 1:

Name of Ensemble	People	Locality
dithlaka	Tswana	Botswana
mishiba panpipes	Luba/Songe	Congo
ndere flute and drum ensemble	Soga	Uganda
chikona	Venda	South Africa
auleru	Teso	Kenya
malanzi	Gogo	Tanzania
sekiza	Konjo	Zaire/Uganda
viyanzi	Zaramo	Tanzania
sikuse	Nyoro/Toro	Zaire/Uganda
igekle	Zulu	South Africa

The Tswana Reed-Pipe Ensemble

The first people of the south of Africa to play reed-pipe ensembles are the Tswana from Botswana who, according to Kirby, borrowed it from the Korana Hottentots. (19)

(18) H. Tracey: "African Instruments and their construction: A Description of Instrument Making", lecture, College of Music, U.C.T., 1963.

(19) P.R.Kirby: The Musical Instruments of the Native Races of South Africa", p. 147

Fig 20: A Tswana pipe ensemble

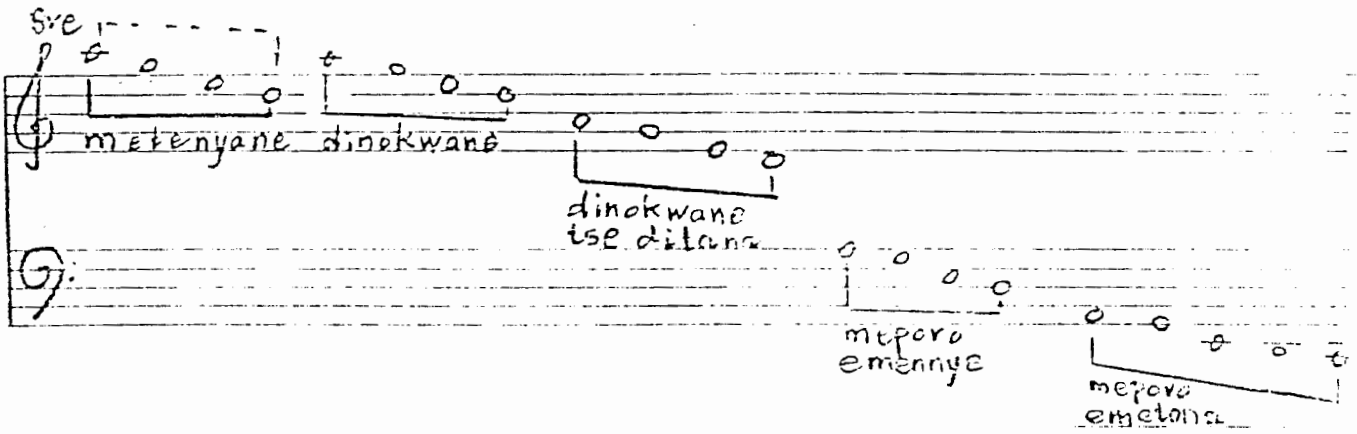
Construction: It is very easy to make a Tswana pipe. River reed is used, the nodes of which are removed. Pieces of goatskin are shoved into one of the ends, forming a plug. The pipe can thus be tuned by moving the plug up or down with a tuning stick.* Ballantine observed that these instruments are anywhere between 6 inches to 5 feet in length. (20)

How the Tswana pipes are played: Each player has one pipe. There are twenty-one players altogether who group themselves into a circle and dance in a counter-clockwise direction while playing. There are five musical groups in the ensemble.

(20) C. Ballantine: "The Polyrhythmic Foundation of a Tswana Pipe Melody", African Music, 1965, Vol 3 No 4

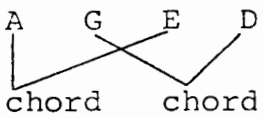
* Chewed bark is also used for the tuning plug.

Fig 21: Tuning of Tswana Pipe Ensemble



(21)

The ensemble is based on the 4-note, or tetratonic, scale. The harmony is similarly derived as the harmony of the kundi harp, discussed earlier, using the 'skipping principle', i.e.



Fourths and fifths are therefore the intervals most used in these ensembles.

Pipe-melody is based on vocal melody. According to Kirby:

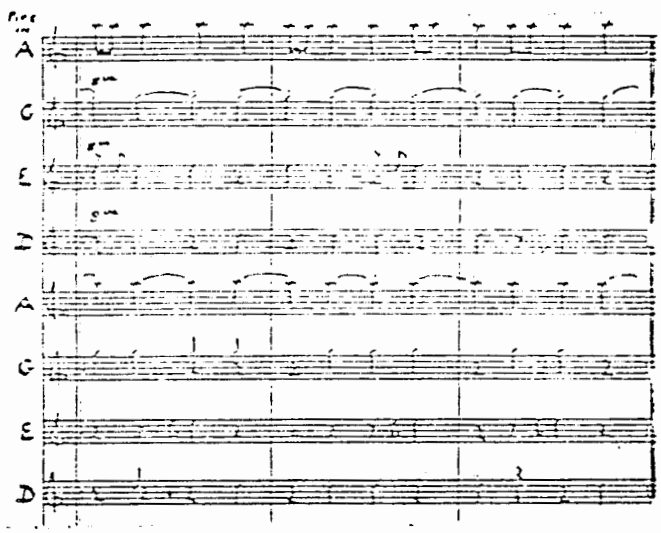
> The composer makes up his song for the voice in the first place, and sings it to his fellows. These join in, and if a tune is found suitable for the reed-flutes, it is put into practice." (22)

Figure 22 below is a typical example of a Tswana pipe ensemble. Each player enters at predetermined points in the ensemble, like bell-ringers in Western music.

(21) ibid., p. 52
(22) P.R. Kirby: op. cit., p. 157

Fig 22:

Extract from Goduma: Tswana Pipe Ensemble.

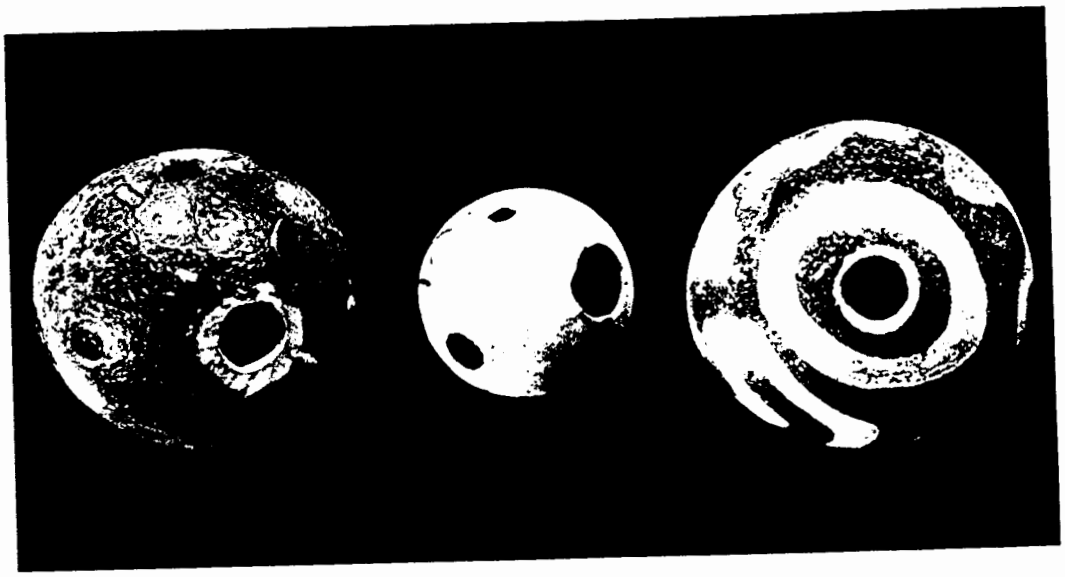


(See footnote 20 for source.)

The Venda Ocarina

The Venda ocarina is made from the shell of a 'Kaffir orange' (Strychnos) or wild custard apple.

Fig 23:



Kirby reported (23) in 1934 that the Venda call it the khumbgwe while Blacking reported (24) in 1959 that they call

(23) ibid., p. 128 ff.
(24) J.Blacking: "Problems of Pitch Pattern and Harmony in the Ocarina Music of the Vendas", African Music, 1959, Vol 2 No 2, p. 15

it tshipotoliyo (pl. zwipotoliyo). When this author compared the illustrations given by Kirby and Blacking he found that they differ from each other. The instrument which Kirby describes has a bamboo stalk stuck into the biggest hole while Blacking's example does not (as in Figure 24 above).

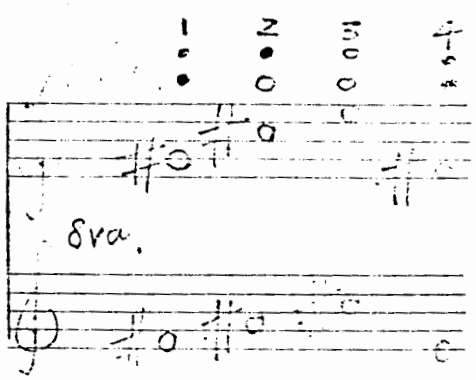
Construction of the Ocarina: The fruit is first boiled in water so that it can be hollowed out more easily. A large hole (diameter 9 - 13 mm) is cut out at the top, where it is attached to the branch of the tree. Two small holes, between 5 and 8 mm in diameter are cut one-third of the way down the circumference from the large hole.

Playing technique: The instrument is wetted thoroughly before it is played. The large hole is the embouchure, over which the player blows — this is similar to the technique of playing the Western flute. The small holes are stopped by the forefingers. Four tones can be produced.

The compass of the notes vary according to the size and other physical properties of the instrument. Blacking found this to be between c'' and f'''. (25)

Ocarinas are played in duet, and the chief prerequisite is that their pitches should be non-identical but yet 'sounding well' with each other.

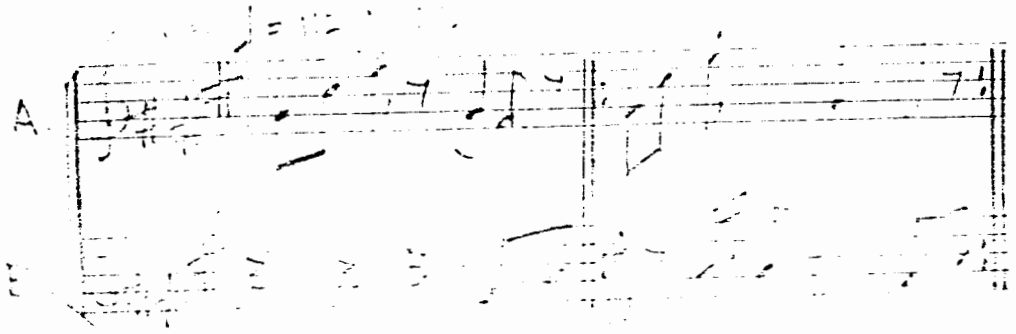
Fig 24: Fingering of the Ocarina



1 both fingers on holes
2 left finger off
3 both fingers off
4 both fingers on, but tilting the instrument towards the mouth and downwards so that a large area of the top hole is covered by the lower lip.

(25) ibid., p. 17

Fig 25: An example of an ocarina duet



(Transcribed by Blacking in "Problems of Pitch Pattern and Harmony in the Ocarina Music of the Vendas", p. 20.)

4.4 IDIOPHONES

A. TUNED IDIOPHONES

The two tuned idiophones which enjoy the most widespread use in Africa are the mbira and xylophone. These exist in various shapes and sizes and play various roles in society, ranging from the ritual to the self-delectative.

The Mbira

This instrument, very often misnamed the 'hand piano' and 'sansa' (26) is completely indigenous to Africa. The geographic distribution of mbira extends south to South Africa, north to Ethiopia and Niger, east to Mozambique and west to Gambia. Areas of concentration include Zaire, Zimbabwe, Mozambique and parts of Angola. (27)

Although there is a wide variety of mbira types, the mbira is characterized by its long, thin keys, often spatulate, by a wooden soundboard and by rattling devices, made either of shells or metal. (See Figs 26 and 27.)

The number of keys per instrument varies considerably, from eight to forty-five. Examples of the former can be found in the kalimba mbiras of the Nsenga of Zimbabwe while examples of the latter can be found in large mbira types of the Gogo of Tanzania. (28) The number of manuals also varies, from one to three.

The following table lists some of the names by which the mbira is known to various peoples: (29)

(26) H.Tracey: "A Case for the Name Mbira", African Music, Vol 2, No 4, 1961, pp. 17 - 23.
(27) P.Berliner, The Soul of Mbira, 1978, p. 9
(28) H.Tracey: "The Mbira Class of Instruments in Rhodesia", African Music, Vol 4 No 3, 1969, pp. 78 - 95
(29) Idem.: "A Case for the Name Mbira", pp. 22 - 24

Table 2

Name	People	Scale	Shape of Soundboard	Number of Notes
Budongo	Ganda/Soga Uganda	Pentatonic	Box	11
Chisanzhi	Luba Katanga	Hexatonic	Box	12
Dongo	Dhola East Uganda	Pentatonic	Box	12
Hera	Chikunda Moçambique	Hexatonic	Bell	32
Ilimba	Nkonde Tanzania	Hexatonic	Box	7
Kalimba	Lala Zambia	Heptatonic	Board	10
Likembe	Nyoro Uganda	Pentatonic	Box	11
Marimba	Jita Tanzania	Heptatonic	Box	12
Mbira doko	Karanga Zimbabwe	Pentatonic	Bell	18
Ilimba	Gogo Tanzania	Pentatonic	Box	20

Figures 26 and 27 are some examples of the various mbira types in Africa.

Fig 26: Likembe, West Central Africa.

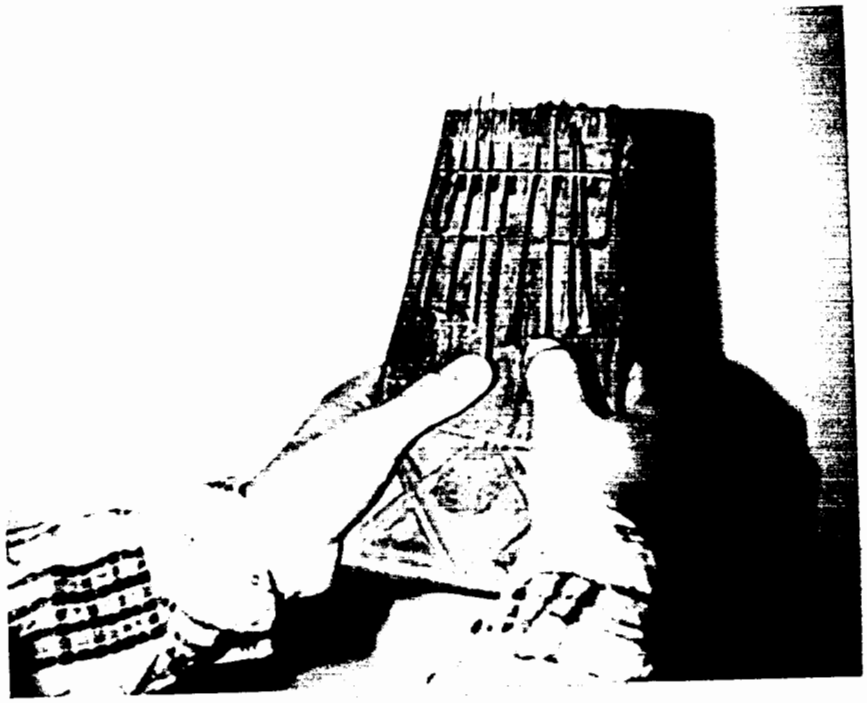
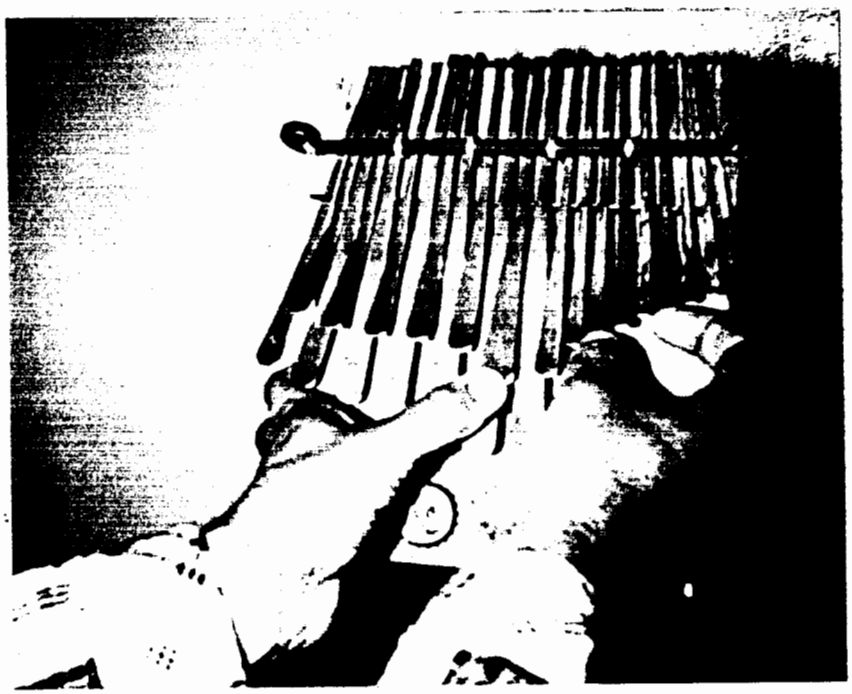


Fig 27: Mbira dzaVadzimu, Shona, Zimbabwe

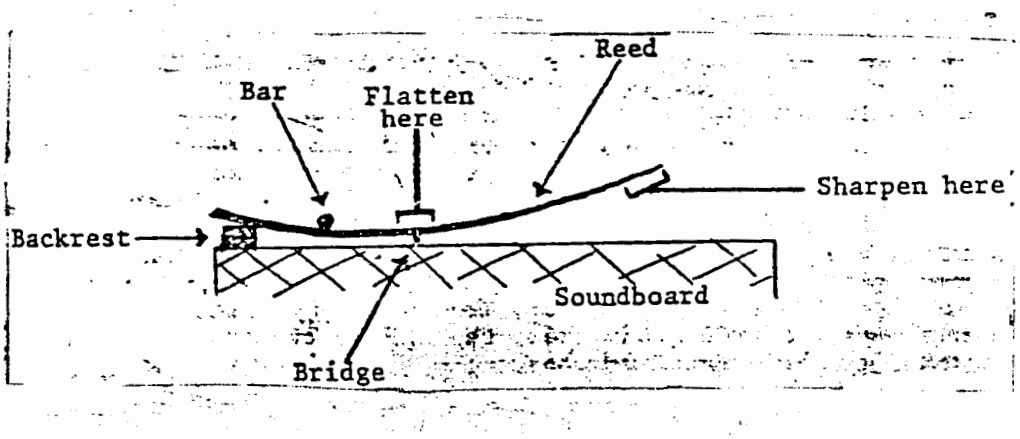


The author will concentrate his discussion on the mbira dzaVadzimu of the Zezuru of Zimbabwe.

Construction of the mbira dzaVadzimu: The mbira player is usually the craftsman of this own instrument. He considers three factors when making the keys, namely: length of the tongue, weight and elasticity. The more of each, the deeper the pitch and vice-versa. (30) A. Tracey suggests that galvanized iron fencing wire from about 8 to 12 gauge is suitable. (31)

The tip of each reed is filed into a suitable shape so that it can be easily plucked by the fingers. The reed is then fitted to the framework as in Figure 28.

Fig 28:

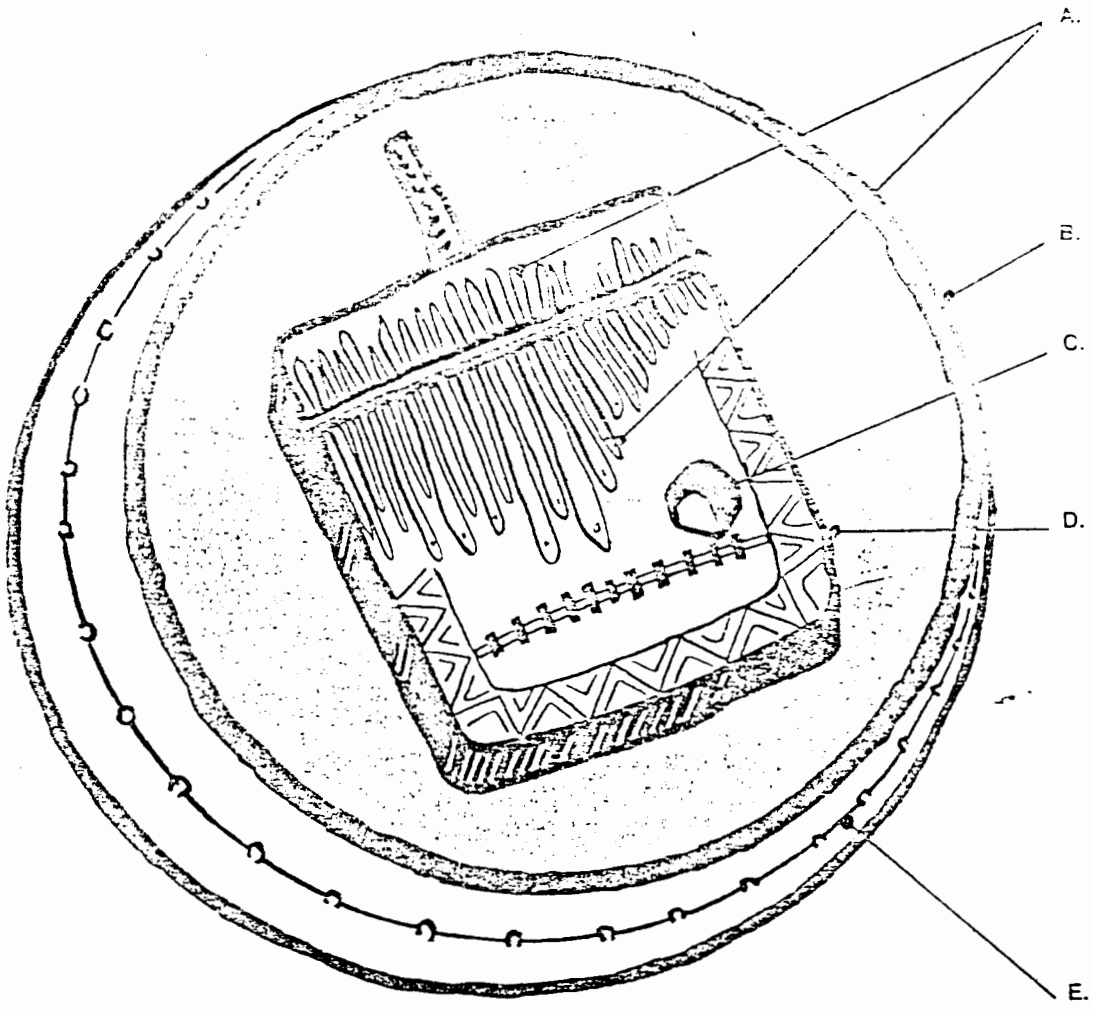


The craftsman files away some of the tip in order to sharpen the reed. To flatten it he hammers, files or grinds the part of the tongue at the bridge. He ensures that the reed tapers very smoothly over its whole length, viewed from the bridge.

The various sections of the mbira all have a symbolic meaning to the musician, even the calabash resonator into which the mbira is mounted. The Lemba of Zoutpansberg, South Africa, regard their mbira (Deze) as being symbolic of the social structure of their entire village. (32)

(30) A. Tracey: "The Tuning of Mbira Reeds: A Contribution to the Craft of Mbira Making", African Music, 1969, Vol 4 No 3, p. 96
(31) ibid., p. 97
(32) P.Berliner: "The Soul of Mbira: An Ethnography of the Mbira among the Shona People of Rhodesia", doctoral dissertation, Wesleyan University, Connecticut, 1974, p. 33

Fig 29: This illustration and description are disbelieved by many experts as they have never been substantiated by a second observer.



(33)

A. The keys represent the 22 men seated in the python's belly.
B. Calabash — symbolizes the woman's womb.
C. The hole symbolizes the deflowered girl.
D. The frame symbolizes the women who have come to help the young woman in labour.
E. The string tied round the calabash represents the python which encircles the village.

The tuning of the mbira dzaVadzimu: From Table 2 above, it can be seen that the tuning of the mbira varies from people to people; that in some instances it is heptatonic, while in others it is pentatonic, or hexatonic. There are also

(33) F.Bebey: op. cit., p. 83

local variations, i.e. two people from the same group may both tune their instruments heptatonically, for example, but the individual pitches often differ — this is a matter of personal taste. Hugh Tracey has found that this difference is at times negligible. He compared the tuning of Nyungwe tribesman's mbira with one he had in his possession. The tribesman had made his instrument in Salisbury, some 200 miles from his own folk in the Zambesi valley, and had tuned his instrument completely from memory. (34)

Hugh Tracey's mbira:	208	226	260	284	316	344	392	416*
Nyungwe's mbira:	210	232	260	288	316	352	388	420*

*vibrations per second

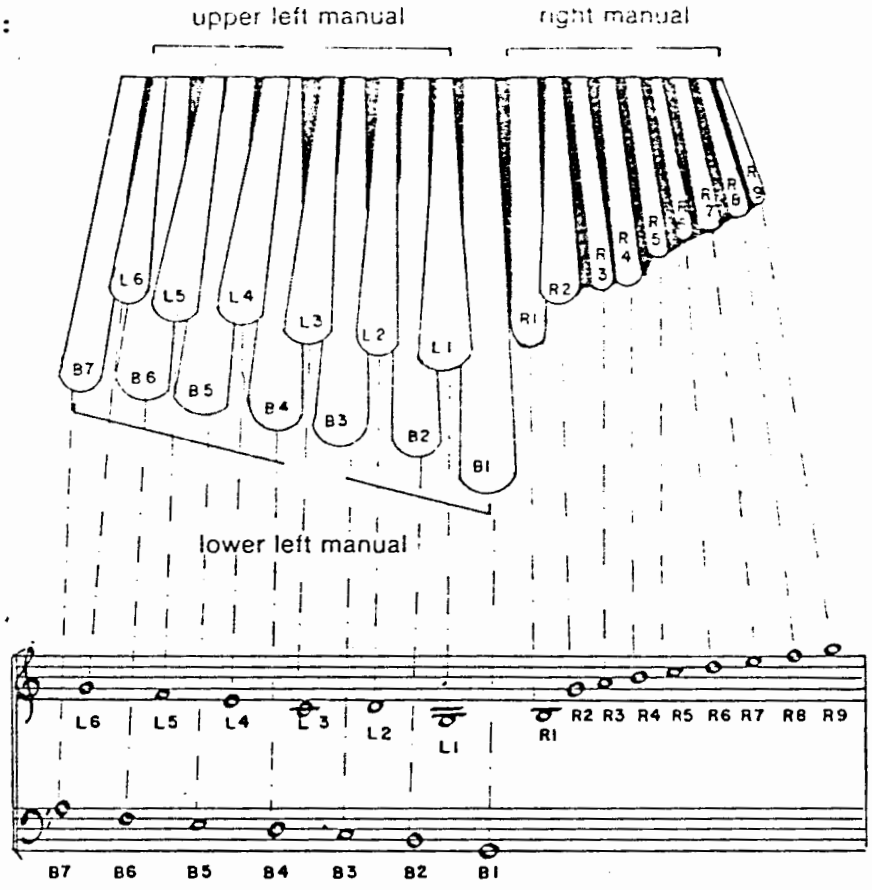
Musicians may stick to one tuning system for some time, then change to another. In this regard, Berliner mentions:

> The tunings that players of mbira dzaVadzimu adopt either as individuals or collectively as members of the same group can vary considerably, and players differ greatly in their commitment to a particular tuning. For instance, John Kunaka first played an mbira with the tuning used by his music teacher. Later he switched to his own tuning and kept it for about ten years, and he has recently changed to another tuning which he plans to keep for a "long time". (35)

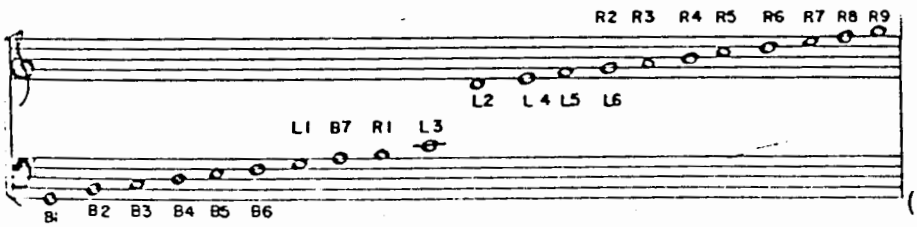
All mbira dzaVadzimu are heptatonic and in general, the notes on each key conform most closely with the following:

(34) H.Tracey: "The Mbira Class of Instruments in Rhodesia (1932)", African Music, 1969, Vol 4 No 1, p. 82
(35) P.Berliner: The Soul of Mbira, p. 60

Fig 30:



pitches in ascending order



(36)

L = left hand

R = right hand

B = bottom manual

Many notes are duplicated at the octave. (Compare B_1 with L_1; B_2 with R_1; B_3 with L_3, etc.) There is one duplication at the unison. (Compare L_6 with R_2.) This makes tremolo effects possible, a common feature of Shona mbira music.

All the keys symbolize something to the musicians. The right manual (high register) symbolizes the young girls, the upper left manual (medium register) symbolizes the older women,

(36) ibid., p. 55

while the lower left manual (bottom register) symbolizes the men.

An old musician, named Mubayiwa Bandambira, attaches the following symbolisms to each of the notes. (37) The notes which bear an octave relationship to one another have the same name.

Table 3:

Keys	Names	Explanations
L_1	Benzi (mad person)	Frightens you or makes you start; makes you feel awake; makes the heart feel wild or excited like a mad person; makes you dance wildly; has a sharp voice that leads the mbira.
B_1	Gadzanga (to put in a stable condition)	Controls the excited feeling of the benzi, the high pitch; controls high pitches; settles and holds the piece together; without this, there can be no mbira music.
B_2 R_1 R_4	Shumba (the lion)	The animal in which the powerful spirits live.
B_3 L_3 R_5	Zanga zanga (idiophone representing the swaying of a person going into a trance)	One of the most important pitches; the mother of the mbira; makes you go into a trance at spirit-possession ceremonies.
B_4 L_2 R_6	Mvundura (to stir up)	Makes your heart full; makes you dance.
B_5 L_4 R_7	Nhiura (sacrifice)	Lifts up your lungs; makes you feel like shaking your body.

(37) ibid., p. 57

R_6 L_5 R_8	Tida (no literal meaning)	Shouts from far away; sings aloud; makes you raise your voice in song.
B_7 R_3	Duri (mortar)	Like stamping millet (referring to the rhythmic sound of mortar and pestle being used to pound millet).

Playing technique of the mbira dzaVadzimu: The thumb of the left hand is used to play the two manuals of the left side of the mbira keyboard while the thumb and index finger of the right hand are used to play the one manual on the right side of the keyboard. The index finger is used to pluck the higher keys with an upward action, from the bottom of each key.

A large calabash is used as a resonator, into which the mbira is mounted (as in Figure 29).

The left and right hands play a complex interlocking rhythmic ostinato pattern and the effect is as though there are many musicians playing together. The player sings variations above this ostinato-cycle, the melodies of which he 'hears' coming out of the complex of interweaving sounds.

The mbira dzaVadzimu has a very pleasant sound which is quite acceptable to the Western ear. This is partly because the scale sounds almost like the Western Major scale. Berliner describes the sound of the mbira as follows:

> The mbira's sound has a special presence; one feels the music as much as one hears it. Its sound is penetrating and warm at the same time, immediately catching the involvement of the listeners and drawing them into its mood ... There is, in fact, no satisfying analogy for conveying its quality to one who has not heard mbira music performed. (38)

Players of the mbira dzaVadzimu usually perform in pairs. The first mbira part is called 'kushaura' (to lead) and the second part is called 'kutsinhira' (to interweave). They are accompanied by a third person playing a gourd rattle (hosho).

(38) ibid., p. 52

Mbira dzaVadzimu compositions can be distinguished into five types according to function:

1. Traditional pieces for the mbira
2. Traditional pieces for drum and chorus which have been adapted for the mbira
3. Adaptations from other mbira-types
4. Newly-composed pieces
5. Story-songs (39)

The first two categories are meant entirely for ancestral worship, called 'bira', while the others are meant for social purposes. The bulk of the mbira repertory belongs to the first two categories. Each player can interpret a traditional piece according to the way he feels. This characteristic of mbira playing ensures that even the oldest pieces always sound fresh and spontaneous. At the bira, for example, the player selects the favourite pieces of the spirit whom he wishes to call up and plays, often throughout the night, until the spirit has possessed a participant. The player has to be capable of making many variations so as not to bore the ancestral spirit with one continuous tune.

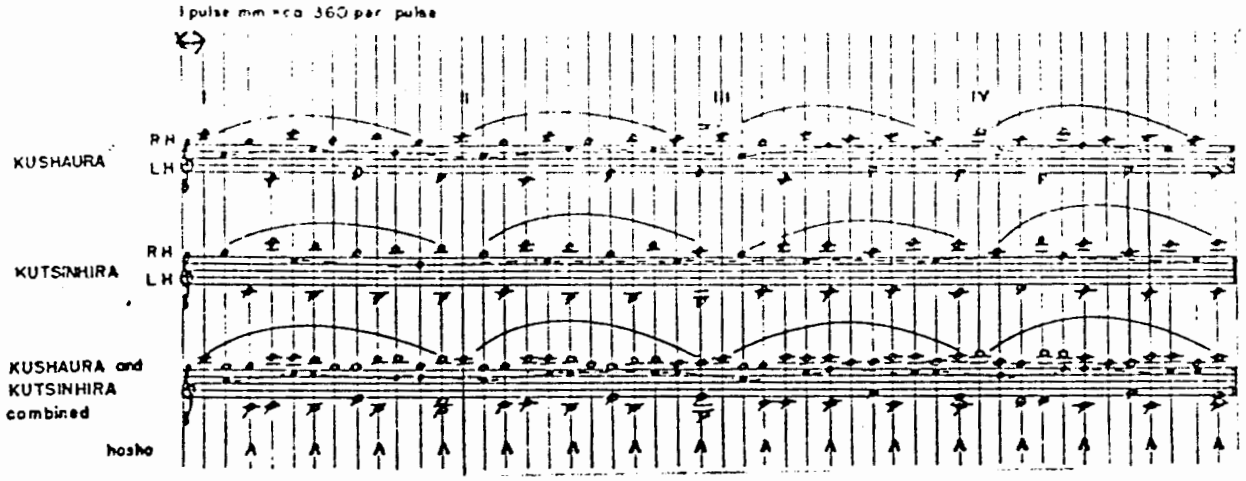
Bira take place throughout the year, whenever the people find it necessary, because it is a basic tenet of the traditional Shona religion that when someone dies his spirit lives on and influences the lives of the living. (40) The chief link between the spirit and the living is the bira ceremony, because the possessed medium is the consultant, the advisor, the doctor, or whatever other need the people have of the spirit at a particular time.

The piece below, called Nhemamusasa, is a typical example of a mbira dzaVadzimu work.

(39) Ephat Mujuru, a personal communication.
(40) P. Berliner, op. cit., p. 186

Fig 31: Transcription by P. Berliner. The hosho is the gourd rattle which accompanies the ensemble. The vertical lines represent single pulses.

Kushaura = player No 1
Kutsinhira = player No 2

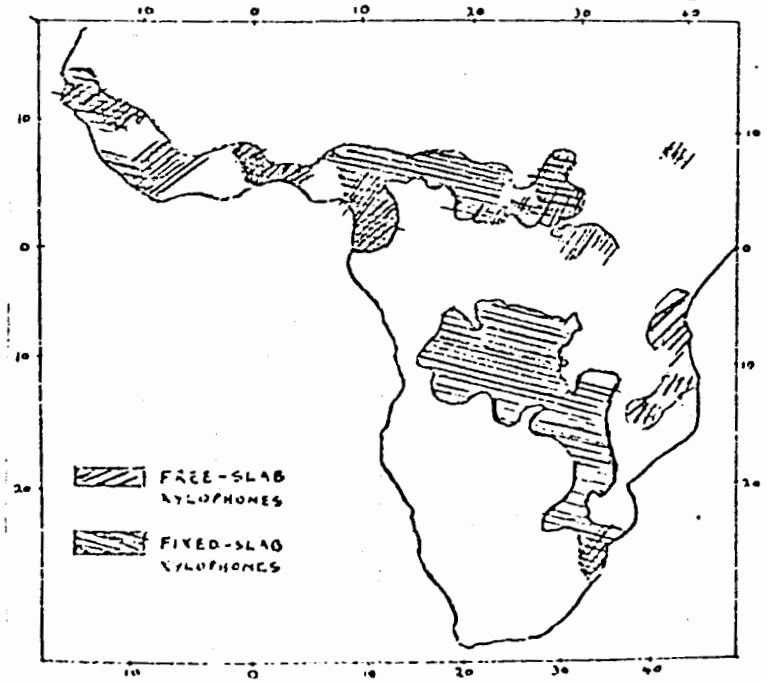


For a discussion of mbira harmony, see Chapter 6. See also Chapter 6 for a discussion of the inherent rhythms arising from interlocking mbira patterns.

The Xylophones

The xylophone, like the mbira, enjoys widespread distribution virtually all over Africa, as illustrated in Figure 32. (41)

Fig 32:



(41) D. Rycroft: "Dark Music", Manchester Memoirs, Vol 105, No 3, p. 16

From Figure 32 it can be established that there are two basic types of xylophone, fixed-slab and free-slab. The keys of the former are not readily detachable and are fitted with gourd resonators under each key. The Chopi xylophone, called timbila (Moçambique) is an example of this type.

Fig 33(a): Playing technique of Tswa muhambi (similar to the Chopi timbila)

Fig 33(b): Detail of timbila slats; opening of gourd resonator

The keys of the free-slab type are readily detachable and the resonator can be a pit, or a box. In many areas rudimentary stands, such as banana stalks, or even the legs of the player, are used, across which to place the keys. The amadinda (Uganda) is an example of the former while the Krabe xylophone from the Northern Togo is an example of the latter.

The fixed-slab variety can be found in a wide area, from West and Central Africa to East Africa, to the south as far as Venda, while the free-slab variety can be found in the Central African Republic, Kenya, Nigeria, Guinea, the Ivory Coast, Zaire and Uganda.

The earliest reference to the Chopi xylophone orchestra which the author has come across occurs in Fr. Joao dos Santos' description of his visit to eastern Ethiopia in 1586:

> ... they play upon the keys with sticks after the fashion of drum-sticks, at the points of which are battons made of sinews rolled into a light ball of the size of a nut, so that striking the notes with these two sticks, the blows resound in the mouths of the gourds, producing a sweet and rhythmical harmony, which can be heard as far as the sound of a good harpsichord. There are many of these instruments, and many musicians who play upon them very well. (42)

Like the mbira, xylophones also vary with respect to the number of notes and tuning. Some have only one to four keys. Bebey mentions the following peoples who play these: the Kabere of Togo, the Baule of the Ivory Coast and the Nsenga of the Valley Tonga. (43) Xylophones ranging from ten to over twenty keys can be found in many more areas than the smaller types. Table 4 below lists some of these.

(42) G.M.Theal: "Records of South-Eastern Africa" (Quoted by P.R.Kirby: The Musical Instruments of the Native Races of South Africa, p. 47.)

(43) F.Bebey: African Music: A People's Art, p. 84

Table 4:

People	Place	Number of Keys
Ganda	Uganda	12; 17
Chokwe	Angola	17
Pende	Zaire	17
Chopi	Moçambique	10; 12; 16; 19
Venda	Venda (RSA)	21

A more detailed discussion of the amadinda xylophone now follows.

The author has had the unique experience of learning to play the amadinda and playing it at a concert. For this he is much indebted to Mr A. Tracey, the director of the International Library of African Music.

The amadinda xylophone is played by the Ganda in Uganda, north of Lake Victoria. The akadinda, which has twenty-two keys is also played in this region. Both of these belong to the free-slab variety.

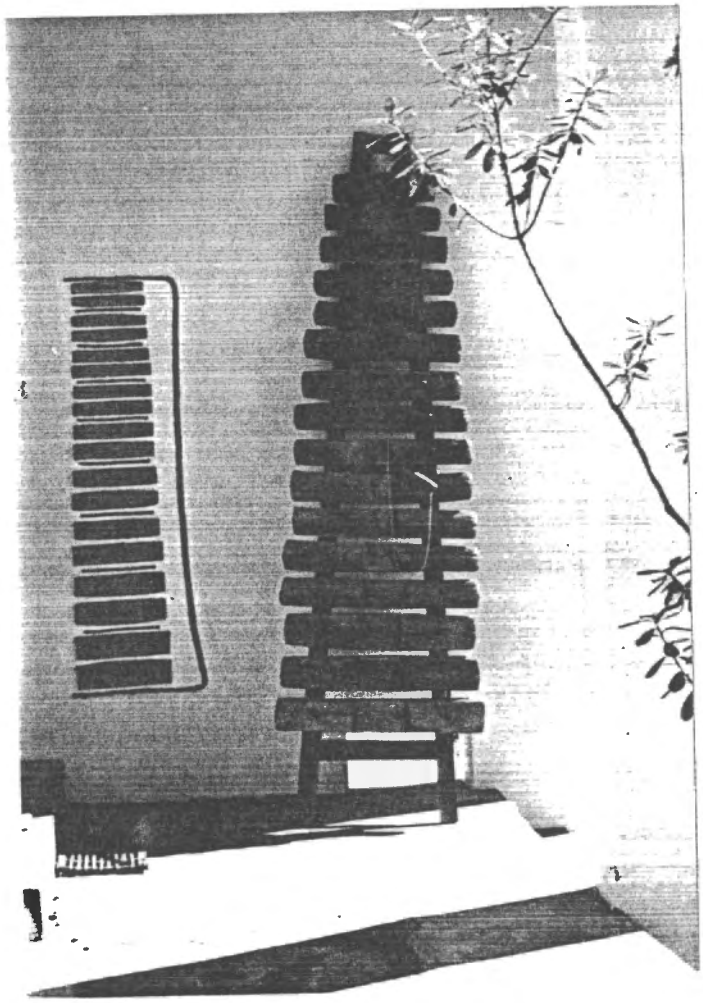
The Construction of the Amadinda: (44) Thirteen small holes, at equal distances from each other are bored into each of two freshly-cut banana stems. Thin sticks, about 35 cm long are fixed into each of these holes. The banana stems are placed opposite each other and the wooden keys are placed in-between the sticks. These are made from lusambya (in the Luganda language), according to Kubik. (45) A. Tracey has found kiaat wood to be equally suitable.

The notes are struck on the ends with wooden beaters about 35 cm long and 2 cm thick.

(44) G.Kubik: "The Structure of Kiganda Xylophone Music", African Music, 1960, Vol 2 No 3, pp. 6 - 30
(45) ibid., p. 7

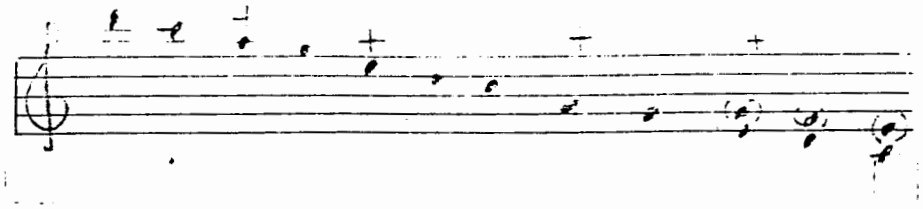
Fig 34(a): Playing technique of the amadinda

Fig 34(b): Amadinda at the doorway of the International Library of African Music, Rhodes University, Grahamstown.



The Tuning of the Amadinda: The amadinda is tuned pentatonically. It is rich in overtones. The tonal base is approximately F sharp but to avoid accidentals it is transposed down to C. The notes do not represent equal temperament; +'s represent the notes which are slightly sharper than written.

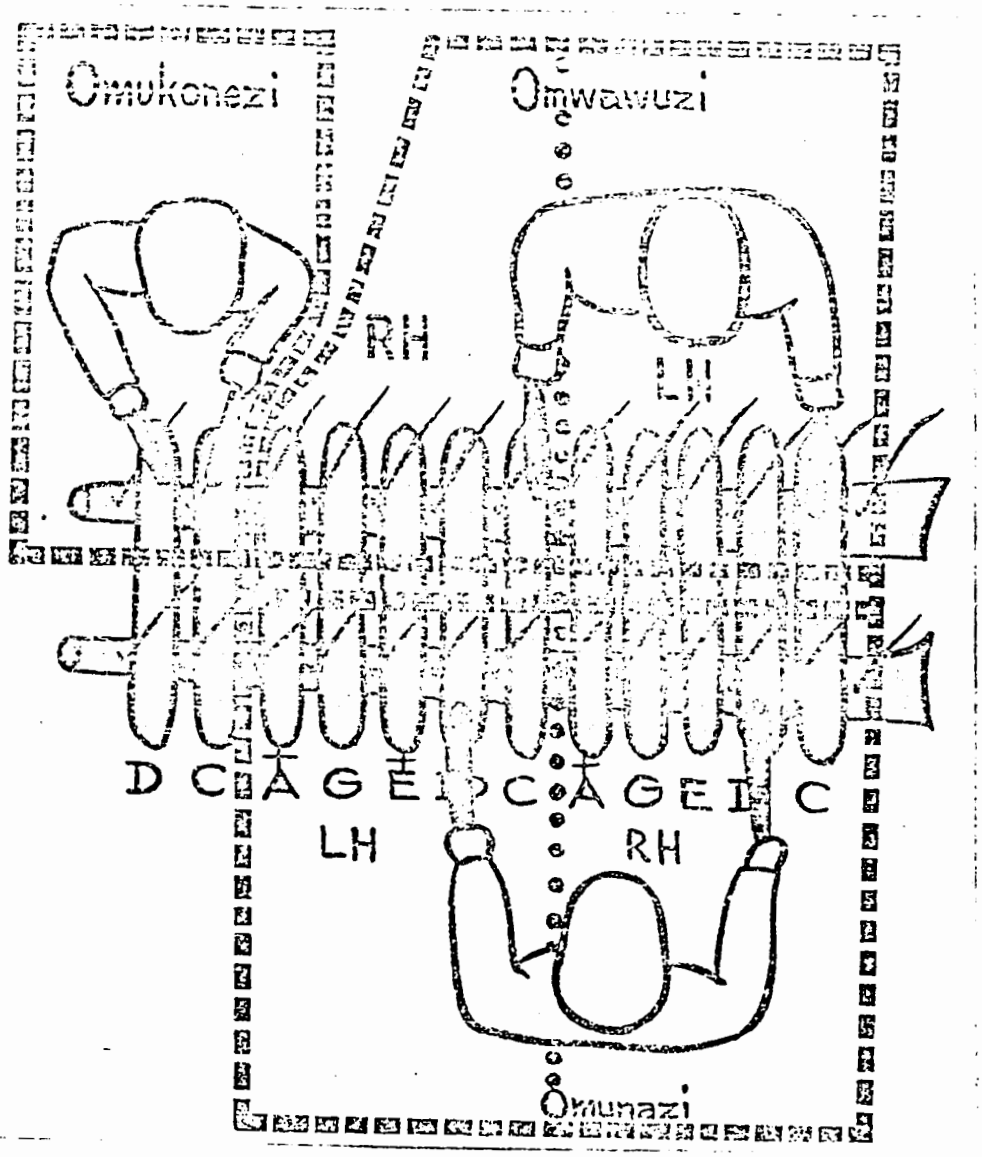
Fig 35:



The lowest notes, represented as X, XI and XII in Figure 34, although sounding as E, D and C respectively, are not as obtrusive as their overtones. (See the notes in brackets above X, XI and XII in Figure 35. This same aspect has been observed in bow music, discussed earlier.)

Playing Technique: The amadinda is completely self-sufficient as a musical instrument because it is meant to be played by three players. It represents a very compact instrumental trio because they are all playing on the same instrument. These players sit on the ground, two opposite each other and the third player next to the first, as shown in Figure 36.

Fig 36:



(46)

Kubik describes the seating arrangement of the players as follows:

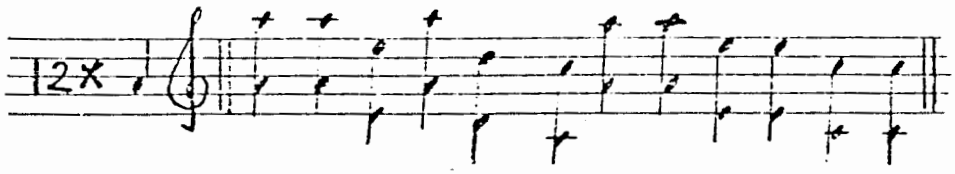
> The one who starts a tune and who sits at the xylophone with the larger keys on his right is called Omunazi. Opposite him, striking the other ends of the keys, sits the Omwawuzi. Each of these two players has a whole range of the xylophone except the two smallest keys at the top at his disposal. On the right of the Omwawuzi sits the Omukonezi, whose part is melodically limited to the notes of the two

(46) G.Kubik, op. cit., p. 10

top keys. None of the three musicians is allowed to exceed his limited range. (47)

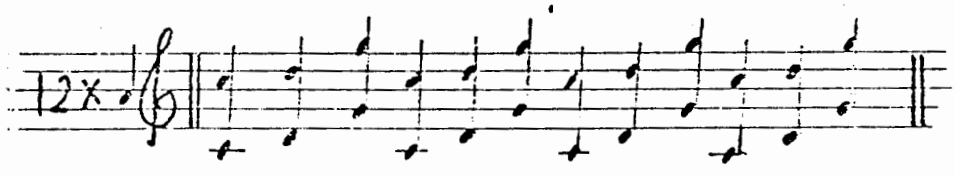
The first player starts off by playing his pattern in parallel octaves. In the example below, his pattern consists of twelve notes. The pattern must be played with strict adherence to the rhythmn.

Fig 37:



The second player enters at a suitable point in the ostinato cycle of the first, also playing in parallel octaves. (See Figure 38.) His rhythm is the same as that of the first player, but with one important difference: it is staggered from the first pattern at the distance of a semiquaver. This results in interlocking of the two melodic lines. This aspect is also very characteristic of mbira and, to a lesser extent, of kundi music.

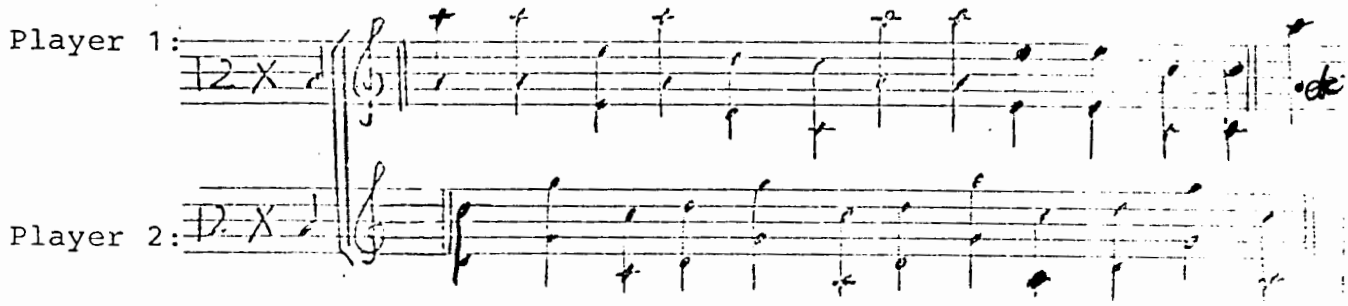
Fig 38: The second player thinks of his pattern as being on the on beats and then he fits it inbetween the notes of the first, i.e.



Their combination, however, is as follows:

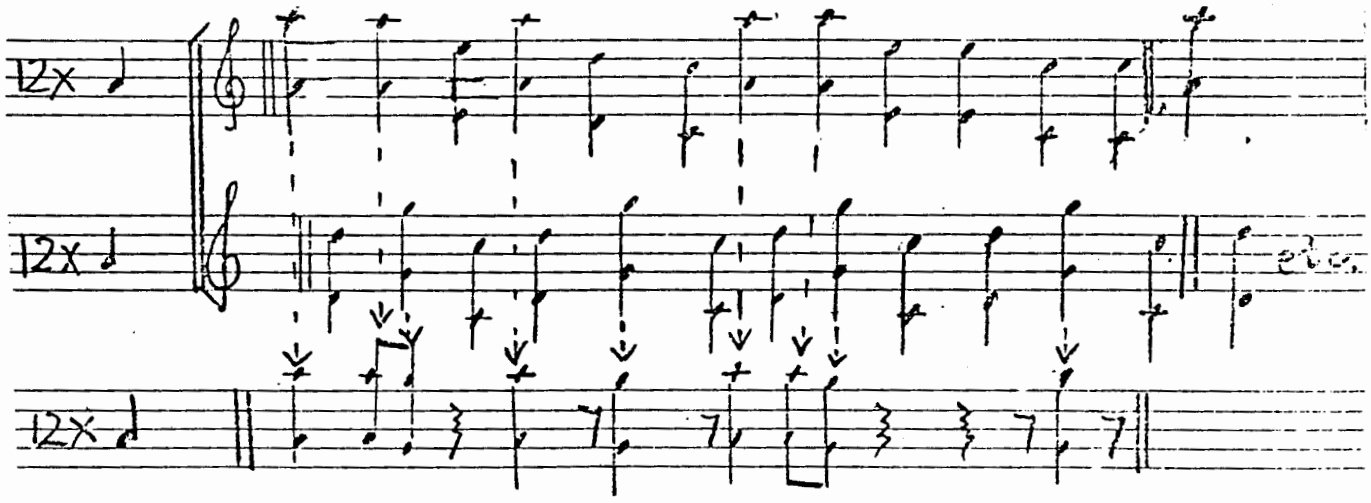
(47) ibid., pp. 9 - 10

Fig 39:



Because of the melodic/rhythmic interlocking of these two patterns, many other patterns impinge upon the ears of the listener as a result of their combination. Besides hearing players 1 and 2 the listener also hears the combination of similar pitches as a result of their interaction, for example:

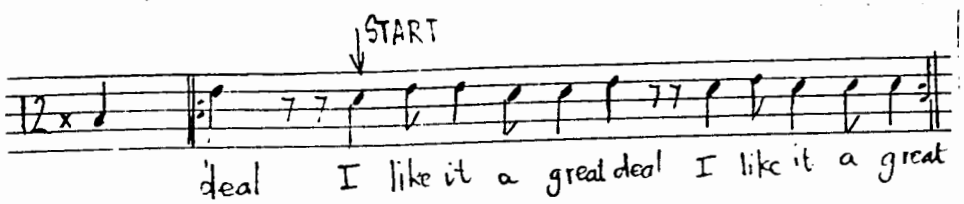
Fig 40: Combination of A's; G's



These Kubik calls "inherent rhythms".

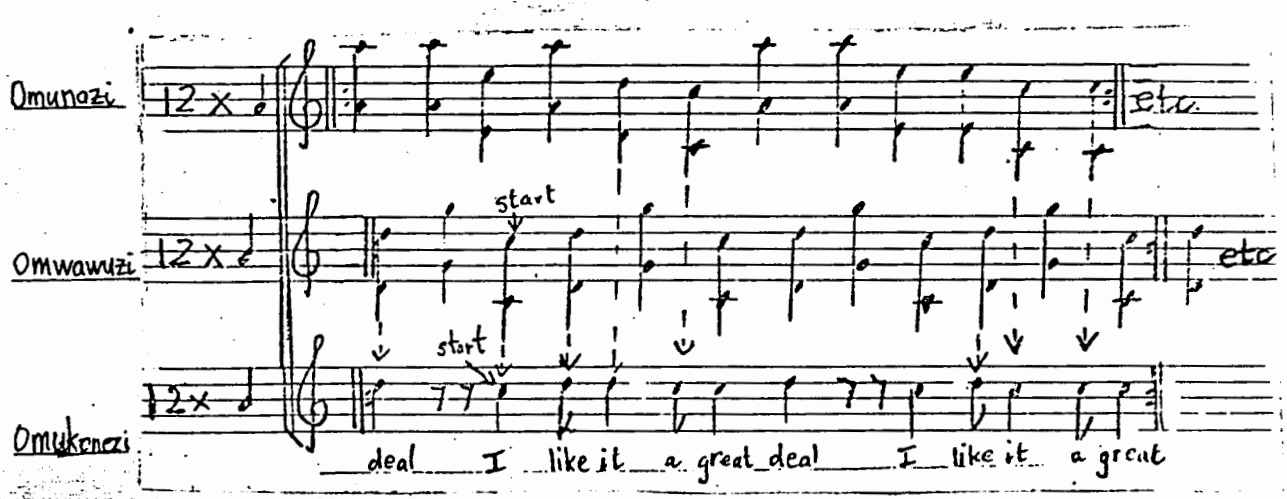
The last player now makes his entry. He has the formidable task of duplicating all the C's and D's (the lowest notes on the amadinda) the moment they are played by players 1 and 2. Formidable, because he has to duplicate not one player's, but the combination of, C's and D's. This often turns out to be a very complex rhythm because the combination of C's and D's of players 1 and 2 is always against the beat. The author has found that one has to think of these not as isolated notes, but in terms of a melody. Speech associations, as the one below, also help a great deal.

Fig 41: (This pattern is derived as in Fig 42.)



This is the complete ensemble. Each part is played at great speed in a continuous cyclic ostinato. The speed enhances the establishment of the inherent patterns discussed above. (See also Chapter Five.)

Fig 42:



Each player should adhere rigidly to his part. The more skilled players play melodic variations, called "muko". (48)

Playing the amadinda is a very pleasant experience, in which the three musicians work in very close collaboration with one another. No analogy in Western music can satisfactorily convey the uniqueness of this experience.

(48) G.Kubik: "Composition Techniques in Kiganda Xylophone Music", African Music, 1969, Vol 4 No 3, pp. 22 - 72

B. NON-MELODIC IDIOPHONES

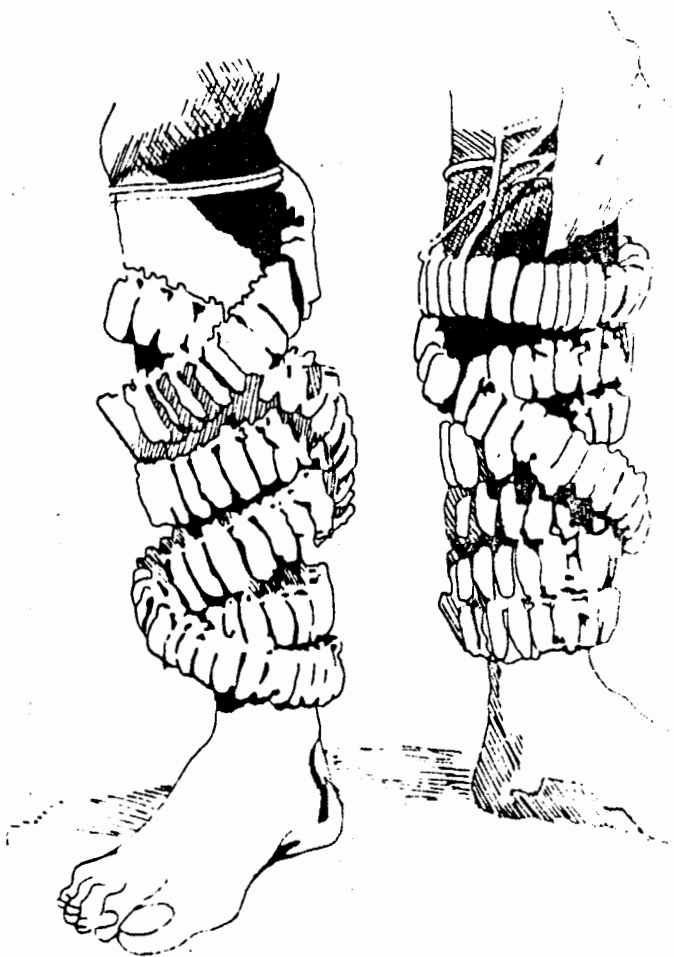
These idiophones are either struck, shaken or scraped to produce sounds which are non-melodic in quality. In ensembles they are used to enhance the rhythm and therefore play an integral role, in spite of their rudimentary structure.

The existence of these instruments in Africa can be attributed to the African predisposition towards percussive textures.

Dance Rattles

All the South African indigenous peoples have dance rattles which they wear around their legs. They are made from the materials which are found in the local environment of each of these peoples. The Sotho, for example, make their rattles from a cluster of cocoons or dried seed pods filled with stones, while the Shangaan-Tsonga make theirs from dried palm leaves which have been woven in such a way as to take on the same characteristic of the cocoons. These are usually tied together with leather thongs, string or twine.

Fig 43:



Hand-Shaken Rattles

The Thonga, who call their instrument the ndjele, burn holes through the top and bottom of an oval calabash, through which they thrust a stick which serves as a handle. Small stones are placed inside the calabash to produce the sound. (49)

Clappers

Kirby noted the use of hand-clappers among the Thonga in Johannesburg. These clappers, called spagane, are used to increase the sounds of the hand-clapping. (50)

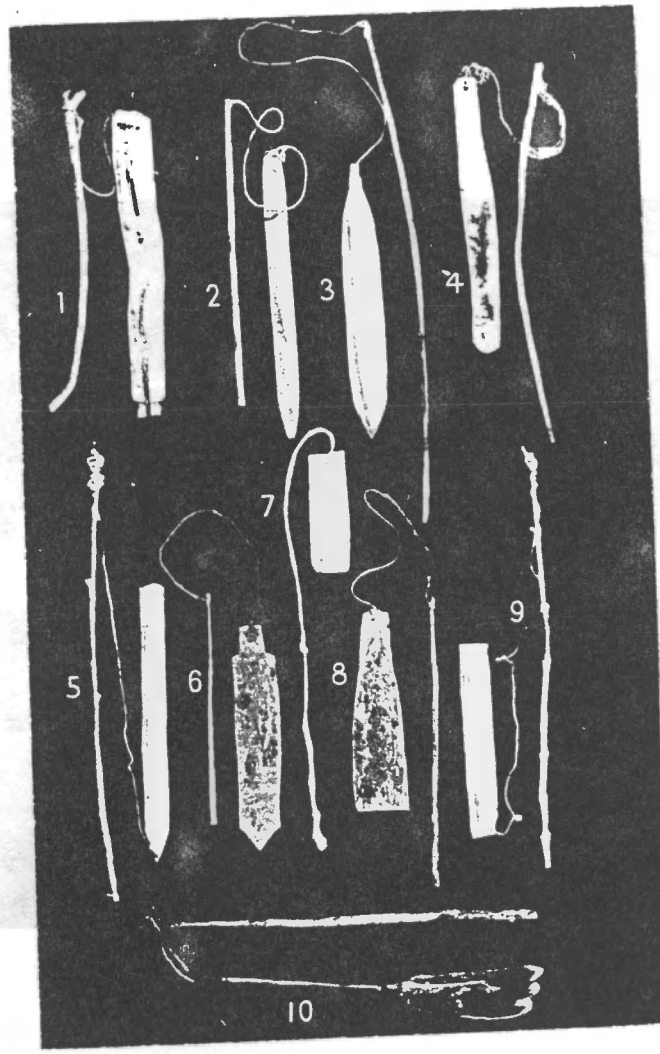
Bull-Roarers and Spinning-Discs

Hadden suggests that the bull-roarer could have been independently invented in different parts of the world at different times. He says: "... it is usually regarded as very sacred and as being either a god itself, as representing a god, or as having been taught to men by a god." (51)

The bull-roarer consists of a thin piece of wood attached to a stick by means of a strong cord. The stick is held by the hand and twisted around in such a manner as to make the bull-roarer whirl through the air.

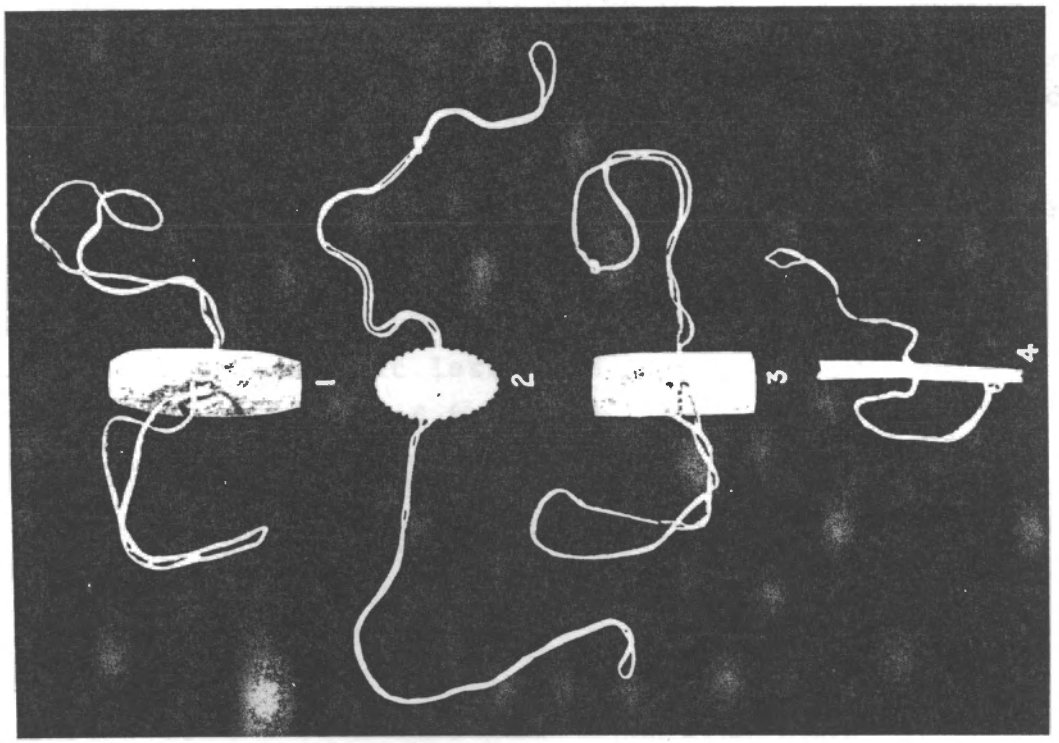
(49) P.R.Kirby: The Musical Instruments of the Native Races of South Africa, p. 8
(50) ibid., p. 10
(51) A.C.Hadden: The Study of Man, 1896 (Quoted by J.R. Harding: "The Bull Roarer in History and in Antiquity", African Music, 1973, Vol 5 No 3, p. 40.)

Fig 44:



The spinning-disc is also a bull-roarer type. A loop of string is passed through two holes in a flat disc of wood. The string is wound, after which it is pulled vigorously, causing the wood to spin. This causes a whirring sound. The momentum of the disc causes the string to wind again, so that the 'player' can continue for as long as he/she wishes.

Fig 45:



Among the Xhosa, this is known as uvuru, probably in imitation of the sound made by the spinning-disc.

4.5 MEMBRANOPHONES

The drum is the instrumental-type of Africa which has gained most popularity outside Africa. For many non-Africans, it remains the only instrument in Africa, an erroneous judgement which may remain with the Western world for many years.

The African love for percussion textures finds its highest expression in drums. However, there is an almost complete absence of drums in South Africa. Dr Hugh Tracey attributes this to the fact that less than one percent of South Africa was originally covered by trees. (52)

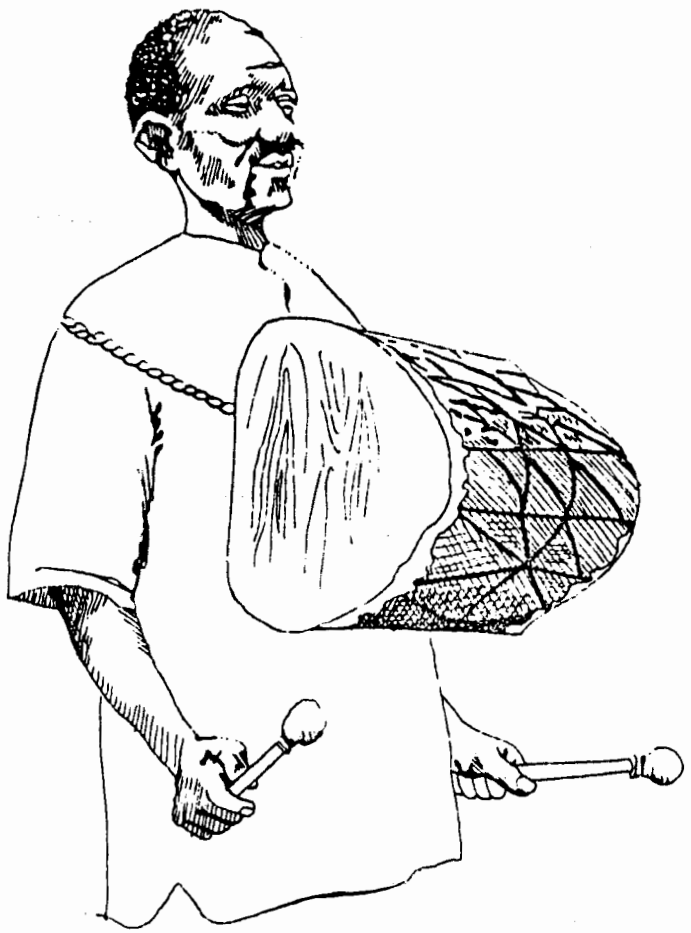
The nearest the Xhosa has come to the drum is an ox hide held by a number of people and beaten with sticks, known as the ingqongo. The fact that no wood is used as a resonator collates strongly with Dr Tracey's rationale for the absence of drums in South Africa. According to Kirby, the ingqongo is representative of a very elementary stage of the membrane type of drum, because it does not have a resonator. (53)

Fig 46:

(52) H.Tracey: "African Instruments and their Construction", lecture, College of Music, University of Cape Town, 1963.
(53) P.R.Kirby: op. cit., p. 25

The Zulu of the Natal area have a drum called the isigubu. From the illustration in Figure 47 it can be seen that this drum is modelled upon the Western military bass-drum; for example, the two 'heads', the lacing, the padded sticks and the fact that the musician uses shoulder-straps.

Fig 47:



The Venda have two indigenous drums, namely the ngoma and the murumbu. The ngoma, the bigger of the two, is hemispherical in shape and has a wide diameter. The one which the author saw in the Johannesburg Africana Museum (in which the Kirby Collection* of African Instruments is housed) has a diameter of 164 cm. The murumbu is tubular or conical in shape with the base flaring slightly.

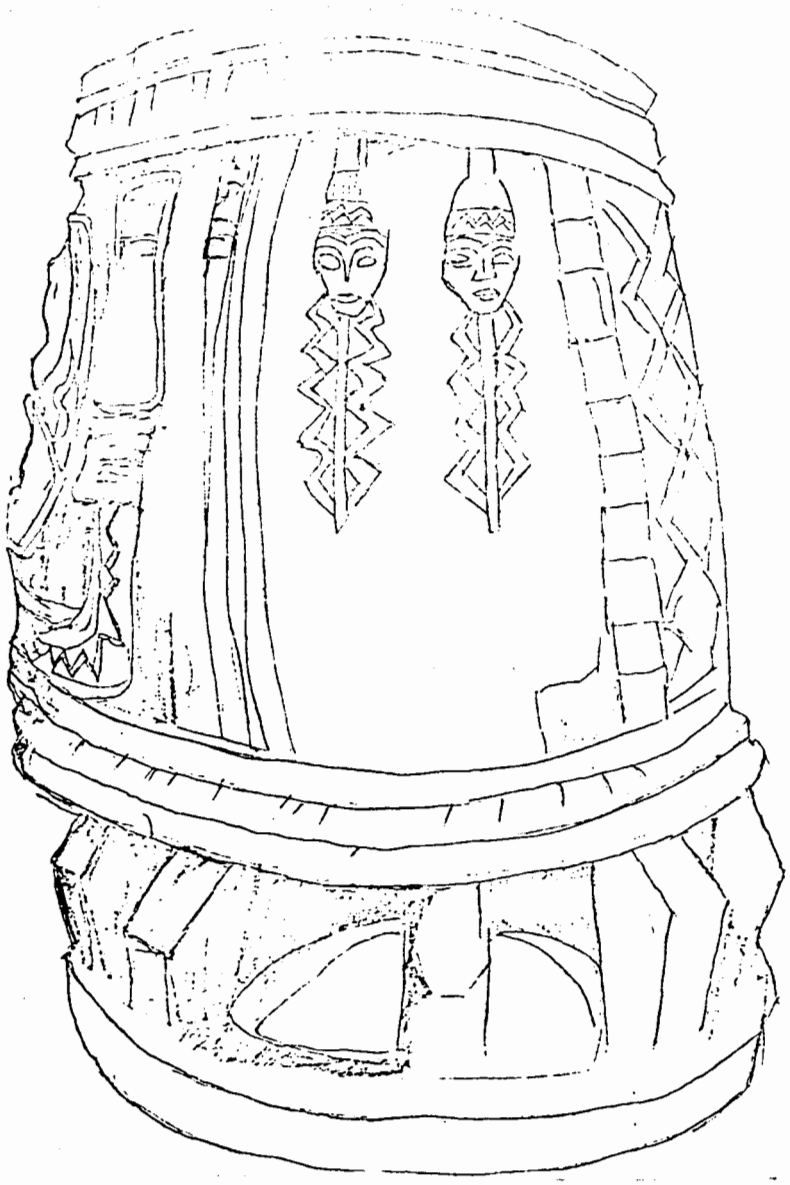
* This collection has recently been purchased by the College of Music of U.C.T.

Fig 18: Two ngoma flanked by two murumbu

As one proceeds northwards in Sub-Saharan Africa, the concentration of drums increases. Countries like Ghana and Nigeria are famous for their drumming ensembles.

Drums appear in a wide spectrum of shapes and sizes. There exists hour-glass, globular, cup-shaped, tubular, conical, bottle-shaped and as many other varieties as there are areas. Some drums, like those played by the Ashanti of Ghana are elaborately ornamented to display various symbols which represent lineage beliefs or anything which is of relevance to the people concerned.

Fig 49:



Many of the names which are given to the drums are onomatopoeic representations of the sounds they make. Here are a few examples:

Nabita	Northern Congo	Medje
Mutumba	Zimbabwe	Sena/Tonga
Warugurubibi	Rwanda	Tutsi
Aguda	Nigeria	Yoruba
Kidi	Ghana	Anlo
Gogogo	Zimbabwe	Tonga
Kingaridi	Zimbabwe	Tonga
Mujinji	Zimbabwe	Tonga
Pininga	Zimbabwe	Tonga
Pati	Zimbabwe	Tonga

African musicians go to great lengths to make their drums play melodies. They tune them well before the time of performance, using various methods. The Manganja of Malawi use castor oil wax, which they place at the centre of the drumheads to obtain the tone desired. They remove this from the membranes almost immediately after playing as it is said to spoil the membranes if left on for too long. (54)
The Zaramo of Tanzania wet the drum membrane and leave it to dry over a fire until acquiring the tone desired.* The Ganda of Uganda tune their drums pentatonically. (Examples of their music can be found in "The Music of Africa" series, No 29, Side B, Nos 4 and 5.) The transcriptions of A.M.Jones of the Ghanaian drumming ensembles are in staff notation. (55) These are some of the facts which indicate that the African regards his drum as serving a melodic purpose as well as a rhythmic one.

The shape and size of the drum, the type of wood from which it is crafted, the skin used for the membrane all influence the tone colour. It is said that lizard skin, for example, gives a bright tone. The African has come across the most suitable combination of these purely through trial and error and a sensitive ear.

African musicians have devised, without outside assistance, various hand-strokes in order to produce high or low tones.

The hour-glass drum of West Africa is capable of a wide range of tones, because the tension of the membranes can be varied through adjusting the pressure on the thongs connecting them, as in Figure ..

(54) H.Tracey: op. cit.
(55) A.M.Jones: Studies in African Music, Vol 2

* This is the normal method of tuning a drum, namely by using fire and water.

Fig 50: Hour-glass drum: West Africa.

The Role of the Drum in African Life

The drum has three chief roles in African life. These are listed and explained below:

Religious Ritual: The Xhosa ingqongo, mentioned earlier, has a Swazi counterpart, called the intambula. This instrument was formerly used during the completion of the initiation of the witch-doctor, but is also used to exorcise evil spirits. (56) The Tsonga also use a drum, called ncomane, for exorcism. (57)

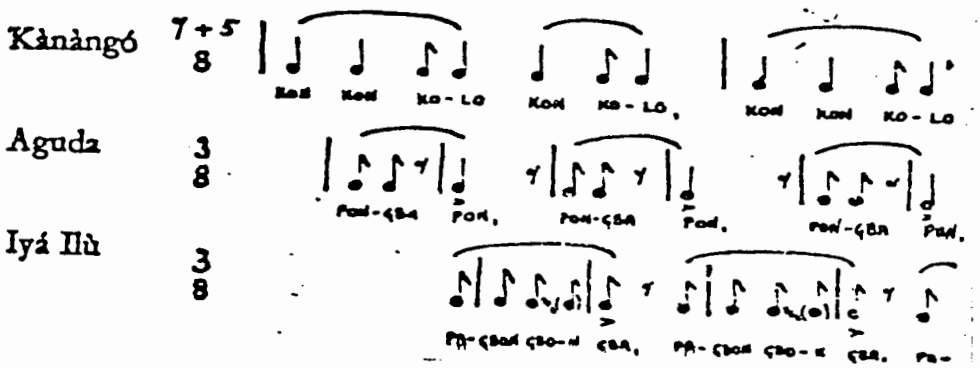
In Zimbabwe, drums are often used to accompany mbira ensembles at bira ceremonies. When mbira players are not available drummers replace them. (58)

(56) P.R.Kirby: op.cit., p. 20
(57) T.F.Johnston: "Shangana-Tsonga Drum and Bow Rhythms", African Music, 1971, Vol 5 No 1, pp
(58) P.F.Berliner: The Soul of Mbira, p. 188

Some drums are reserved especially for religious rituals. In Benin, for example, the bata drums of the Yoruba are used to salute the divinity. (59)

The Yoruba of Nigeria honour the gods with their drumming ensembles. Figure 51 represents the drumming ensemble played in honour of the god Ogun (the god of war, iron; worshipped by soldiers, blacksmiths and hunters).

Fig 51: Drumming in honour of the god Ogun, Yoruba: Nigeria



(60)

Talking and Signal Drums: These are dealt with together here because they have the same function, namely, to communicate.

Talking Drums: Skilled drummers are able to convey messages on their drums by playing tonal sequences which are directly related to the tones of their language. The fact that African languages are tonal means that the tonal pitch in each syllable of a given word determines its meaning. (See also Chapter Two.) These drums are known as talking drums. They are not found south of the Congo River Basin, but they abound from here northwards, for example, the Ntimbo drums of the Nyoro (Uganda) and the drums of the Ewe and Ashanti of Ghana.

Talking drums announce births, deaths, marriages, sporting

(59) F.Bebey: African Music: A People's Art, p. 100
(60) A.King: "Employment of the 'Standard Pattern' in Yoruba Music", African Music, 1960, Vol 2 No 3, p. 53

events, government messages and war. (61)

Bebey cites an interesting example of the use of talking drums in African society when he refers to the Adiukru peoples of the Ivory Coast:

> During the graduation ceremonies from one age-class to another, tom-toms assume the attributes of real human beings; they speak to the young men who answer them. Then, the young people talk to the tom-toms who 'listen' and reply. A real conversation takes place between the musical instruments and the men who made them, a dialogue between music and its creator — man. (62)

Of the type of musical activity quoted above, Chernoff says that it is a cultural act which reveals people involving themselves with their own communal relationships. (63)

Talking drums, unlike some of the drums used at religious rituals, are not meant exclusively for talking, but are also used in drumming ensembles.

Signal Drums: The most appropriate Western analogy for the signal drum is the telegram, because it, like the telegram, transmits important messages in as few words as possible. Talking drums can assume the function of signal drums. Radio Ghana transmits the signal "Ghana Listen" ($C_2G_2C_2$) on the drum before the news broadcasts. (64)

Drum signals can also represent a call to arms, the death of a figurehead or simply that it is going to rain. These can be transmitted by various drums situated some distance from one another in a chain-reaction.

Drumming Ensembles for Social Occasions: The number of drums participating in a drumming ensemble vary in number, anywhere from two to fifteen altogether.

They are found in many areas in Africa but the concentration increases as one goes northwards, finding a climax in Ghana,

(61) B.Deitz and B.Olatunji: Musical Instruments of Africa, p. 33
(62) F.Bebey: op. cit., p. 12
(63) J.M.Chernoff: African Rhythm and African Sensibility, Aesthetics and Social Action in African Music.
(64) F.Bebey: op. cit., p.10.

Zaire, Tanzania, Rwanda and other northerly countries. The Anlo, for example, of the island called Anzaleo in South-Eastern Ghana, have more than thirty-seven drumming ensembles.

The rhythms played by each of the members of a drumming ensemble are carefully orchestrated. The high-pitched drums and idiophones act as time-keepers while the lower-sounding drums may improvize. This applies to all drumming ensembles. Ewe drumming (Ghana) typically represents this characteristic. Small drums and high pitched idiophones play the unchanging ostinato which provides the gait of the music. Drums in the middle pitch-register support this ostinato with varied patterns; they also support the improvisatory rhythms of the master drummer (main drummer) with responses. (65) The diagram in Figure 54 summarizes the role of each drum in the ensemble.

Fig 52:

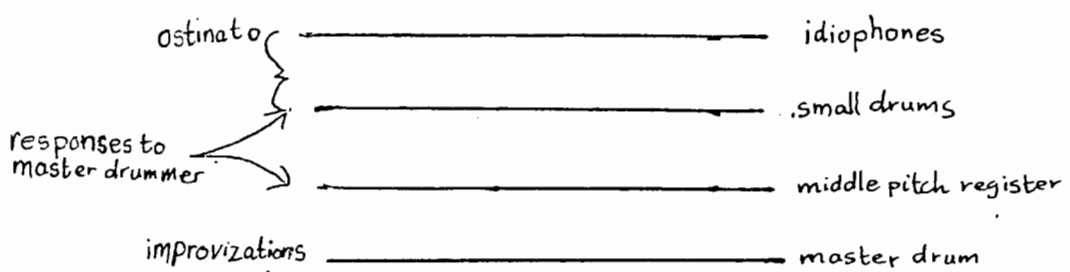
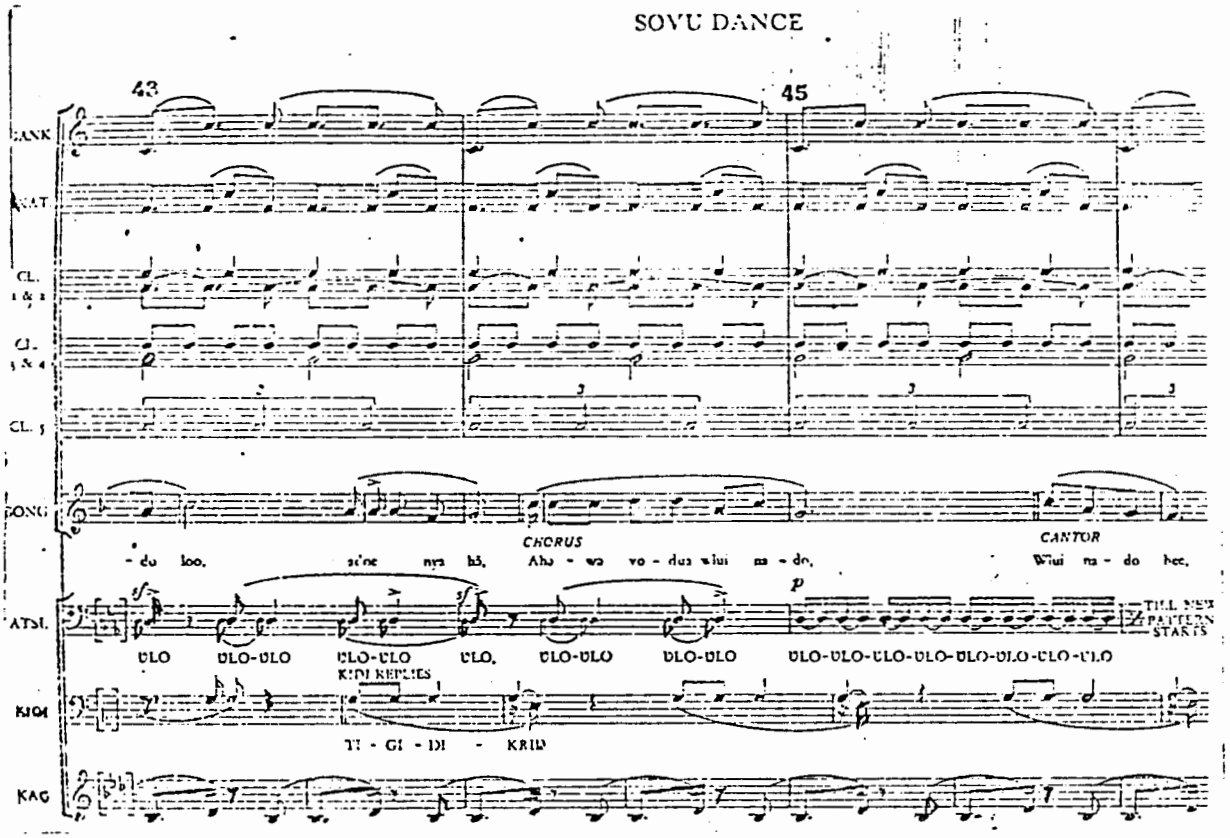


Figure 53 is an example of the use of these principles.

(65) H.Panteleoni: "Towards Understanding of the Play of the Atsimevu in Atsia", Ethnomusicology, 1972, Vol 16, pp. 1 - 20

Fig 53:



(66)

The Sovu belong to the Yeve cult of Ghana.

Gank: the double bell, the gankogui

Axat: the gourd rattle, the axatse

cl. 1 - 5: the clapping ensemble

Atsi: the atsimevu, the master drum

Kidi: the kidi, the drum which plays responses to the atsimevu

Kag: the kagan drum which reinforces the ostinato pattern of the bells and claps

The ostinato: The Gankogui plays a 3 + 3 + 2 pattern, in jazz is one of the ingredients of the samba rhythm. Clap 5 stands in a 3-against-2 relationship against clap 4. The kagan plays a pattern which reinforces the pattern of the axatse, hence supporting the whole ostinato.

The atsimuvu and the kidi: The astimevu plays rhythmic

(66) A.M.Jones: Studies in African Music, Vol 2, p. 89

figurations to the speech-association VLO - VLO to which the kidi replies TI - GI - DI.

The format of the whole ensemble is as follows: the bells and the claps play an ostinato, the kagan drum reinforces it, the atsimevu plays patterns which are improvizatory and the kidi provides responses to the atsimevu. This ensemble is therefore carefully structured and is representative of the creative skill of all the drumming ensembles in Africa.

A rhythmic analysis of an Anlo drumming ensemble is given in Chapter Three.

Drummers use speech-associations as mnemonics of the intricate patterns they have to play. All drumming ensembles are accompanied by dancing and the rhythms of the dance and the rhythms of the drums mutually influence each other.

4.6 CONCLUSION

To summarize the foregoing, the author wishes to emphasize that in spite of the variety of instruments to be found in Africa, there is common ground amongst them.

There is concern for variety of tone to ensure distinctiveness in ensembles. This is observable for example in drumming ensembles where the differing sounds of bells, drums and rattles are required to create the ensemble.

The use of tone-modifications, for example, the bottle tops on the mbira dzaVadzimu, is encountered so often that it can be considered to be a characteristic of African musical instruments. Buzzy membranes (mirlitons) are used on drums and xylophones to modify the tone.

Instruments can only be crafted from naturally sounding material obtained from the local environment. This is a contributing reason for the concentration of drums in countries such as Ghana and their almost complete absence in South Africa.

African musical instruments are not designed to sustain notes because sustained notes is not important to the African's approach to music. They mark the points of attack very definitely. This ensures very accurate rhythmic relationships within the cycle among the members of the ensemble.

Chapter Five

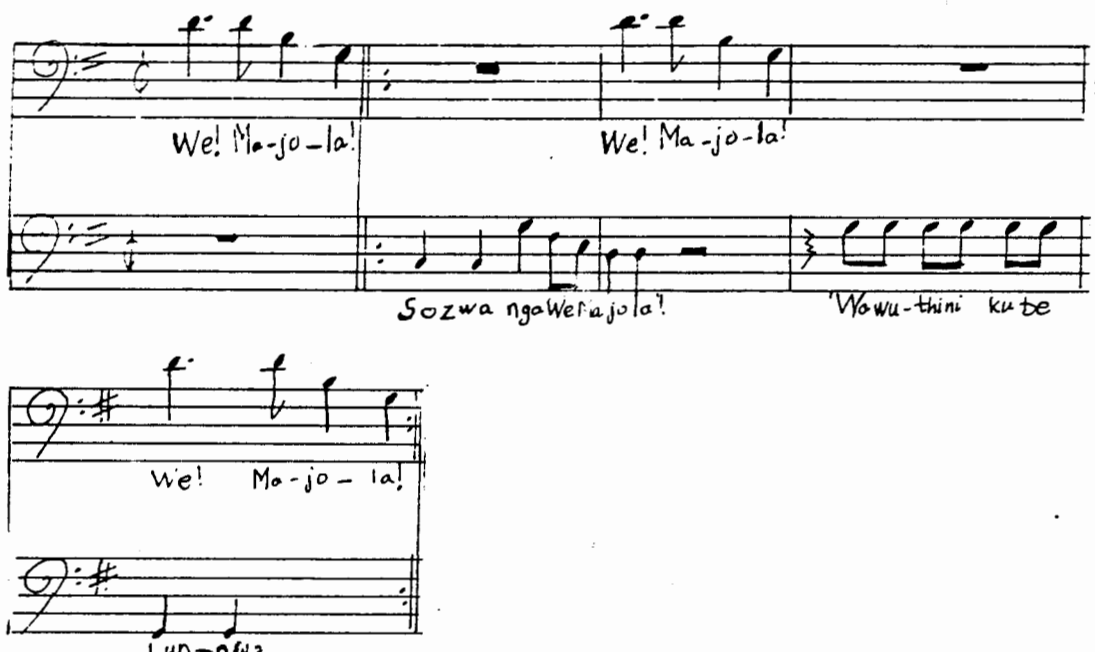
Form in African Music

THE CALL-AND-RESPONSE FORM

The call-and-response form is also known as the 'binary' or 'litany' form. However, the latter two terminologies do not imply what this form 'is', hence the author's choice of the former.

The Zulu work song, called "We Majola" is an example of the call-and-response form.

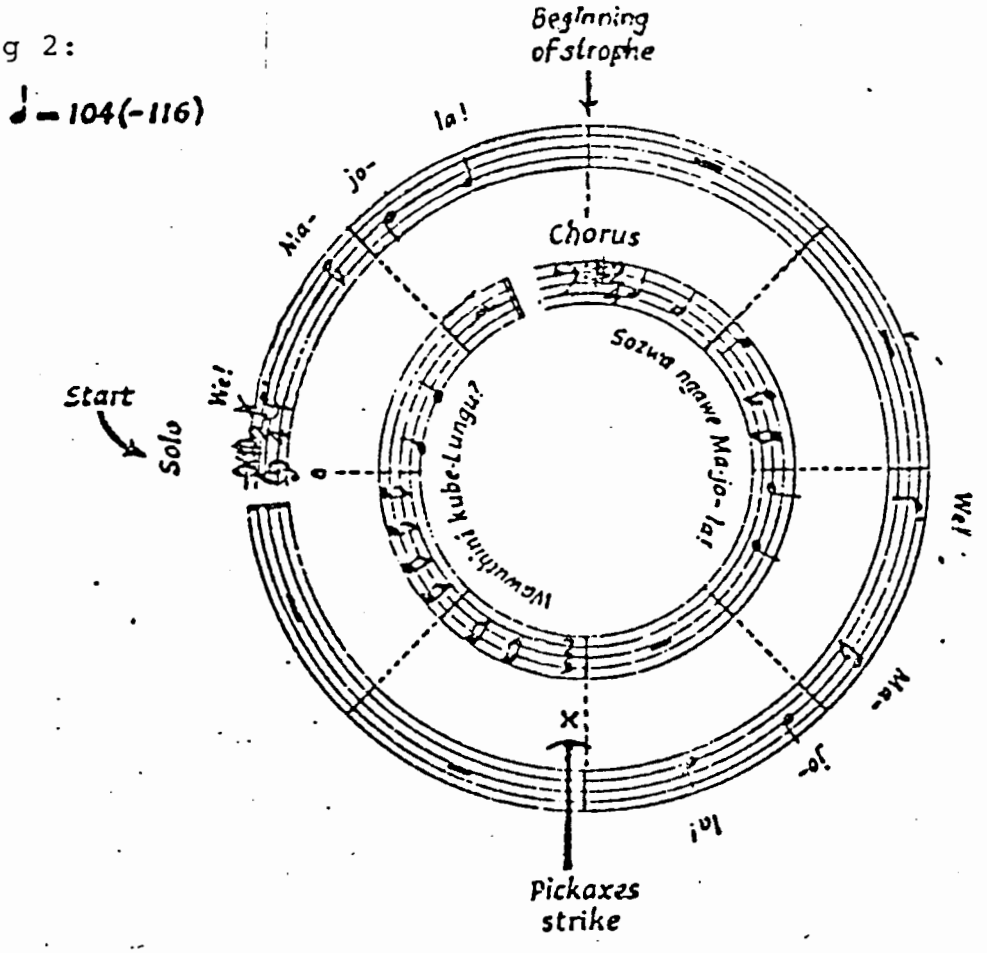
Fig 1: We Majola: Zulu Work song. Transcribed by D.Rycroft (See footnote (1))



Rycroft has devised a cyclic notation (as below) in order to illustrate the temporal relationship between the entries of the cantor and chorus and the cyclic nature of these song-types. (1) However, the author, realizing the difficulty involved when reading it, has resorted to the standard Western notation.

(1) See for example, D. Rycroft: "Nguni Vocal Polyphony", Journal of the International Folk Music Council, 1967, Vol 19, pp. 88 - 103

Fig 2:



The text-distribution is as follows:

(C = Cantor; CH = Chorus)

C: We! Majola!
CH: Sozwa ngawe Majola
C: We! Majola!
CH: Wawuthini kubelungu?

Translation:

Hey you, Majola!
Give an account of yourself.
Hey you, Majola!
What have you been saying about us to the white men?
(sic. foremen/supervisors)

In Fig 3(a) below, an overlap occurs between the end of the first chorus entry and the beginning of the second solo entry, i.e. Sozwa ngawe Majola
We! ...
resulting in harmony between the two parts. At this point the intervallic relationship between them is a perfect octave.

An overlap also occurs between the 'call' phrase and the last word "Lungu" of the second response phrase, resulting in an interval of an octave and a perfect fifth. (See Fig 3(b)).

Fig 3(a): (Third Bar)

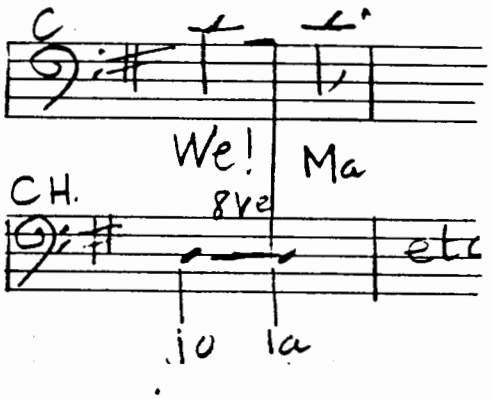
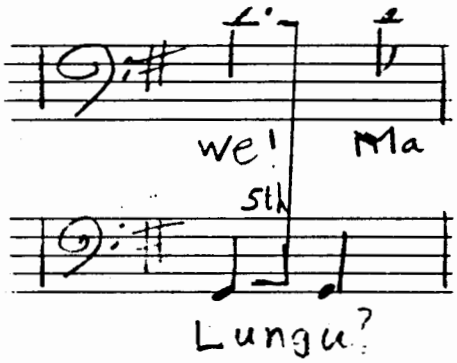


Fig 3(b): (First repeat of First Bar)



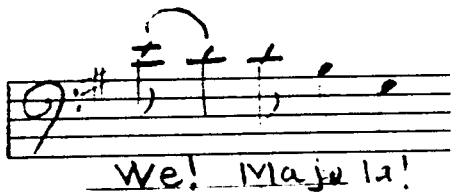
The rest before the second chorus entry, i.e. "wawuthini ..." has a functional purpose instead of just being an artistic silence. It allows the singers to swing down their pickaxes in a combined effort, or to perform the task at hand.

The overall downward melodic contour is also due to physical considerations - the body being put to work is expelling air, hence the accompanying downward contour.

This song, like any call-and-response song is sung an indefinite number of times until the cantor gives a gesture which can be a wink of the eye or a nod to signal the end.

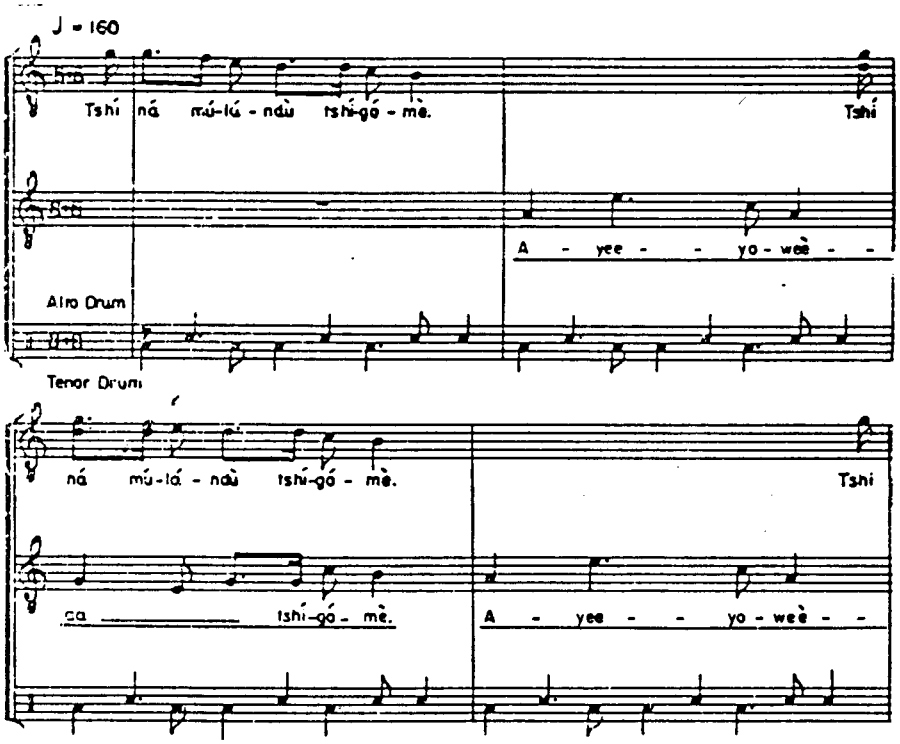
While the chorus melodic line remains constant, the cantor may inprovize upon his part to introduce the element of variation, as in Fig 4.

Fig 4:



The call-and-response form is found among all the African peoples in South Africa. The following example, sung by the Venda, is similar in many respects to "We Majola"

Fig 5:



(2)

(2) J.Blacking: "Tonal Organization in Venda Music", Ethnomusicology, January 1970, Vol XIV No 1, p. 42

THE CYCLICAL FORM

The cyclical form is an almost universal formal device in Africa. Examples of this can be found in bow music; harp music; kundi harp music; amadinda music and mbira music, as discussed in Chapter 4. In the case of the bow, the kundi and the mbira, vocal improvization takes place above the ostinato accompaniment, which provides a framework for elaboration.

The African never finds the cycle boring, no matter how often he repeats it because he can either interact with it through movement and singing and/or introduce subtle variations on his instrument. He can also apply various aural frameworks to it, so that the same piece can sound in many different ways. The kundi player for example, can listen to his right hand melody, then switch his attention to his left hand melody, then listen to the inherent melodies produced by their combination. He can listen to someone else's part and stand outside of what he is doing.

Recorded amadinda tunes often sound remarkably different from the same tunes played 'live', the reason being that the so-called heard image(3) i.e. what the listener hears (this is not the same as what is being played), which is generated by such factors as the position of the listener in relation to the performers, even the direction of the wind, is an important variable. The cycles, however, always remain the same. Cyclic repetition leads to self-identification with the music; it brings about perfection, and it causes an intense level of awareness by the participants of musical relationships within the cycle. This vertical concept of form is not shared by the Westerner, who finds variety horizontally, e.g. through the introduction of contrasting phrases and keys.

(3) G. Kubik: "The Phenomenon of Inherent Rhythms in East and Central African Instrumental Music", African Music, 1962, Vol 3 No 1 pp 33-42.

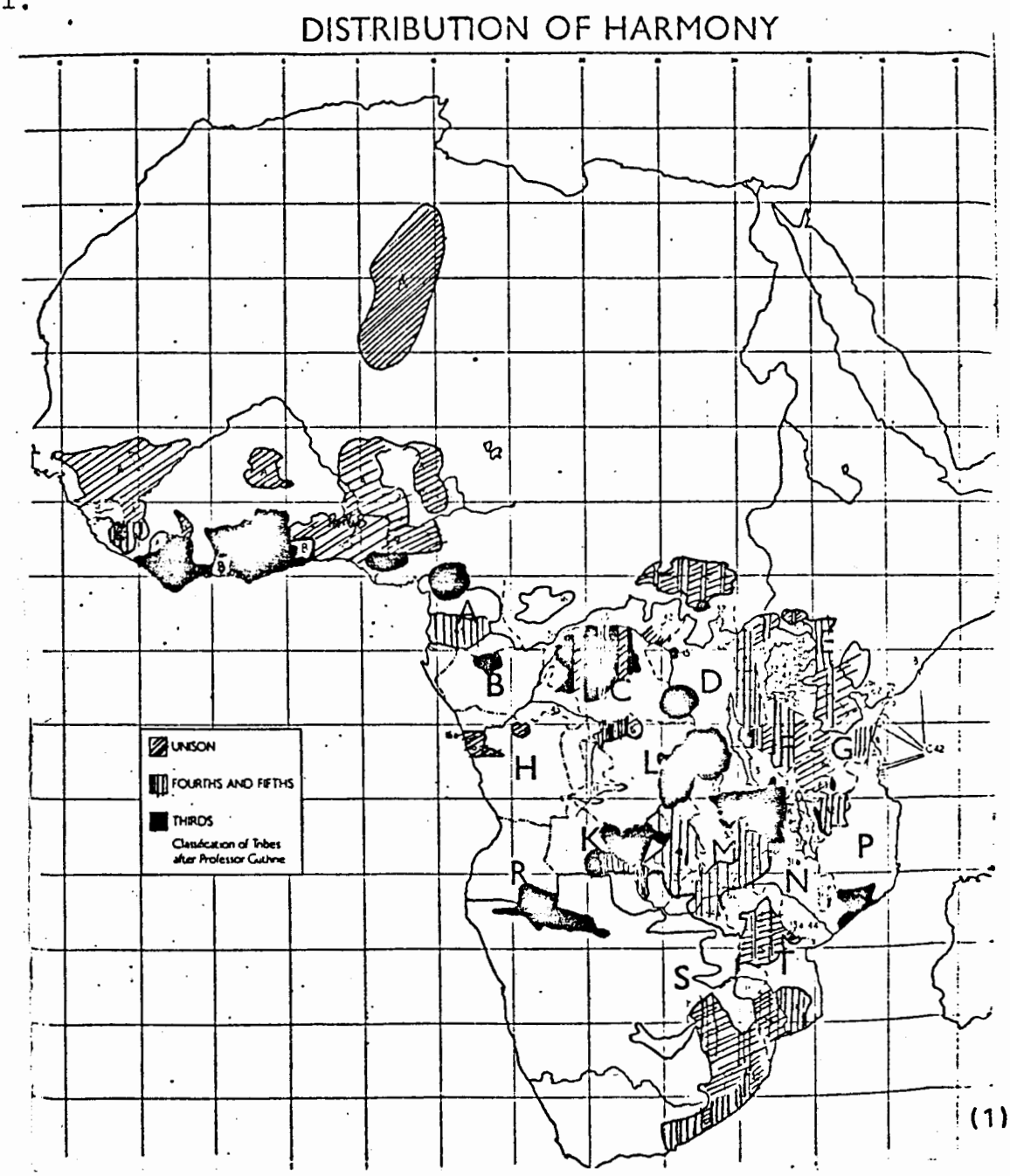
This variable nature of much of African music defies the sophistication of recording apparatus and even the most accurate transcriptions. It presents two direct challenges to the Western researcher: to come into first-hand contact with the music, and so doing, to become more African in his approach to African music.

Chapter Six

Harmony in African Music

The Western harmonic system is based on the triads, i.e. the combination of major and minor thirds. Although thirds do occur in traditional African music, fourths and fifths are equally, if not more, important. Urban African music has been and continues to be influenced by the West.

Jones classified Africa into 'harmonic areas' according to Professor Guthrie's language classification (1) as in Fig 1.



(1)

In this chapter the use of harmony in countries other than South Africa will be discussed first, in order to present a general picture, then follows a discussion of the harmonic usage of the Nguni peoples with reference to musical examples.

THE SKIPPING PRINCIPLE

Many African communities harmonize a given note by the next note but one in their particular scales. The harmonic result depends almost entirely on the scale used, fourths in some cases, thirds in others or a combination of fourths and thirds. The use of the skipping principle can be found in Tanzania, Malawi, Angola, Zambia, Zaire and South Africa.

Fig 2(a) represents the tetratonic, i.e. 4-note, scale, used by the Tswana pipe ensemble of Botswana. Fig 2(b) represents the chords obtained, resulting from the skipping principle.

Fig 2(a)

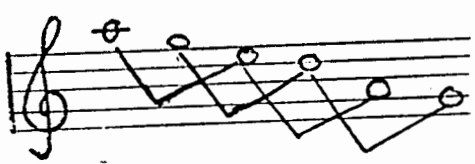
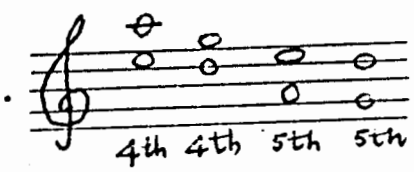


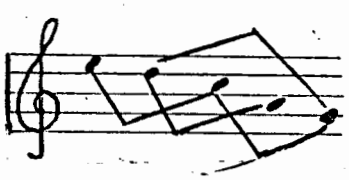
Fig 2(b)



(2)

The example below (Fig 3(c)) is a Zairean song played to the accompaniment of the kundi harp, which is tuned pentatonically, as in Fig 3(a). The harp chording is derived from the skipping principle, as in Fig 3(b).

Fig 3(a): Pentatonic tuning of kundi harp



(2) C.Ballantine: "The Polyrhythmic Foundation of a Tswana Pipe Melody", African Music, 1965, Vol 3 No 4, p. 52

Fig 3(b)

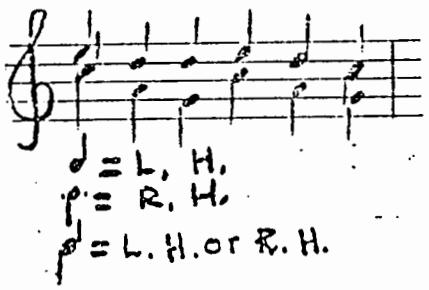
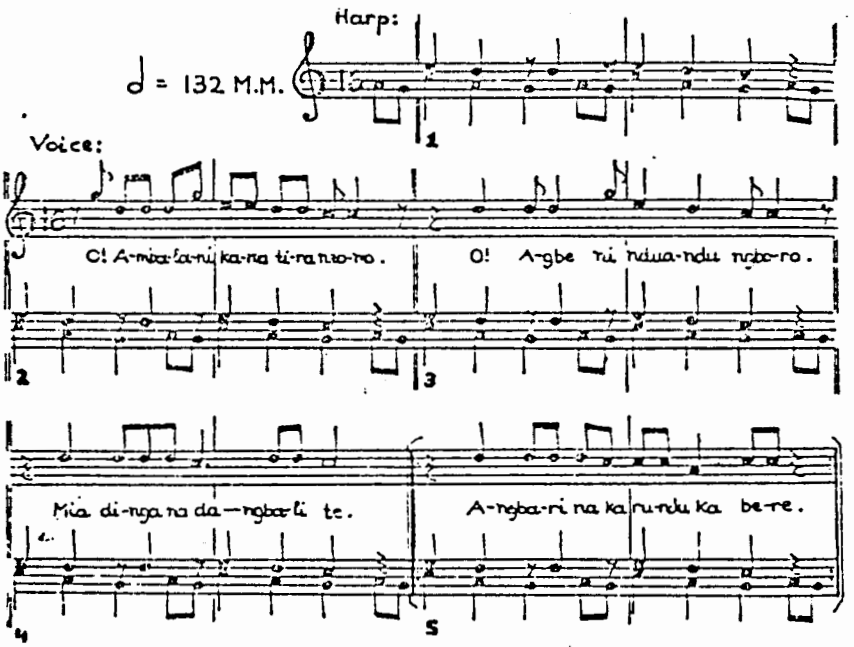


Fig 3(c)"Agbe Ni Nduando Ngboro", Azande, Zaire.



(3)

This song is in cyclic form, and the length of the cycle, which is repeated indefinitely, is sixteen quavers. The voice part does not add any extra harmony note, because it must stem from the harp part. Concerning this Kubik says: "Practically every note in the voice part is represented by the same note in the instrumental part." (4)

Each chord in the harp part has a function in relation in relation to the cycle and if shifted to another spot, can change the whole character of the cycle. Each chord is therefore one of the organizing frameworks of the cycle, along with rhythm and melody, because it provides shape,

(3) G.Kubik: "Harp Music of the Azande", African Music, 1964, Vol 3, No 3, p. 64
(4) ibid., p. 56

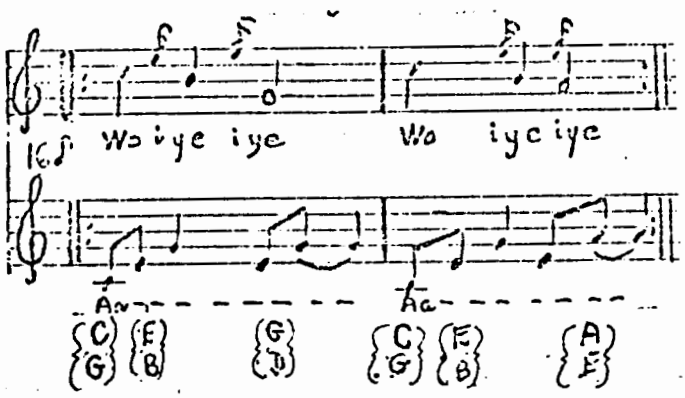
tension and release and influences the vocal melody. (5)

THE SHONA HARMONIC SYSTEM

The Shona (Zimbabwe) have a rather unique harmonic system which will be briefly discussed here.

The Shona have one of the most organized harmonic systems in Africa. It is based upon the simple C E G/C E A chord sequence found on the small mbira-type instrument, called 'karimba'. This simple tune illustrates the use of these sequences: (Note: C E G should be construed as C + G, E + B and G + D, i.e. the note and its fifth. The same applies to F A D and F A C)).

Fig 4:



(6)

The bigger mbira-types, such as the mbira dzaVadzimu have the expansion of this C E G/C E A sequence, namely C E G/C E A/ C F A/D F A. A. Tracey regards this as the "standard" mbira sequence because it can be found from Venda (R.S.A.) to Nyungwe (Mozambique). (7) The "standard" sequence can be regarded as a statement of the C E G/C E A sequence together with a contrasting statement a fourth higher, namely, F A C/ F A D, but with the two halves reversed to F A D/F A C. A. Tracey explains that the final C of F A C elides with the first C of C E G, and an extra C is inserted to replace it in between the two halves.

C E G C E A C F A D F A (C) (8)

This now becomes the "standard" sequence C E G/C E A/C F A/D F A.

(5) A. Tracey: personal communication
(6) idem: "Harmonic Movement in Shona and Chopi Music", Paper presented at the Ethomusicology Conference, Rhodes University, October 1980
(7) A.Tracey: "The Matepe Mbira Music of Rhodesia", African Music, 1969, Vol 4 No 3, p. 41
(8) ibid., p. 42

The "standard" sequence can be represented as follows:

Fig 5: (to be read across)

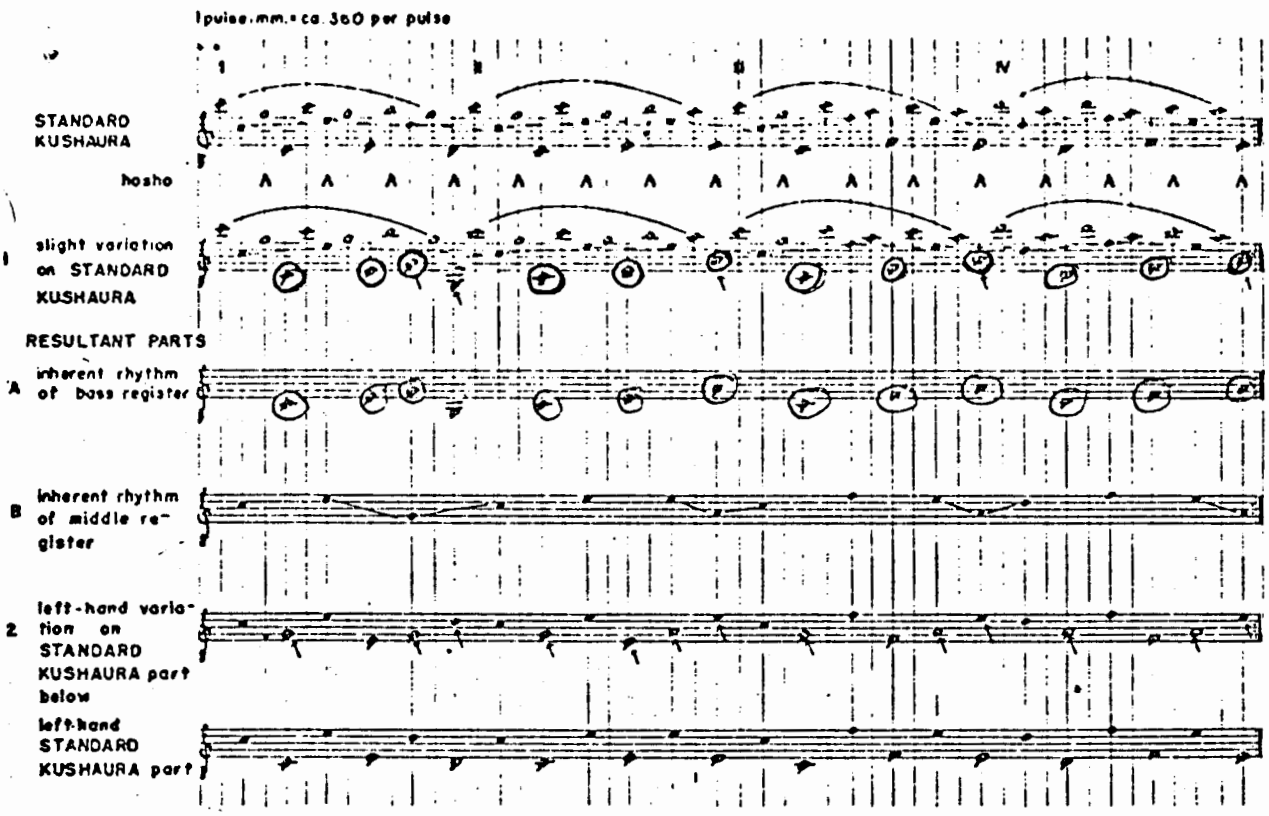
(1)	C	C	C	D
(2)	E	E	F	F
(3)	G	A	A	A

(9)

When one looks at these sequences in the manner described above, the notes C C C D which start each quarter of the tune, give rise to upward/downward movement by step. The 2nd and 3rd chords of each quarter also move up by a semitone (in the case of the 2nd chord) and a tone (in the case of the 3rd). This kind of movement corresponds with the general South African tendency of harmonic movement to alternate up and down by a tone or semitone.(10)

The piece below, for the mbira dzaVadzimu, illustrates the use of these sequences:

Fig 6: (Notes have been circled by the author.)



Nhemamusasa Variations: Kushaura KwePamusoro NePasi

(11)

The circled notes clearly indicate the standard chord progression to be found in Shona music.

(9) ibid., p. 41
(10) A. Tracey: "Harmonic Movement in Shona and Chopi Music"
(11) P. Berliner: The Soul of Mbira, p. 99

Recorded examples of mbira music can be found on: Sound of Africa Series: TR 85; 91; 172; 174; 175; 176; 205; 211; 212; 213.

HARMONIC PRACTICE IN SOUTH AFRICA

Traditional harmonic practice in South Africa does not differ very much from the Shona system, as illustrated in Fig 5.

Nguni harmony is based on the shifting tonality of bow-playing. All bows, whether the ugubhu, uhadi or umakhweyana, have provision for altering the fundamental tone, as described in Chapter 4. Although bow-playing has totally disappeared in urban communities, the traditional songs which they sing have a tonality akin to that found on the bow, as in Fig 9.

The guitar is virtually a bow substitute among the Nguni, because all the principles of bow-playing have been transferred to this instrument. This will be discussed after the section on bow-playing.

The author will now show how the Xhosa song in Fig 8, although not sung to bow accompaniment, is influenced by bow tonality. Rycroft has observed that much of Nguni vocal music, although not accompanied by the bow, is influenced by bow tonality. (12)

In Xhosa bow-playing the roots lie approximately a whole tone apart, as discussed in Chapter 4, i.e.:

Fig 7:

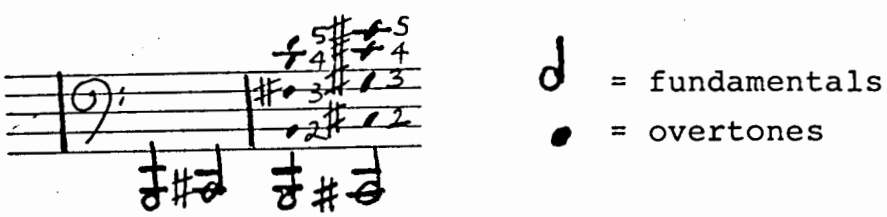
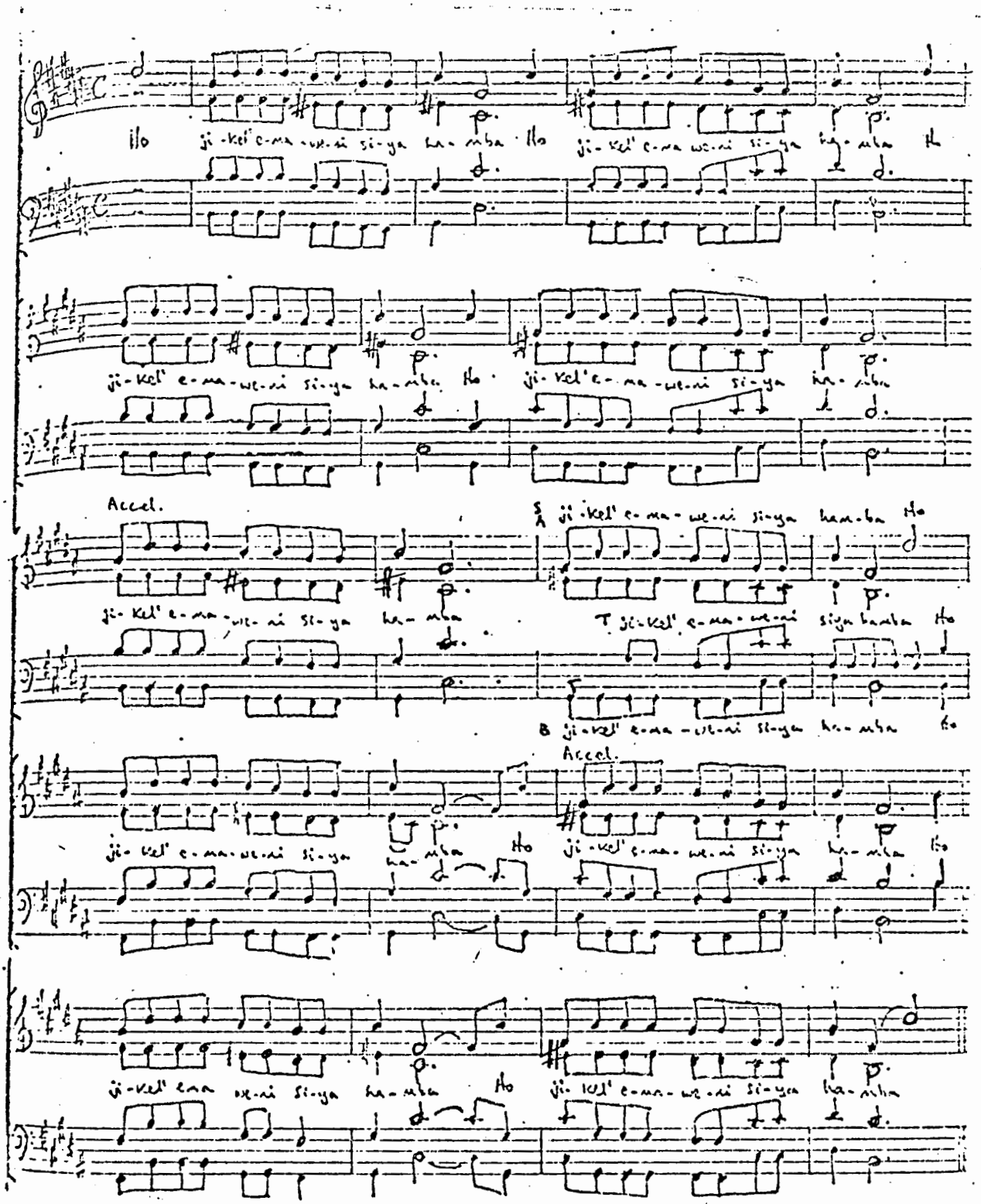


Fig 8 below, called Jikel' Emaweni, will now be analysed harmonically:

(12) See. for example: D. Rycroft: "Nguni Vocal Polyphony", Journal of the International Folk Music Council, No 19, 1967.

Fig 8: Jikel 'Emaweni, a Xhosa song



(13)

(13) J.Williams and P.Maselwa: African Folk Song, p. 5

HARMONIC ANALYSIS OF JIKEL'EMAWENI

On first examination, the harmony of this song looks very Western, especially the four-part texture, but, on closer examination, it is actually very African. The form is African because the four-bar phrase is repeated until the end, with the feeling of cadence in the second and fourth bars of each cycle.

Its most striking characteristic is its shifting tonality around the two roots, B and C sharp, which conforms to the Xhosa bow harmonic principle of the roots lying approximately a whole tone apart.

The sharpened third of the chord on the third beat of the first bar does not come about as a result of a 'harmonic rule', but rather as a result of a physical principle, because it is based on the harmonic series arising from the practice of playing the uhadi, the traditional Xhosa bow. It is analogous to the principle of bow-playing, where it is the third partial of the harmonic series where C sharp is the root. G sharp is the fifth partial.

The Xhosa understanding of chords is based upon the awareness of the fundamental together with its own set of harmonics and is never confused with the harmonics of another fundamental. This is similar to Western understanding of chords.

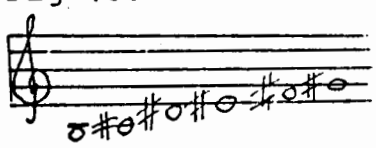
The tonality can be represented as follows:

Fig 9:

fundamental	partials		
B	F♯	B	D♯
C♯	G♯	C♯	E♯
1	3	4	5

This can be represented in the following scale series:

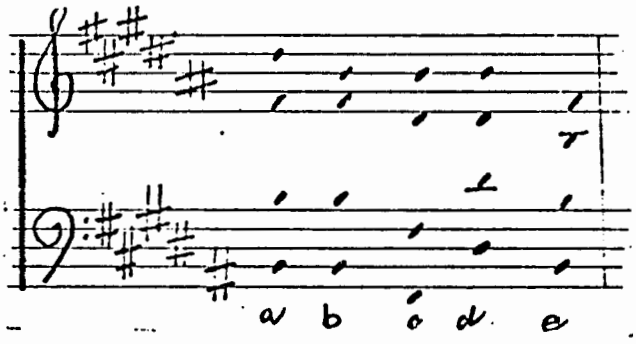
Fig 10:



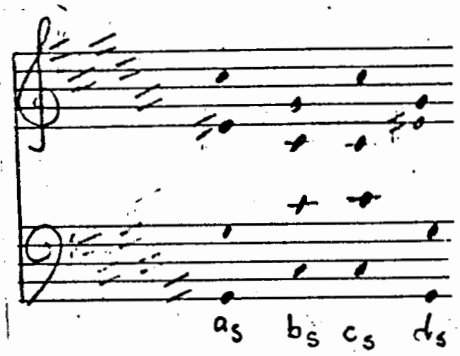
Because this scale contains six notes with a semitone between the 4th and 5th degrees, it can be described as a hemitonic hexa scale.

Rycroft would describe the shifting tonality as bi-radical, because it is based on the two roots, B and C sharp. (14) According to his nomenclature, B is the principal root while C sharp is the subsidiary. The whole song is structured around these two root-progressions in various inversions. The chords based on the principal root (note B) appear in the song as follows:

Fig 11:



c and d, their lowest notes being F sharp and D sharp respectively, represent the bow technique of opening the gourd away from the player's chest to amplify these partials.
The chords based upon the subsidiary root appear as follows:
Fig 12: (Subscript 's' stands for 'subsidiary'.)*



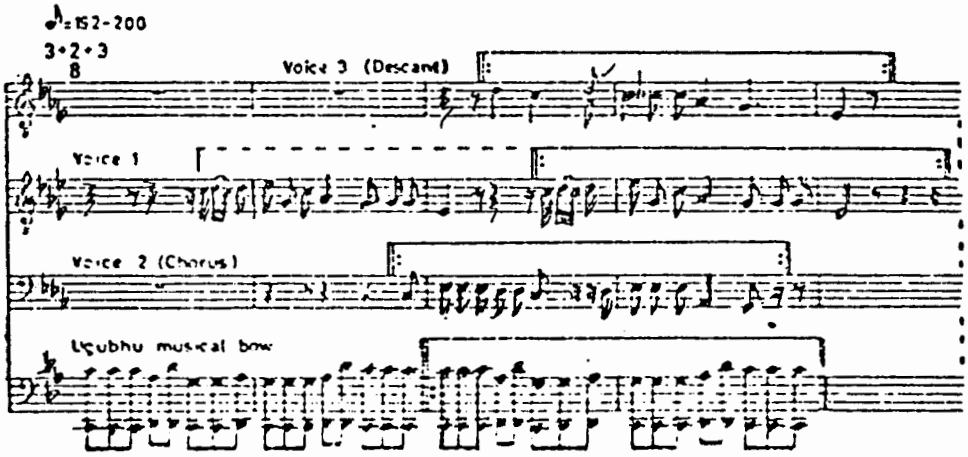
HARMONIC ANALYSIS OF A TRADITIONAL ZULU SONG

The Zulu song (Fig 15) which is traditionally played on the ugubhu bow, will now be analyzed:

(14) D. Rycroft: op. cit., pp. 88 - 103

* This song has the lower fundamental as the principal root. This does not apply to all traditional Xhosa songs because some of them have the upper fundamental as the principal root.

Fig 13:



(18)

As was mentioned in Chapter 4, the ugubhu bow is virtually extinct, Princess Magogo being the only known player.

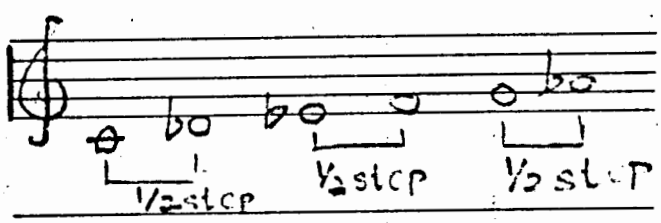
The song above has a tonality which is based upon the two fundamentals, namely C and D flat. It is therefore a ceremonial song, because these are the only Zulu song-types which have the roots a semitone apart. Fig 16 below represents the tonality.

Fig 16:

fundamental	partials		
C	G	C	E♭
D flat	A flat	D flat	F
	3	4	5

As a scale, it can be represented as follows:

Fig 14:

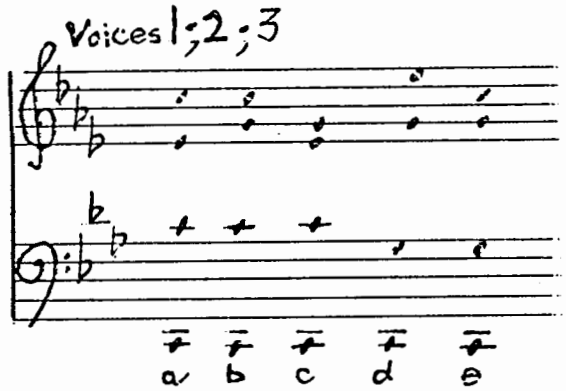


Like the Xhosa scale, it is also a hemitonic hexa scale, but highly chromatic. The chords based upon the principal root

(18) D. Rycroft: "Nguni Vocal Polyphony", Journal of the International Folk Music Council, Vol 19, 1967, p. 97.

appear as follows:

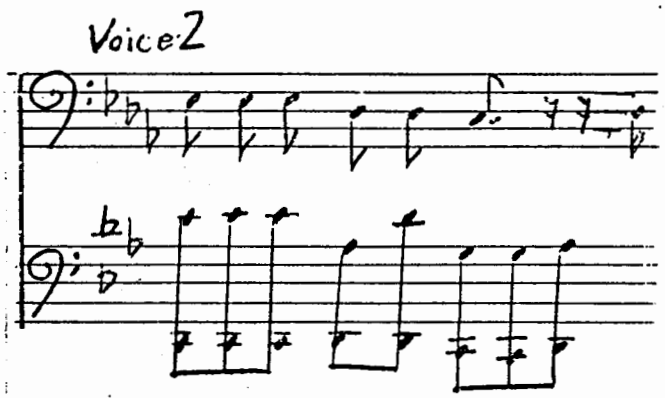
Fig 15:



The high bow notes represent the 3rd (G) and 4th (C) partials; the 5th partial (E flat) is never used in the bow part, but it does appear in one or more of the vocal parts. The voices do not strictly follow the harmony produced by the bow but sing in a gliding, or parlando style.

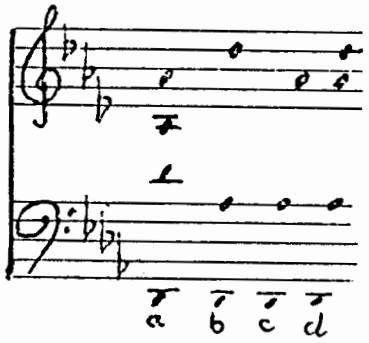
In the first bar, voice 1 sings an appogiatura D, which soon resolves to a C, which appears in the bow harmony as the fundamental. Voice 2 follows the bow harmony very closely, as in Fig 19.

Fig 16:



The chords based on the subsidiary root appear as follows:

Fig 17:



The 3rd partial is absent in both the bow and the vocal parts.

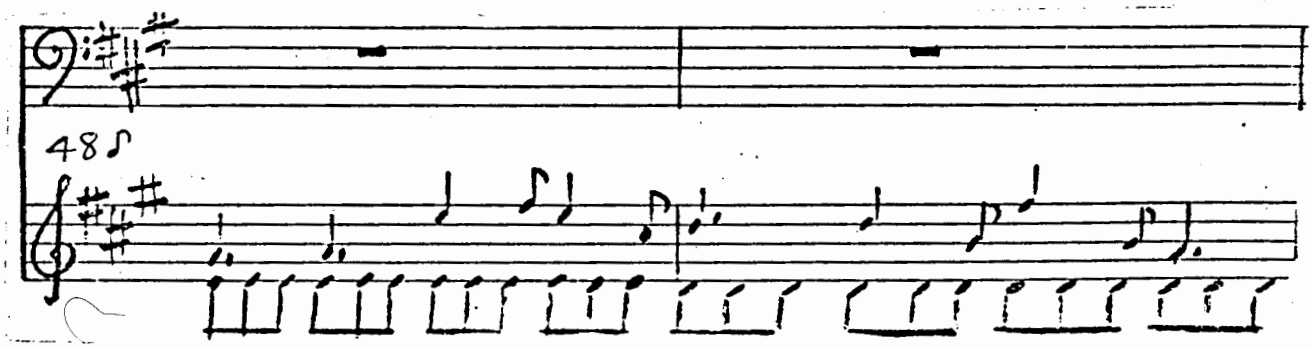
The form is clearly cyclic call-and-response form (see Chapter 5) with the characteristic overlapping between the vocal parts resulting in polyphony.

Guitar Harmony - Its Similarity to Bow Practice

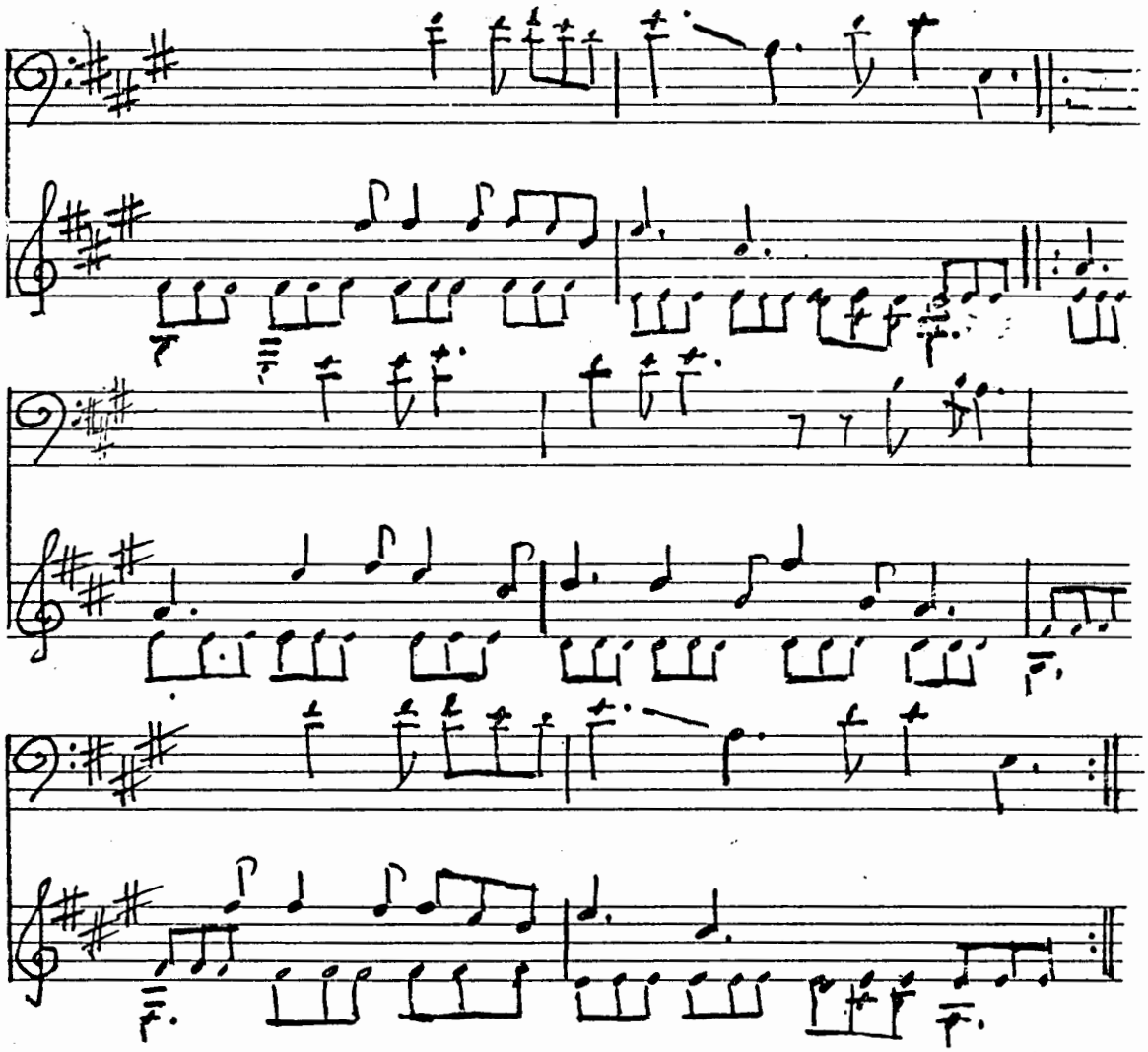
The guitar became adapted by indigenous South African peoples ever since the Portuguese explorations. According to Kirby, the ramkie is possibly the earliest adaptation of the guitar because it was adapted from the Portuguese rabequinha. (19)

On the guitar, the Zulus developed a wholly distinctive and compelling style, not dissimilar from their style of playing the bow. Whereas the bow player only plays a condensed version of the chorus part (Cf. Rycroft) the guitarist plays the chorus part with his thumb while he uses his other fingers to play more parts.

Fig 18:

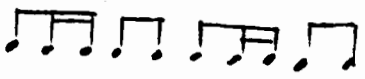


(19) P.R.Kirby: The Musical Instruments of the Native Races of S.A., p. 142



(20)

The quaver rhythmic figures in the guitar part are derived from the technique of bow-playing. The harmonic roots oscillate between E, which is the principal root, D the lower subsidiary root and F sharp, the upper subsidiary root. The vocal part is staggered from the guitar parts similar to the voice-bow relationship in Fig 21. With each cyclic repetition of the guitar part the performer is free to improvize upon the basic melodic pattern.

Guitarists who play in this style also develop the repetitive quaver ostinato into 

and other interesting variants.

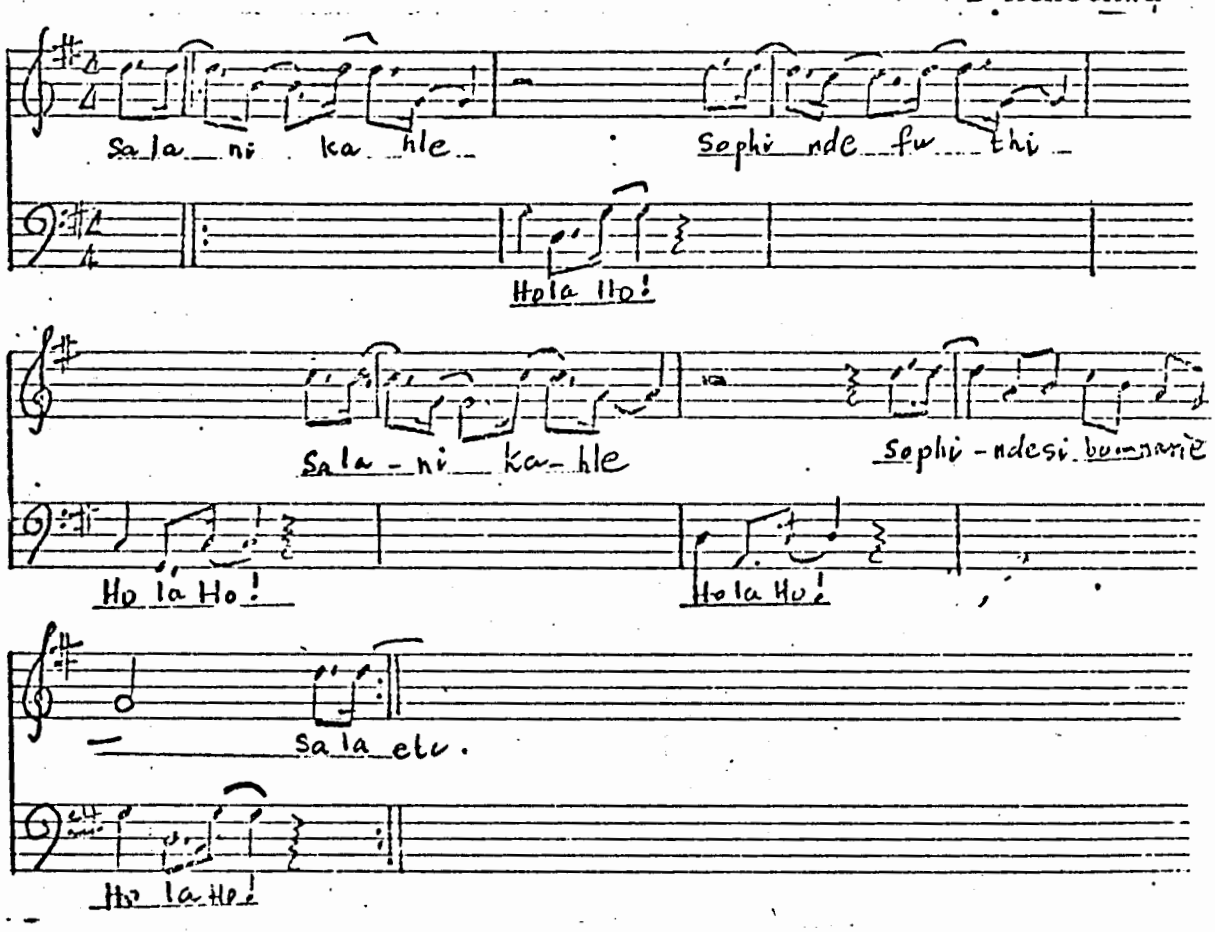
(20) J.Clegg: "The Music of the Zulu Migrant Workers; Focus on the Guitar and Concentina", Ethnomusicology Conference, Grahamstown, 1980, song transcribed from a tape-recording by the author.

MISSIONARY INFLUENCE ON TRADITIONAL HARMONIC USAGE

The influence of the missionaries in South Africa adversely affected the traditional harmonic practice of the Nguni. Of missionary influence, D. Hansen says that their musical changes were far reaching because they forced their converts to sing hymns with a prescribed bass part and the dominant melody contained in the soprano part. This runs counter to traditional Nguni music because they harmonize freely and because they use free melodic embellishment. (21)

The hymn then became adapted to suit activities other than worship because African music became prohibited by the church. The mbhóloho type of Zulu song is adapted from Wesleyan hymn tunes, and the use of the primary triads is evident in all of these, in various combinations, but the I-IV-V-I progression remains the most popular:

Fig 19 : Salani Kahle: Zulu children's game song. Transcribed by B Mthethwa

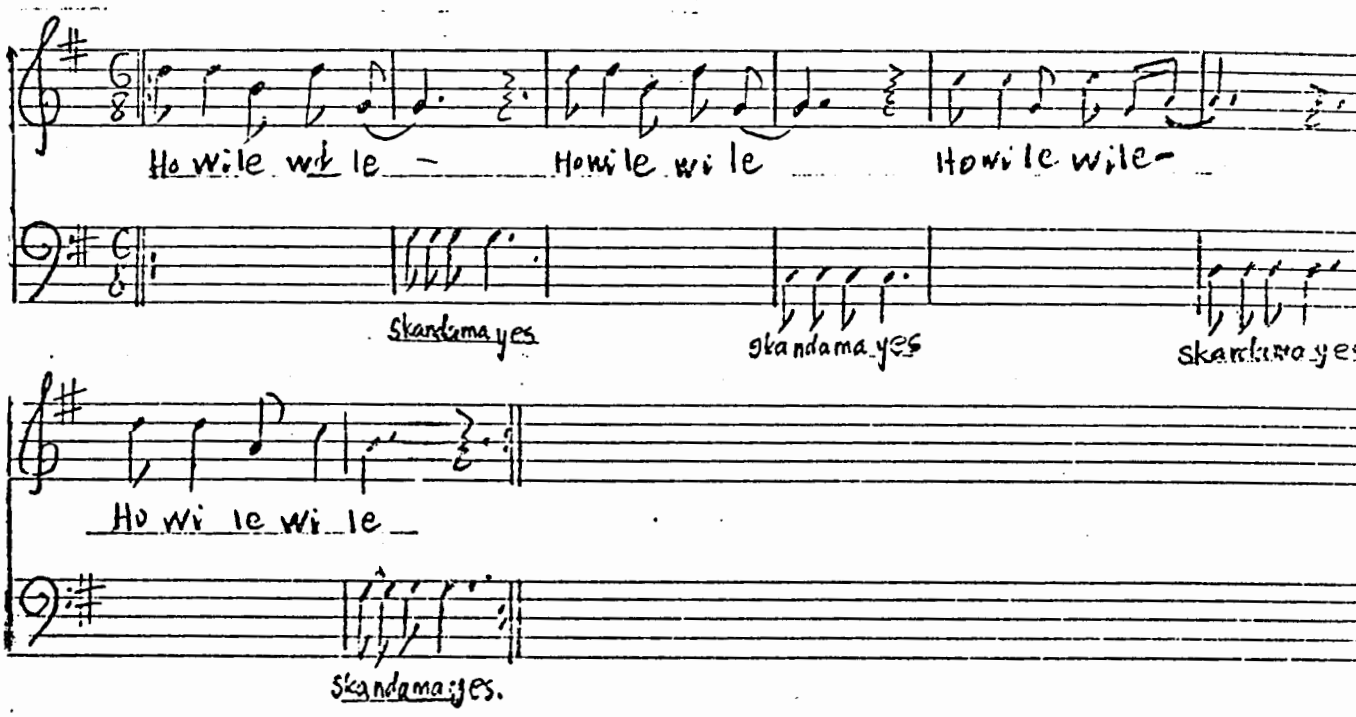


(22)

(21) D.Hansen: The Life and Works of B.Tyamzashe
(22) B.Mthethwa: "Zulu Folk Song, History Nature and Classroom Potential", B. Mus. Thesis, University of Natal, Song Appendix No C

Here is a Xhosa example which uses the same harmonic sequence:

Fig 23:



(23)

The word "skandamayes" is derived from "kandamayeza", which means "to beat the medicine", i.e. to "crush the herbs". The first "s" of "skandamayes" is used for emphasis while, the last syllable, "yes", is an abbreviation of either (i) si = we (in English), or (ii) isi- = a noun class prefix.
"Howilewile" is an onomatopoeic word with no meaning in spoken Xhosa.

A SYNTHESIS OF THE SALIENT FEATURES OF NGUNI HARMONY

From the above discussion of South African Nguni harmony, certain key harmonic features thereof can be extracted.

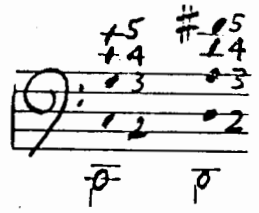
Nguni harmony is based on the harmonic series above a fundamental as expressed in the practice of bow-playing. Bow-tonality usually oscillates between two fundamentals (harmonic roots) which lie approximately a tone or semitone apart. (Certain bow-songs, especially umakweyana bow-songs, have a third fundamental. (See Ch. 4)). Each harmonic root has its concomitant harmonic series and Nguni understanding of harmony is based on these harmonic groups.

(23) As sung by L. Piet.

The harmonic movement is approximately a whole tone in Xhosa music, and in Zulu music, a semitone on the ugubhu and a whole tone on the umakweyana. (See Fig 20(a) and (b)). In Xhosa and Zulu music either the upper or lower harmonic root can be the key. (See Ch. 4).

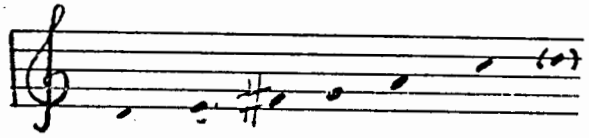
Fig 20(a)

Xhosa bow-tonality

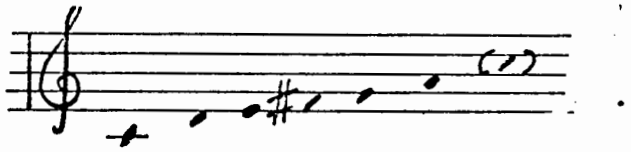


ρ = fundamental
• = harmonics

Top root as key note.



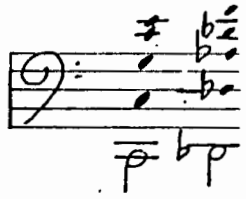
Bottom root as key note.



Xhosa vocal tonality normally follows the hexatonic scales above very closely, and thus the tonality of the bow.

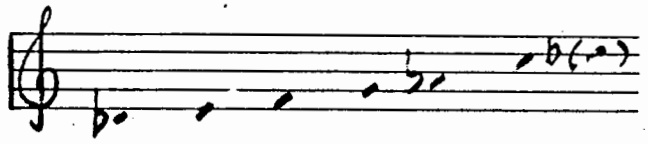
Fig 20(b)

Zulu bow-tonality

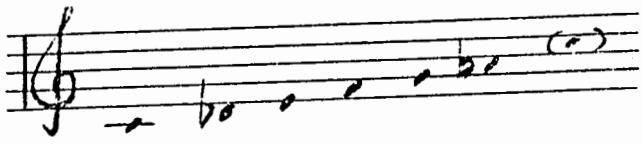


ρ = fundamentals
• = harmonics

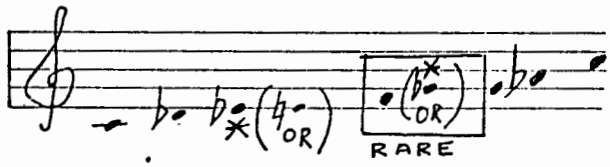
Top root as key note.



Bottom root as key note



Zulu vocal tonality based on the ugubhu does not follow ugubhu tonality as closely as Xhosa vocal tonality follows uhadi tonality. The notes of the Zulu ugubhu vocal scale are (two of them do not occur in the ugubhu vocal scale):



The asterisks indicate non-bow notes.

The flattened or raised 3rd degree of this vocal scale "occurs in free distribution, at the whim of the singer" (24). Rycroft only came across a few ugubhu songs (as sung by Princess Magogo) which use more than 5 notes in the vocal part. When a 6th note does occur, it is either the 4th or the flattened 5th degree of the ugubhu scale with the bottom root as the key note (here F or G flat).

Fifths and their inversions, fourths, are very characteristic intervals of Nguni music, although thirds do occur. This is an important difference between Nguni and Western harmony because the latter is based on thirds and the triads which are built up from them. The parallel movement of harmonic roots generates parallel movement in the harmonics. This African "organum" was noted by Kirby as early as 1930. (25)

A Tracey has informed the author that at times the tonality used in the vocal part is clearly influenced by the "skipping principle" (discussed earlier), and not by the tonality of the bow. This makes note-combinations such as C-F (with C as the fundamental) possible, instead of C-G (with C as the fundamental and G as the second harmonic).

(24) D. Rycroft: "The Zulu Bow Songs of Princess Magogo" African Music, Vol. 5, No. 4, p.64.

(25) P.R. Kirby: "A Study of Negro Harmony", Musical Quarterly, 1930, pp. 405-413.

CONCLUSION

In Africa harmony is also functional, as in Western music, but each chord has a function in the cycle.

It has been observed how instrumental harmony influences vocal harmony, even when there is a complete absence of the instrument itself within a community. This was found to be a characteristic particularly in Nguni music.

Parallelism and contrary motion come about rather as a result of the tonal requirements of African languages than as harmonic "rules".

In closing, the author wishes to echo the question posed by Kirby: "Since the principles of part progression ... are completely dependent on physical laws, may not the same physical laws have controlled those of medieval contrapuntalists in the early days of the art?" (26)

(26) P.R.Kirby: The Musical Instruments of the Native Races of South Africa, p. 160

PART II

Chapter Seven

Orff- Schulwerk and African Music: A Comparison

INTRODUCTION

Carl Orff (born 1895) is principally known as a composer in the music world. Because of his strong interest in music education he started formulating his educational ideas since the early 1930's when he founded the Güntherschule with Dorothea Günther, who was a gymnast and dance teacher. To understand Orff-Schulwerk it seems best to examine Orff first as a composer then as a music educationist, because his educational ideas find their fountainhead in his compositions.

Orff's music has a very basic sound, because he uses small forms, diatonic harmony and very little counterpoint. He achieved international recognition for his use of the ostinato in his works.

This simplicity also forms the hallmark of Orff-Schulwerk, which Orff calls "elemental music", and his use of the word elemental stems directly from the Latin 'elementarius', meaning: pertaining to the elements, primeval, rudimentary. (1) Orff-Schulwerk therefore deals with the first principles of music, namely rhythm, melody, speech and movement.

A few musical elements in his compositions together with the use of these elements in Orff-Schulwerk will be discussed below.

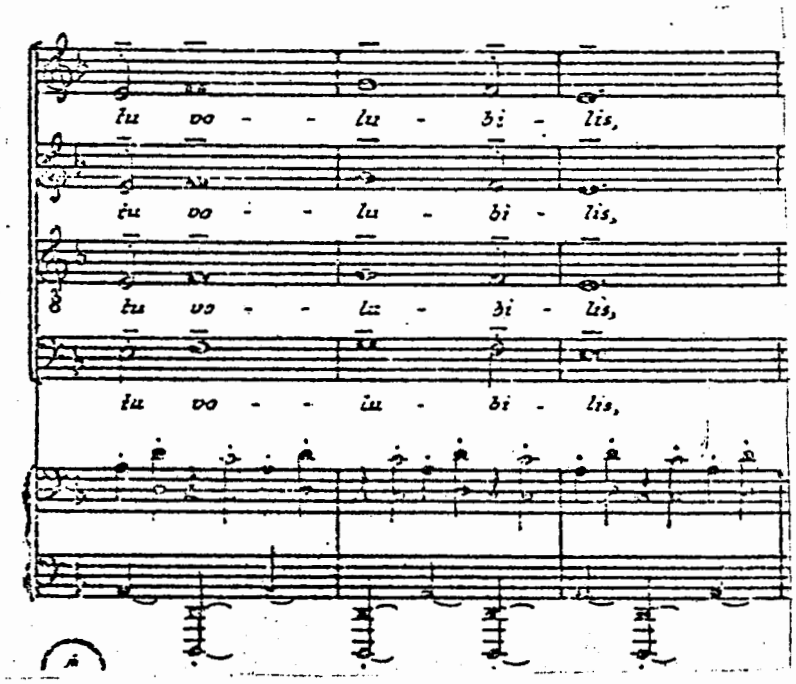
ORFF'S USE OF THE OSTINATO

In His Compositions

In compositions such as Carmina Burana, a scenic cantata for voices and orchestra based on Thirteenth Century Latin poetry, his chief involvement is with the ostinato and with rhythm. In the opening number, "O Fortuna", the melody fluctuates almost wholly between three notes: e, f and g. The syncopated rhythm and the low ostinato figuration provide the chief interest. (See Figure 1.)

(1) Cassell's Latin Dictionary

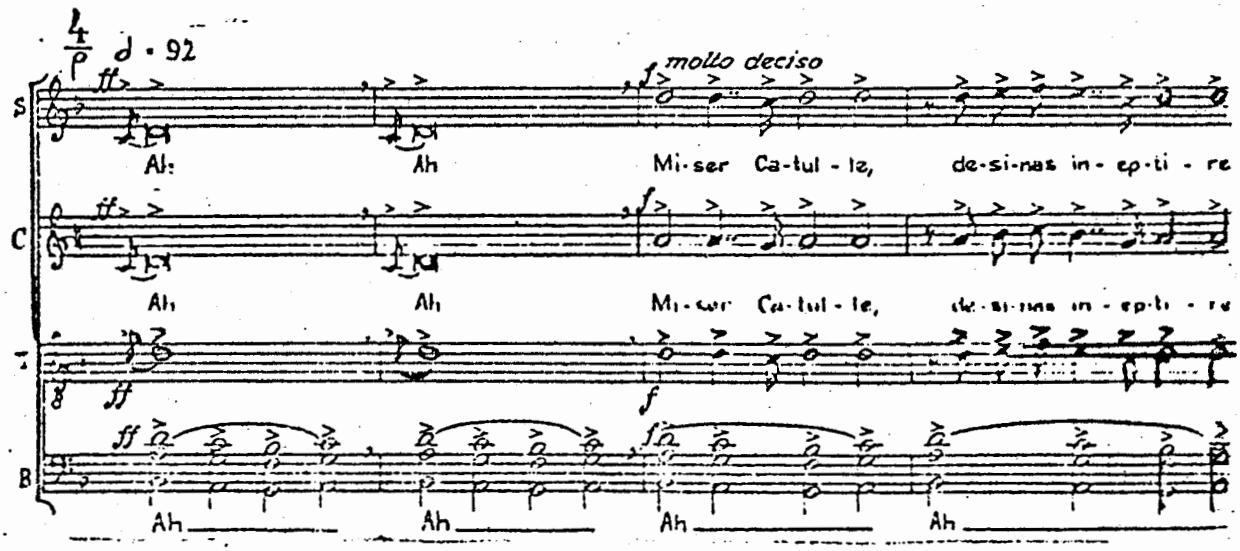
Fig 1: O Fortuna, bars 18 - 19 (Schott Edition, p. 2)



The ostinato accompaniment also features strongly in his other compositions, for example, Catulli Carmina, also a scenic cantata based upon the poems of Catullus.

Fig 2: (Schott Edition, p. 64)

XI *Inter amatores ac meretrices ambulantes Catullus solam identidem petit Lesbiam.*

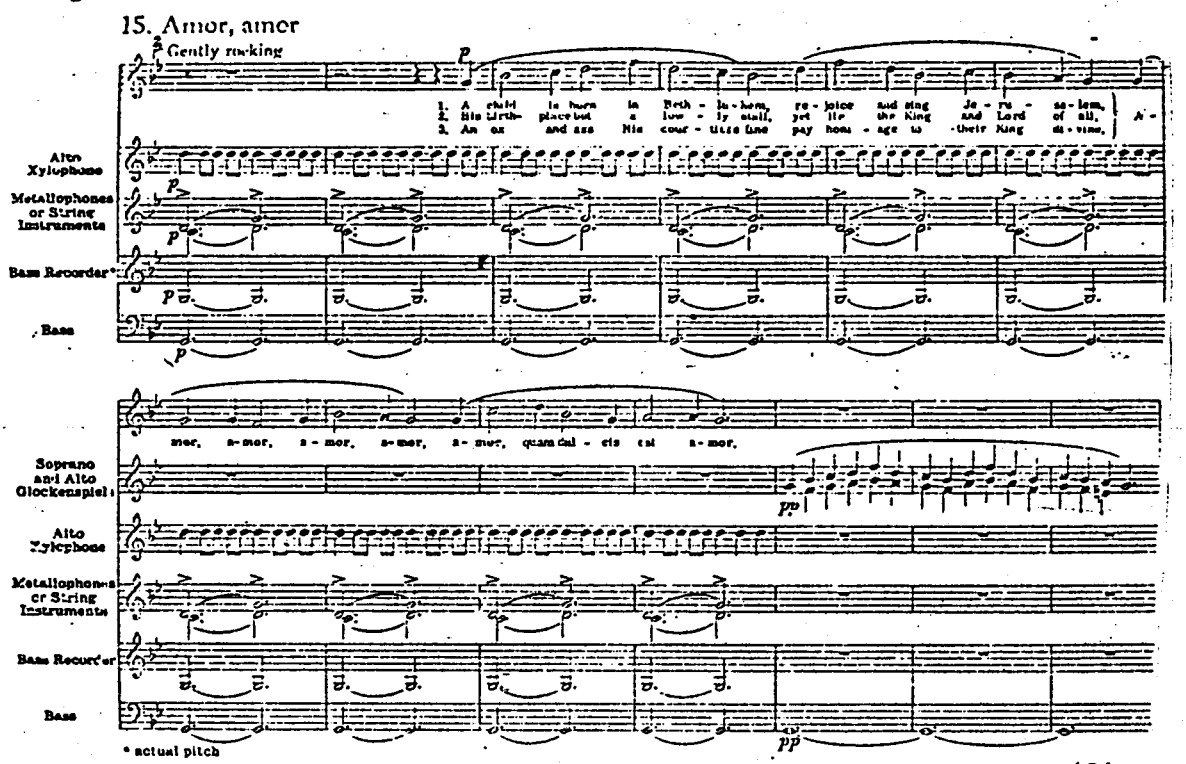


In Orff-Schulwerk

In the same way, he uses the ostinato in his "Music for Children", a series of five book which he wrote in collaboration with Gunild Keetman for a series of broadcasts for the Bavarian State Radio. This later became the basis for Orff-Schulwerk.

Figure 3 below is a very simple ostinato, with the metallophones playing just two notes each, and the lower instruments playing just one. This ensures that everybody should be able to play one or more of the parts.

Fig 3:



(2)

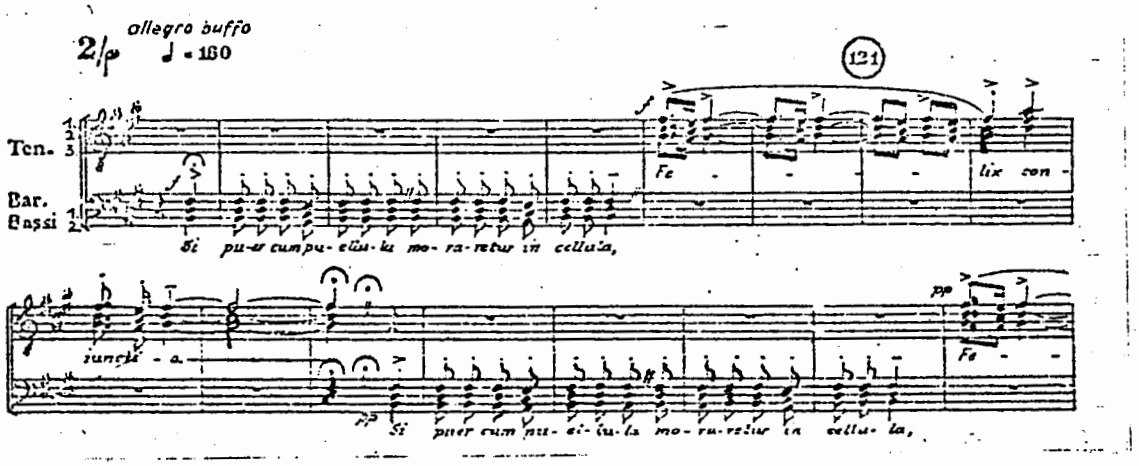
ORFF'S USE OF VOCAL ANTIPHONY

In His Compositions

In both Carmina Burana and Catulli Carmina, Orff's antiphony takes the form of one ostinato idea pitted against another, with text repetitions in both vocal parts. Figure 4 below, from Catulli Carmina, illustrates this. The basses and baritones sing "Si puer cum puellula moraretur in cellula" in the 'call' phrase while the tenors sing "Felix coniunctio" in the response phrase:

(2) Orff-Schulwerk: Music for Children series, Book IV, p. 37

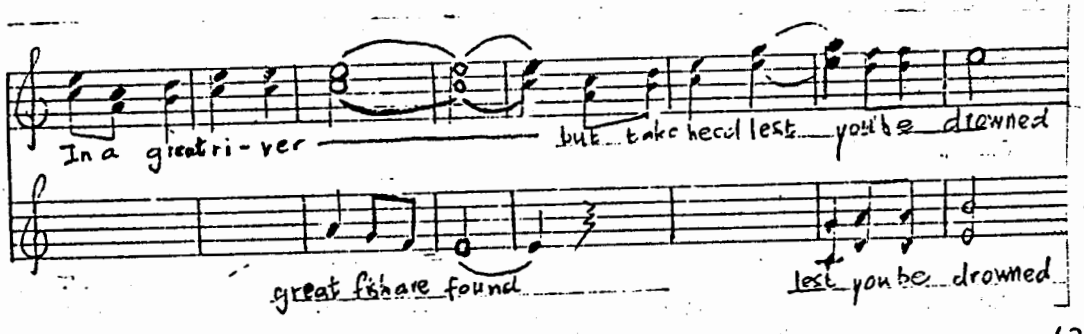
Fig 4:



In Orff-Schulwerk

In Figure 5 below, there is an overlap between the call and response phrases, resulting in rudimentary counterpoint between the vocal parts.

Fig 5:



(3)

From the examples above it can be seen that harmony is kept to its barest essentials. In Figure 1 the harmony is an open fifth, in Figure 2 it is a repetitive one-bar ground, in Figure 4 it is parallel diatonic triads and in Figure 5 (First Voice) it is in thirds.

In his cantatas, the music is accompanied by mime and movement. This must surely have acted as a source of influence in one of his educational ideas, that music is ideally a fusion of music, speech and movement.

(3) Orff-Schulwerk: Music for Children series, Book V, p.2

The Orff-Schulwerk approach to music education is a very practical and practicable one because it uses the pre-existent musical heritage from the folk culture of each country. Orff-Schulwerk cannot be described as a method, but rather as an approach, because it varies and adapts itself according to the musical culture of the countries concerned. The very core of the Orff-Schulwerk approach lies in the attainment of optimal educational worth through the judicious use of indigenous musical resources. This is the reason why Orff-Schulwerk encourages the use of indigenous proverbs, counting jingles, singing games, dances and any other musical practice for use in the classroom. This makes it possible for everyone to come into direct contact with group music-making and to develop fundamental skills in the manipulation of the elements of music-making. This approach is not geared towards the making of a few first-class instrumental musicians but supplies the basic elements of music to all children, some of whom should undoubtedly benefit from it in their future musical endeavours, should they specialize in a musical instrument.

A CORRELATION BETWEEN ORFF'S EDUCATIONAL IDEALS AND AFRICAN MUSICAL PRACTICE

("Musical Practice" is used as a generic term here. It includes teaching method, dance, the various scales and instruments used, and any activity related to the art of music-making.)

Group Music-Making

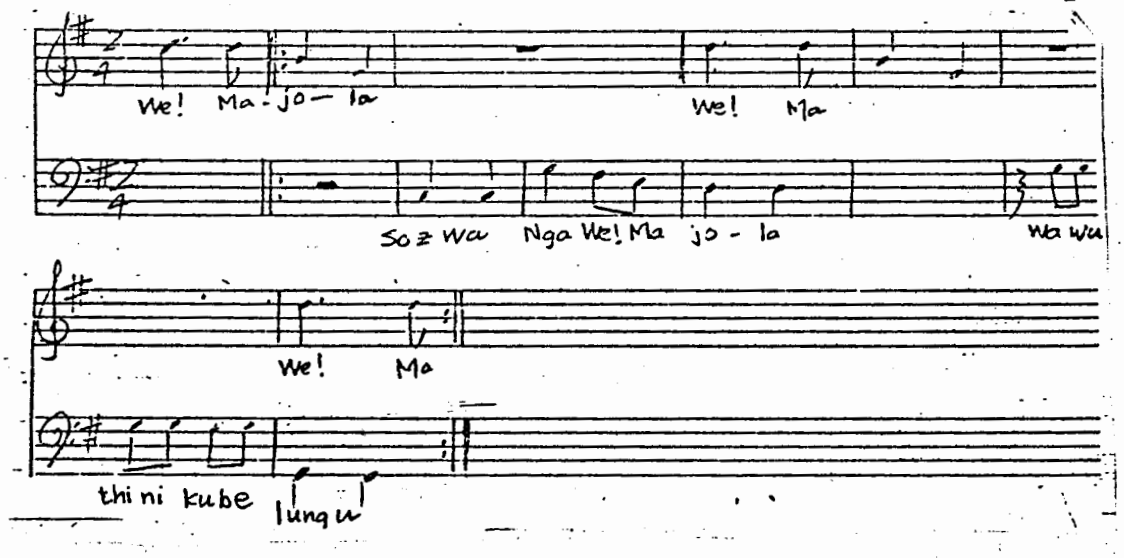
Carl Orff encourages music-making by everybody instead of specialization by a few. This allows everybody to participate as equal partners in the creative process of music-making. To foster this the instruments in the Orff Instrumentarium, discussed later in this chapter, do not require exceptional technical skill. Participants are not initially required to be able to read music.

In African music, group music-making is the order of the day, for the following reasons:

(i) Much of African music is antiphonal, involving more than one singer, with frequent overlapping of parts. It is therefore impossible for one singer to sing this type of song all on his own. (See Figure 6 below.)

Fig 6:

We! Majola! Zulu Song. Transcribed by D. Rycroft.



(ii) Much of African is related to collective activity such as work or dancing and singing.

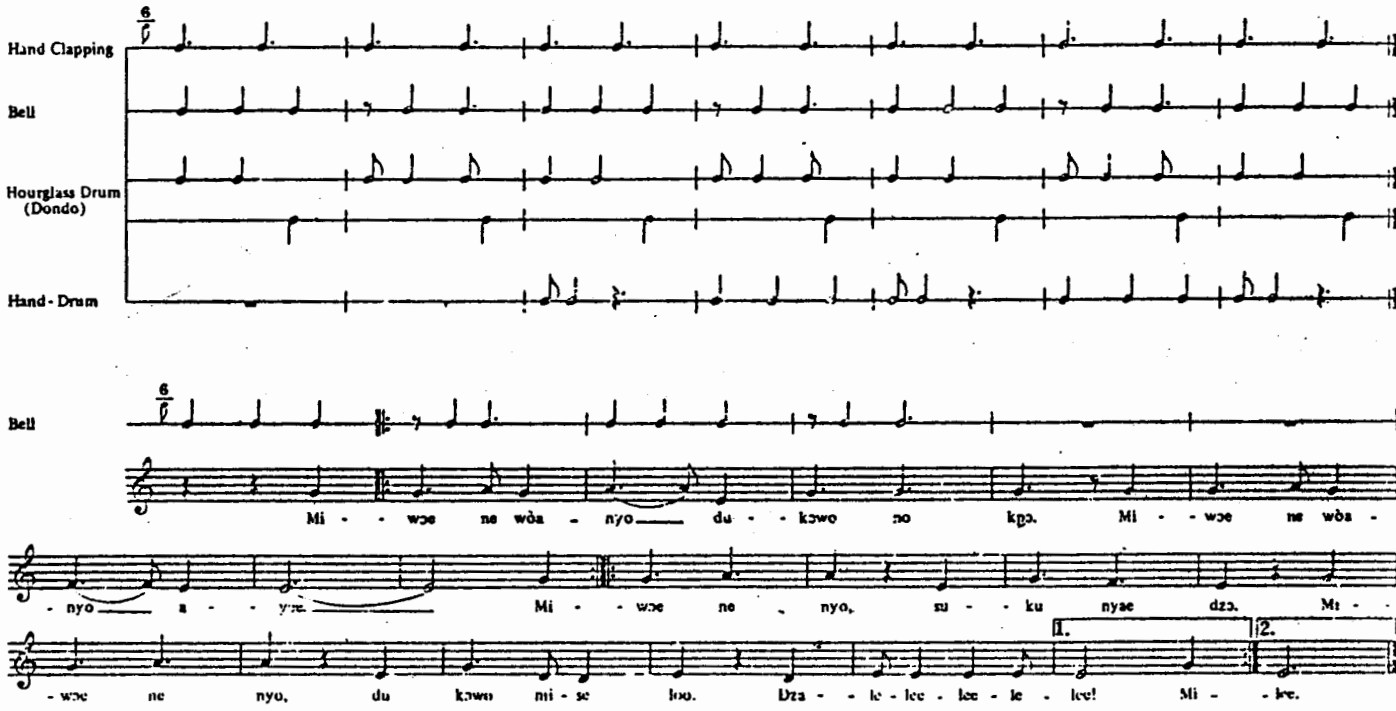
(iii) Many African songs have clapping and/or stamping accompaniment which often involves more than one clap-pattern. (See Figure 7 below.)

* D. Rycroft: "Nguni Vocal Polyphony" Journal of the International Folk Music Council, 1967, Vol. 19, p. 90.

Fig 7:

An Ewe Tune with rhythmic accompaniment

Miwɔe Nenyo



Miwɔe ne woa nyo, dukɔwo no kpɔ.
Miwɔe ne woa nyo, ayee.
Miwɔe ne nyo, suku nyae dzɔ
Miwɔe ne nyo, dukɔwo mise loo.
Dza le lee lele lee!

You must do it well for others to see.
You must do it well.
You must do it well, it's an era of education.
You must do it well for others to see.
Dzalelelelelee! (An exclamation).

(4)

John Blacking (5) began to understand the group-activity aspect of African music-making through his involvement with Venda music. He reports that this type of music-making can become an intricate part of the development of the mind, body and harmonious social relationships.

Speech

The close link between rhythm and language makes language a readily accessible tool for rhythmic development. Orff-Schulwerk therefore encourages the use of speech, for example: proverbs, speech patterns, riddles, nursery rhymes and non-sense syllables to provide a basis for early rhythmic training. Speech, like French time names, is used as an

(4) Orff-Schulwerk: African Songs and Rhythms in the School, p. 16

(5) J.Blacking: How Musical is Man?, pp. vii - viii

association in music education for the development of pulse and rhythmic awareness.

In African music, especially in the communities where drums are played, nonsense syllables, for example KI-GI-DESH and many other are used as mnemonics for drum patterns.

Movement

Orff-Schulwerk encourages movement involvement in music-making. In this field Orff was influenced particularly by R.Laban and J.Dalcroze. The types of movement can be categorized into two broad categories, namely, nonlocomotor movement, which involves inter alia bending, stretching, twisting, pulling, lifting, clapping, slapping; and locomotor movement. All these movements employ weight (heavy or light movement), space (small or big movements), time (slow or fast movements) and flow.

Below is a summary of the possible types of movement which can be exploited in the classroom:

A. BODY ACTIONS

(i) Stationary: twisting, bending, stretching
(ii) Locomotive: walking, running, skipping, hopping, jumping, turning, whirling.

B. QUALITY OF MOVEMENT

(i) Weight: gentle and delicate, firm and strong.
(ii) Time: quick and urgent, slow and gradual.
(iii) Flow: unrestrained and free, cautious and bound.

C. USE OF SPACE AND LEVELS

(i) Direction: up, down, sideways.
(ii) Patterns: straight, round, zig-zag, figure-eight, curved, twisted.
(iii) Body shape in space: straight and arrow-like, broad and wall-like, curved and ball-like, twisted and screw-like.
(iv) Size: big, little.
(v) Extension: near, far.
(vi) Use of levels: high, medium, low.

D. INDIVIDUAL OR GROUP WORK

(i) Relationship of body parts.
(ii) Partner relationships, e.g. meeting, doing together, leading, following.

(iii) Group work: trio as small group, simple formations, line, circle, shapes, simple actions, lowering, encircling, withdrawing. (6)

Many different musical concepts can be taught through movement, for example, rondo form:

1 Group A performs one movement pattern;

2 Group B moves in a contrasting pattern;

3 Group A resumes with the original pattern;

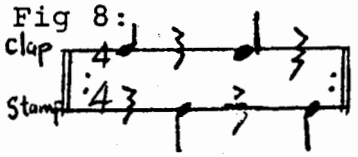
4 Group C moves in another contrasting pattern; etc.

Africans also use movement as a rhythmic enaction of a situation. Of this, J.L.Hanna says that it is a form of prayer, a symbol of respect, an expression of emotion or a means of psychological catharsis. (7)

THE USE OF MOVEMENT IN ORFF-SCHULWERK AND AFRICAN MUSIC COMPARED

Orff-Schulwerk extends movement to tactile involvement in the form of body accompaniment, which includes clapping, stamping, or knee slapping, either done individually or in combination. Many examples of this can be found in the Music for Children series. (See also Figure 8 below.)

Fig 8:



Body accompaniment, as in Figure 8 above, is not untypical of African music. In South Africa, stamping with the feet is a favourite accompaniment device of the Nguni. (See Figure 9.)

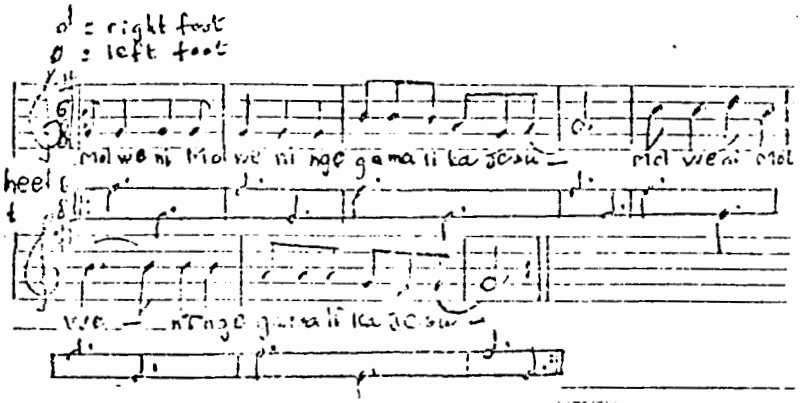
(6) M.Rink: "Carl Orff's 'Music for Children', a systematic adaptation and practical application of the above school music method for use in South African schools", M.Mus. Thesis, University of Pretoria, 1969, pp. 53 - 54.

(7) J.L.Hanna: "Field Research in African Dance: Opportunities and Utilities", Ethnomusicology, 1968, Vol 12 No 1, p. 303.

Fig 9:

Molweni

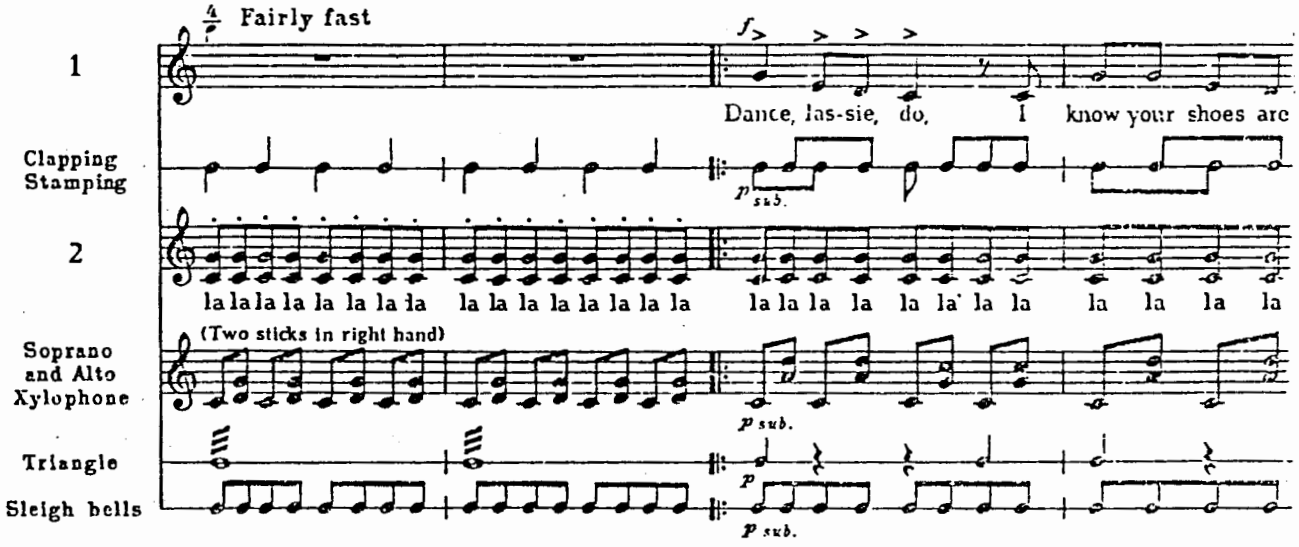
Xhosa isitibili
Transcribed by the author from a 'live' performance by "Teenage Harmonies", Guguletu.



Orff-Schulwerk adds body accompaniment to melodic and non-melodic percussion instruments. The rhythms of each accompanying instrument, though different from one another, are each repetitive ostinati of short rhythmic motifs.

Fig 10:

Dance, Lassie Do



(Orff-Schulwerk Bk II, p. 24)

In African music, instrumental tuition takes place either directly or indirectly.

Direct Tuition in African Music

An Ewe (Ghana) beginner on the drums is taught as follows: the tutor stands behind him and taps out the rhythms on his shoulders, clearly distinguishing the patterns of each hand. The beginner taps on the drums, in time with his tutor. The tactile rhythms of the tutor on to the pupil's shoulders ensures quick internalization of the rhythms by the pupil. (8)

(8) See J.M. Chernoff: African Rhythm and African Sensibility, Plate 10.

Indirect Tuition in African Music

When Zimbabwean children learn to play the mbira, they watch the more senior members of the community playing, and pay particular attention to the finger movements on the metal tongues. Because mbira players make much use of the cycle, the constant repetition of the same finger patterns can be easily memorized for imitation at some later stage.

THE USE OF SCALES IN ORFF-SCHULWERK

Orff-Schulwerk uses the following form of the pentatonic scale:

This form of the pentatonic scale does not have any 'tendency' * notes and is therefore free from the harmonic tendencies of the diatonic major and minor scale-systems. This enables the teacher or the pupil to use chords from the pentatonic scale in any combination when composing ostinati patterns. The examples in Figure 11 below illustrate this.

Fig 11(a):

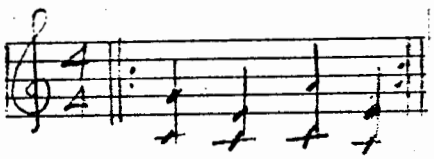
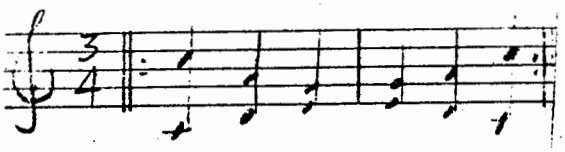


Fig 11(b):

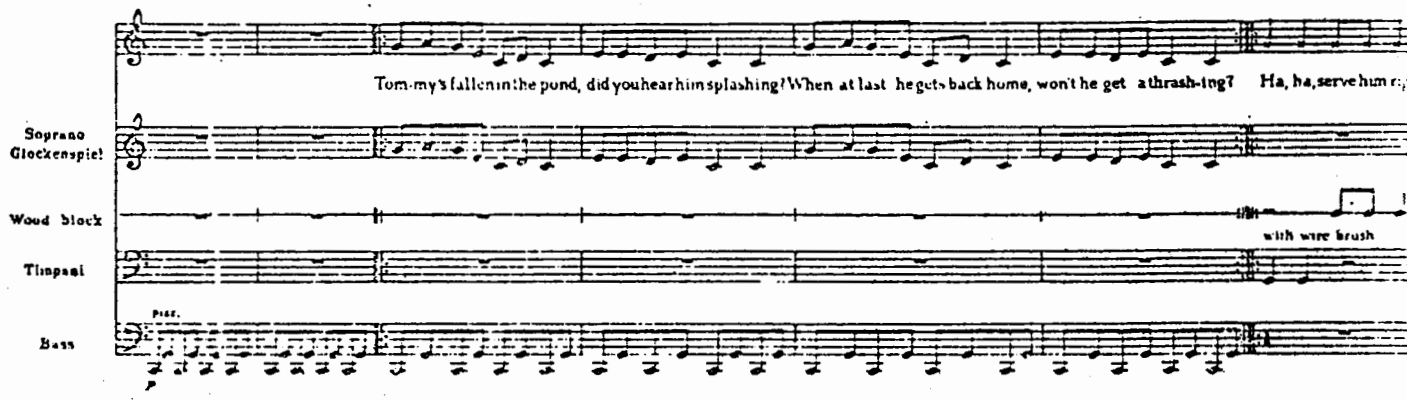


All the songs in Book I of the Orff-Schulwerk "Music for Children" series are pentatonic. Although the accompaniments are written out, pupils can also devise their own. A typical example of this kind of song is Figure 12 below.

* i.e. F leading to E, or B leading to C.

Fig 12:

Tommy's Fallen in the Pond



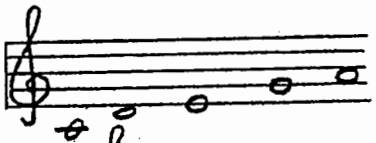
(Music for Children, Bk I, p. 17)

The Hexatonic Scale

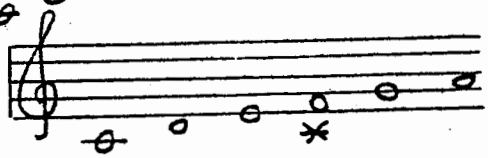
Orff-Schulwerk introduces the hexatonic scale as the addition of the 4th degree to the 12356 pentatonic sequence, as Figure 13 will illustrate.

Fig13:

pentatonic sequence:



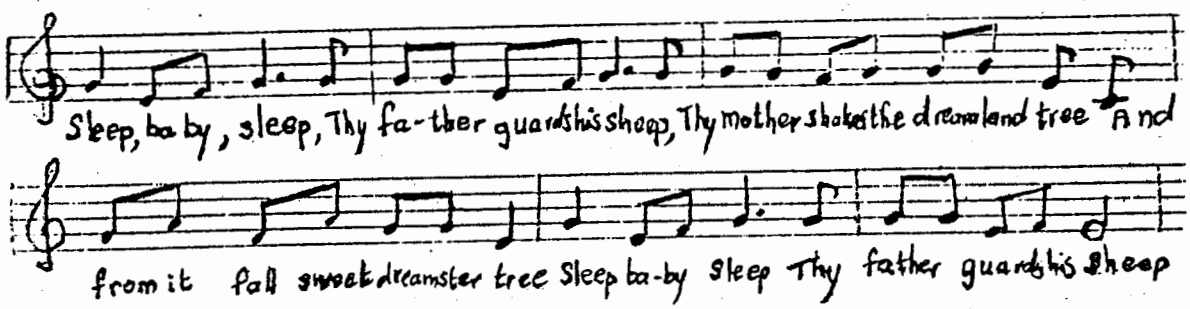
introduction of the 4th:
(See asterisk.)



Many examples of hexatonic songs can be found in Book II of the Music for Children series. For example, see Figure 14.

Fig 14:

Sleep Baby Sleep



(9)

(9) Orff-Schulwerk: Music for Children, Book II, p. 6

THE USE OF SCALES IN AFRICAN MUSIC

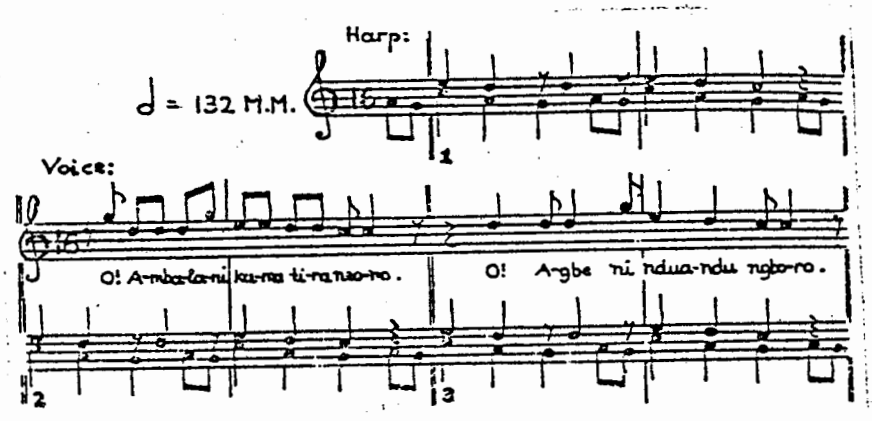
The author will now discuss the pentatonic scale with reference to the Ganda of Uganda and the Azande of Zaire and the hexatonic scale with reference to the Nguni of South Africa.

The Pentatonic Scale in African Music

The pentatonic scale is not unknown in Africa. In fact, it is found in 40% of African communities. Many mbira-types are tuned pentatonically.

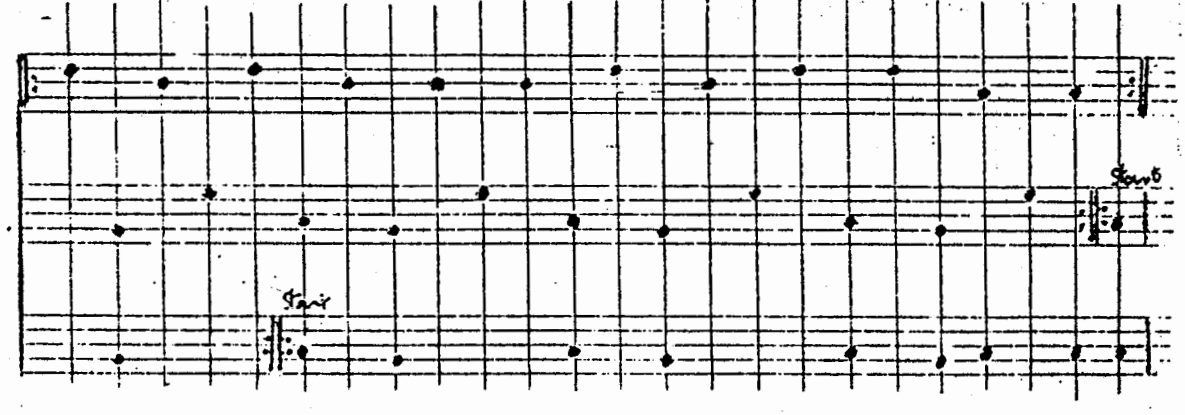
The kundi, of the Azande (Zaire) is tuned pentatonically and its chord-sequences are based on the 'skipping rule' in African music, which is the harmonization of a given note with the next note but one in the scale.

Fig 15:*



The amadinda of the Ganda (Uganda) is also tuned pentatonically, and the notes are played in cycles, which interlock with one another.

Fig 16: Olutalo Olwe Nsini: Azande, Zaire. Transcribed by G. Kubik (Afr.Music, V.2, No.3, 1960, p.18

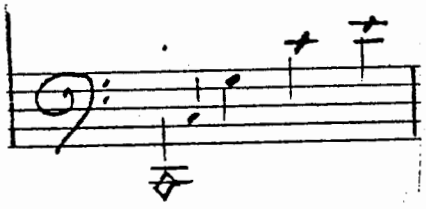


* Source: G. Kubik "Horn Music of the Azante. "African Music, Vol. 3, No. 3, 1964, p.64.

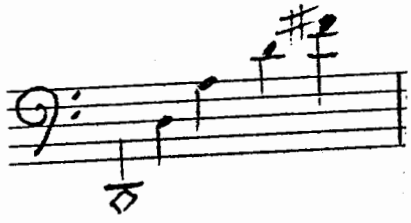
The Hexatonic Scale in African Music

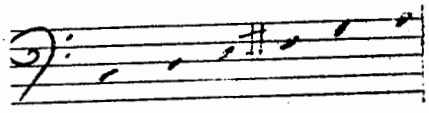
The partials of the two fundamentals on the bow, i.e. open or stopped, when written as an ascending scale together with their fundamentals produce a rather unique hexatonic scale, the intervals of which are entirely dependent on the distance between the two fundamentals, as will be deduced from the following:

Xhosa bow practice, as discussed in Chapter Four. uses a whole tone between the stopped and open fundamentals, i.e.
(a) open fundamental:

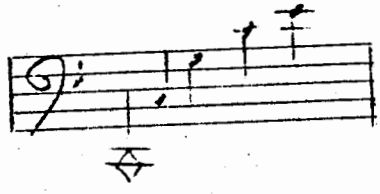


(b) stopped fundamental:

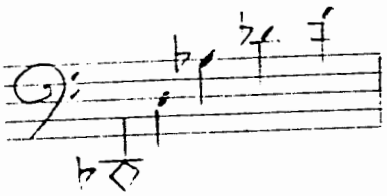


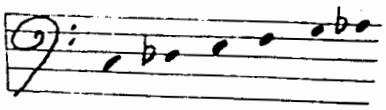
As a scale this can be represented as 

Zulu bow practice, on the other hand, uses a semitone between the stopped and open fundamentals, i.e.
(a) open fundamentals.



(b) stopped fundamental:

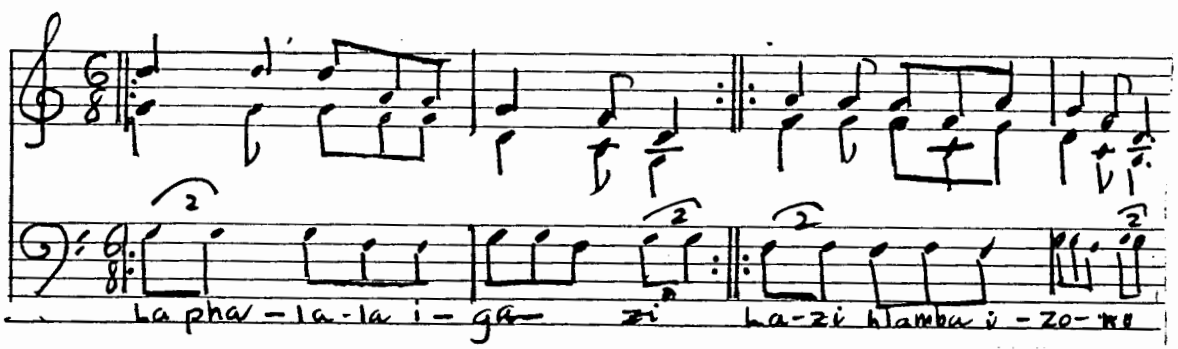


As a scale this can be represented as 

Both the above Xhosa and Zulu scales are hexatonic, based entirely on the physical properties of bow playing.

Figure 17 below is an example of a Xhosa song, sung to the accompaniment of the uhadi bow.

Fig 17: Xhosa Liturgical Tune. Transcribed by D. Dargie



(10)

A method of introducing the above tonal systems in the school is suggested in Chapter Nine.

THE OSTINATO IN AFRICAN MUSIC AND THE ORFF-SCHULWERK USE OF THE OSTINATO COMPARED

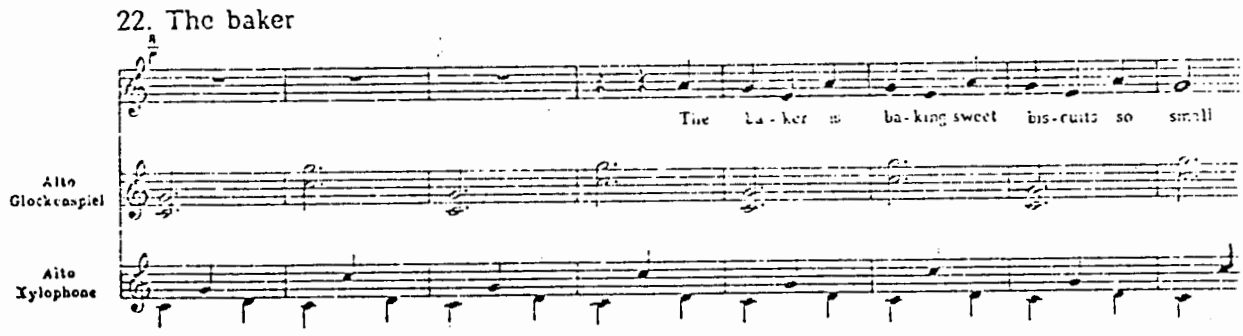
In African music the ostinato often consists of a short rhythmic motif, repeated continuously, which finds its counterpart in the Orff-Schulwerk ostinato.

In the Music for Children series Orff starts instrumental playing with the pentatonic scale because of the absence of semitones. The absence of harmonic implications enables the player to have greater freedom in his choice of an ostinato pattern as an accompaniment to song. Very often the ostinati of Orff-Schulwerk are confined just to two notes, ensuring

(10) Lumko Music Dept., New Church Music in Xhosa, p.20, March, 1981.

that everbody should be able to participate. For example:

Fig 18:



(11)

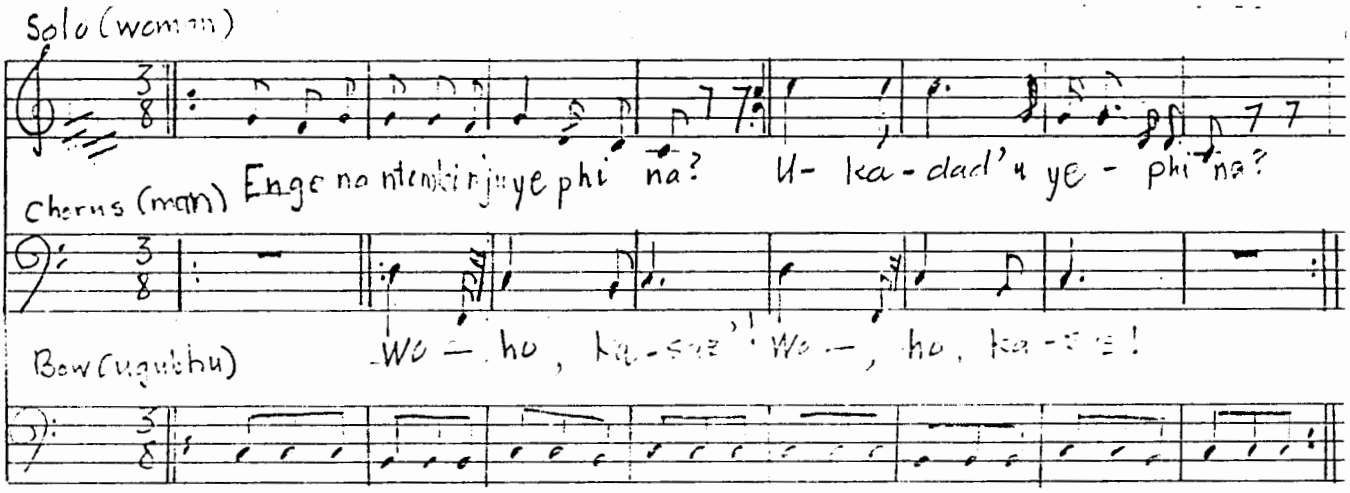
This aspect is characteristic of Nguni bow-music, which uses the two fundamentals and their overtones.

In Figure 19 the simple rhythmic accompaniment on the bow is comparable with many similar simple rhythmic accompaniments found in Orff-Schulwerk.

Fig 19:

Uyephi na? : Zulu Lullaby

Transcribed by D. Rycroft.



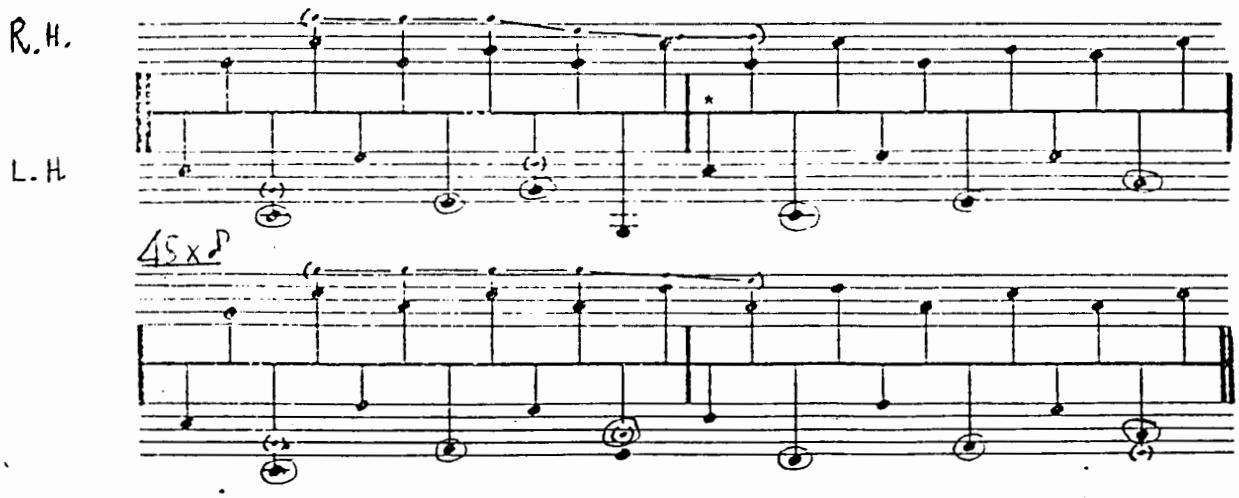
(12)

At times the African ostinato is more complex, for example the interlocking cycle so characteristic of mbira music.

(11) Orff-Schulwerk: Music for Children series, Book I, p. 18

(12) D. Rycroft: "The Zulu Bow Songs of Princess Magogo" African Music, Vol 5 No 4, 1975/6, p. 58

Fig 20: NHEMAMUSASA: Mbira tune: Zimbabwe: Transcribed by A. Tracey



(13)

THE ORFF INSTRUMENTARIUM AND AFRICAN MUSICAL INSTRUMENTS CORRELATED

The instruments in the Orff Instrumentarium are:

Tuned Bars: glockenspiels; xylophones; metallophones; chime bars.
Strings: 'cello; guitar; double bass.
Wind: recorder consort.
Tuned Percussion: timpani.
Untuned Percussion: wood blocks; rhythm sticks; sleigh bells; triangles; bass drums; side drums; castanets; tambourine; tambour; cymbals.

All these instruments are technically easy to play because they require very natural playing postures and hand movements.

Many African instruments, like the Orff Instrumentarium ones, are technically easy to play and yet they offer unlimited scope for the skilled performer. This allows musical, and not technical, considerations always to remain foremost in the player's mind. The uhadi, for example, is technically

(13) A.Tracey: How to Play the Mbira, p. 19.

very easy to play but the skilled player can tap out many complex rhythmic patterns on the string.

Many of the Orff Instrumentarium instruments, for example the xylophone and the maracca, find close counterparts in Africa. Table 1 below serves as a comparison between the instruments traditionally used in Orff-Schulwerk and African musical instruments.

Table 1:

	Orff-Schulwerk Instrumentarium	African Instruments	People: Locality
TUNED BARS	xylophone	amadinda	Ganda: Uganda
	glockenspiel	akadinda	Ganda: Uganda
	chime bars	timbila	Chopi: Mozambique
	metallophones	marimba	Venda: Venda (RSA)
		madimba	Bapende: Congo
		kponingbo	Azande: Zaire
WINDS	recorder consort	ocarina	Venda: Venda (RSA)
		nyere flutes	Korekore: Zimbabwe
		ndere	Ganda: Uganda
STRINGS	lute	Musical bow types:	
	guitar		
	lower string instruments with open strings on G and C	uhadi	Xhosa: RSA
		ugubhu	Zulu: RSA
		umakhweyana	Swazi: Swaziland
		chipendani	Shangaan: Mozambique
		Harp types:	
		kundi	Azande: Zaire
		ennaⁿga	Ganda: Uganda
		ombi	Zande: N. Congo
		Zither types:	
		ennanga	Hutu: Rwanda

TUNED MEM-BRANES	timpani	tama kalenga atsimevu	Wolof: Senegal Hausa: Senegal Ewe: Ghana
UNTUNED MEM-BRANES	hand drum tambourine side-drum bass-drum	ngoma gidunu ingungu	Venda: Venda (RSA) Senufo: Ivory Coast Zulu: RSA
UNTUNED METAL	cymbal triangle sleigh bells	axatse bell	Ewe: Ghana
UNTUNED WOOD	rhythm sticks wood-block maracca castanets	spagane (wood clappers) hosho (gourd rattle) sekere (gourd rattle) imiguza (leg rattle)	Thonga: RSA Korekore: Zimbabwe Yoruba: Nigeria Xhosa: RSA

A COMPARISON SHOWING SIMILARITIES BETWEEN ORFF'S EDUCATIONAL APPROACH AND AFRICAN MUSICAL PRACTICE (SUMMARY)

Orff's Approach	African Musical Practice
Music as a Group Activity through:	Music as a Group Activity through:
1 Movement	1 Movement
1.1 Expressive	1.1 Work Movement
1.2 Creative	1.2 Dance Movement
1.3 Types of Movement	
1.3.1 Locomotor	
1.3.2 Stationary	
2 Speech	2. Speech
2.1 Mnemonics (e.g. French Time Names)	2.1 Mnemonics
2.2 Speech Patterns Taken From the Vernacular	2.2 Speech Patterns Taken From the Vernacular
3 Music	3 Music
3.1 Acquiring Instrumental Skills on Melodic and non-Melodic Instruments	3.1 Acquiring Instrumental Skills
3.1.1 Various scale-types	3.1.1 Various scale-types
3.2 Ostinati	3.2 Ostinati
3.2.1 Vocal ostinati	3.2.1 Instrumental ostinati
3.2.2 Instrumental ostinati	
3.3 Learning by Imitation	3.3 Learning by Imitation
3.4 Musical Notation	3.4 Music as an Aural Art

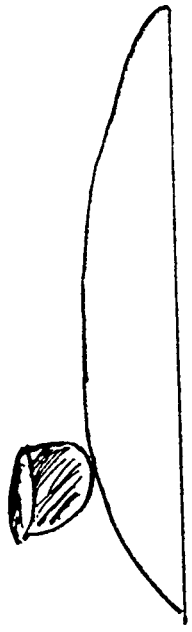
Chapter Eight

How to Make Models of Some African Musical Instruments

How the African crafts his musical instruments has been discussed in Chapter Four and it is necessary only to re-emphasis that he uses material from his own local environment. The purpose of this chapter is to discuss how to make African musical instruments with materials which are readily available in the urban environment.

THE UHADI/UGUBHU

Fig 1:

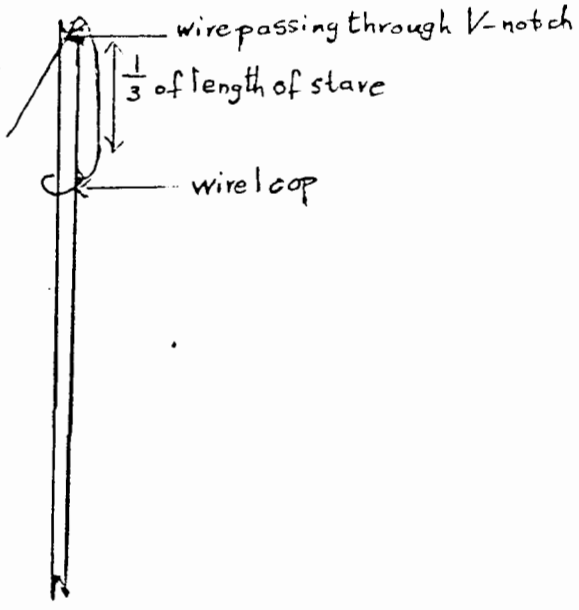


The chief difference between the uhadi and the ugubhu is not a physical, but a technical one. Whereas the uhadi fundamentals oscillate by a tone, those of the ugubhu oscillate by a semitone. This makes it possible to play in the uhadi or ugubhu style on the same instrument.

Materials: A dowel rod or bamboo, length 1 150 mm; thickness 16 mm; a straight length of strong wire, length 1 250 mm ±, thickness 1 mm; an empty tin, diameter of orifice 100 mm ±; a small piece of foam rubber or cloth.

Cut a small V-notch at both ends of the dowel. Loop the one end of the wire length into a noose and fit it on to the stave about one-third of the way down with the wire now passing through the one V-notch, as in Figure 2.

Fig 2:



Let someone else bend the dowel into a bow-shape by putting the one side on to the ground and putting pressure on the other. Loop the other end of the wire in and around the V-notch on the other end with a pair of pliers. The person bending the dowel slowly releases his grip so that the wire now takes the full tension of the recoiling action of the dowel.

Punch a hole in the middle of the closed side of the tin. Take a small piece of wire and loop it around the stave at the other end from the wire noose, also one-third of the way down. Pass the ends of the wire through the hole in the tin, twine them together and flatten them out to form an anchor. In this way the tin is joined to the stave, with the orifice facing outwards. Attach the piece of foam rubber between the bow and the tin. This insulates the tin against the vibrations of the stave.

The tuning can be adjusted by sliding the wire noose towards the end of the stave to decrease the tension and down along the stave to increase the tension. Clear overtones can be

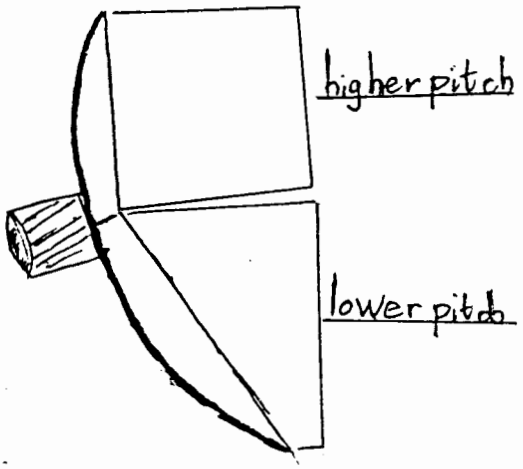
obtained when the string sounds about the note E, one octave below middle C.

A wooden stalk or a wooden ruler or a piece of stiff grass can be used to strike the string.

THE UMAKHWEYANA

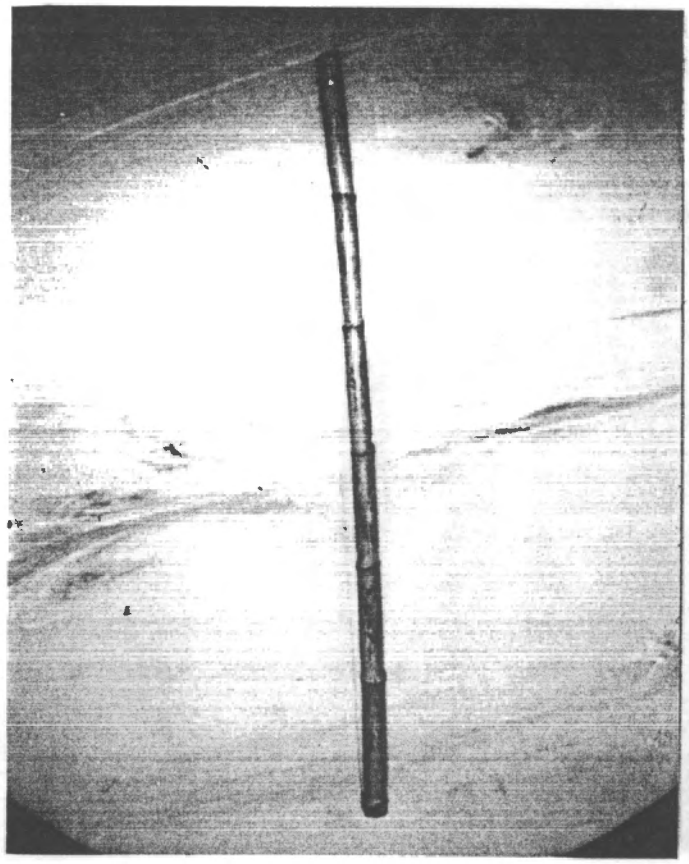
The method of stringing the umakhweyana is similar to the method of stringing the uhadi/ugubhu, as discussed earlier. The resonator is attached almost at the centre of this instrument, and the wire loop connecting it to the bow includes the bow-string as well, dividing it into two, with the one length of string slightly longer than the other. The longer length sounds out the lower pitch. (See Figure 3.)

Fig 3:



THE MOUTH BOW (INKINGE)

Fig 4:

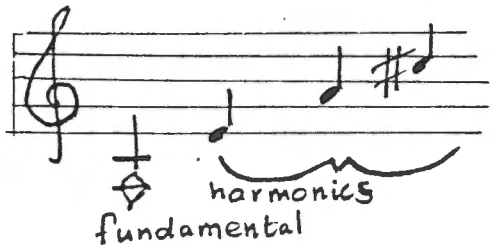


Materials: A rod, diameter 7 mm ±, length 400 mm ±, cut just behind the nodes on either side; a piece of gut string e.g. fishing line.

Cut V-notches on either side of the rod. Tie the gut to one side; pull it taut and tie it securely to the other side.

Playing Technique: The player can obtain a clear fundamental along with one or more notes of the harmonic series by gently pressing one end of the bow against the side of the lip and by plucking the string near his mouth. By varying the shape of his mouth he can obtain higher partials.

Fig 5:

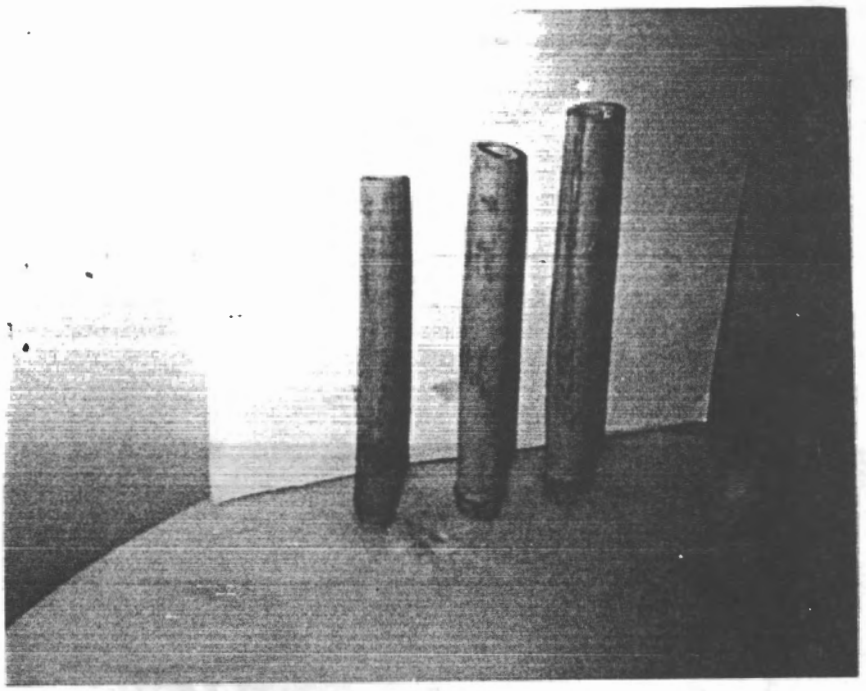


It is also possible to obtain other fundamentals by stopping the string.

The sound of the inkinge is very soft but is quite audible in silent surroundings.

THE TSWANA REED PIPES

Fig 6:



Materials: A long shoot of bamboo, with an average diameter of 25 mm. (smaller diameter better for higher notes, larger for lower)

Cut the bamboo just before each node, thus obtaining pipes which are stopped at the one end. Ensure that each pipe is very clean inside and test the pitches by blowing over the open ends.

It is best to make the lowest-pitched pipe first and then to tune all the other pipes relative to it. This is done by cutting small sections off the open ends of each pipe until the desired tuning is obtained.

Use sandpaper to smooth the edges of the pipes to avoid cutting the lips.

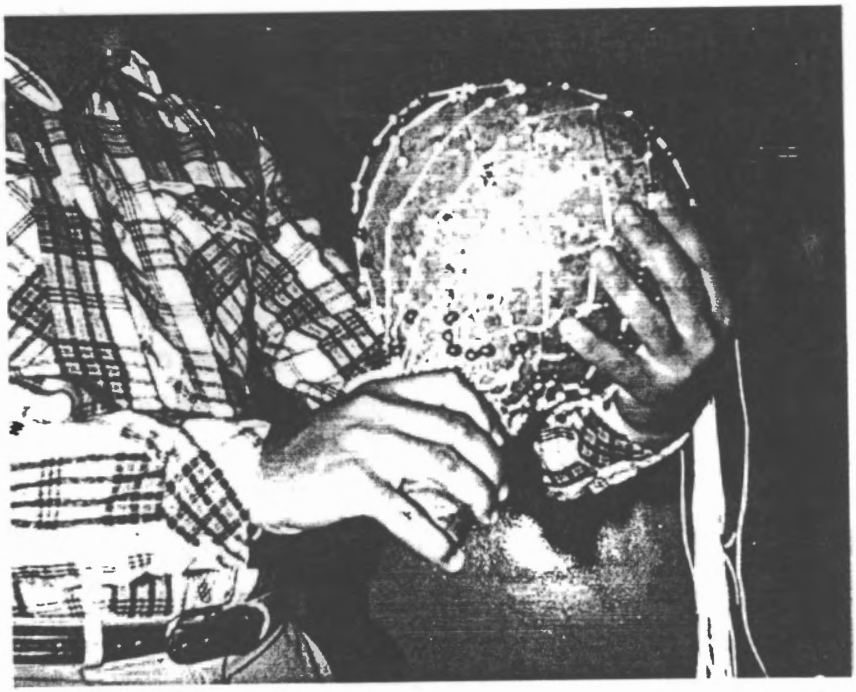
The table below should serve as an approximate guide to the tuning:

Table 1

Notes	Diameter (mm)	Length from the node (mm)
G above middle C	23	200
C an octave above middle C	21	140
D an octave above middle C	19	130
F an octave above middle C	19	100
G two octaves above mid. C	19	95

THE BEAD RATTLE

Fig 7:

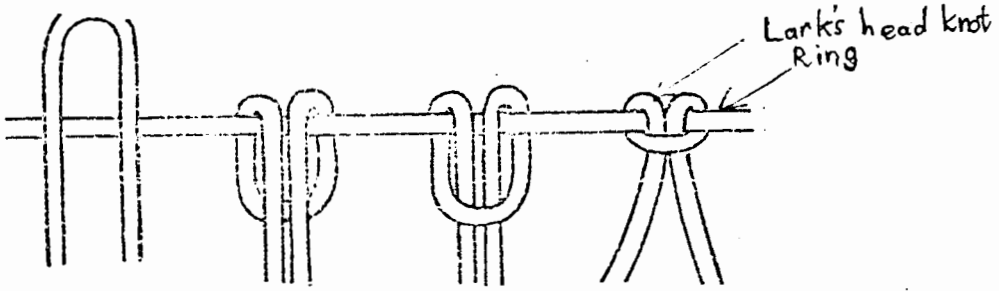


Materials: A large dry calabash; small beads of various shapes; a piece of strong string (thickness approximately 3mm) sufficiently long to encircle the neck of the calabash; a ball of thin string (thickness approximately 0,55mm).

Fig 8: The calabash

Measure the neck of the calabash and encircle it with the thicker string. Secure the string round the neck by splicing it. This circle of string will be referred to as the ring. (See Fig. 9 below).

Fig 9: The ring and the lark's head knots



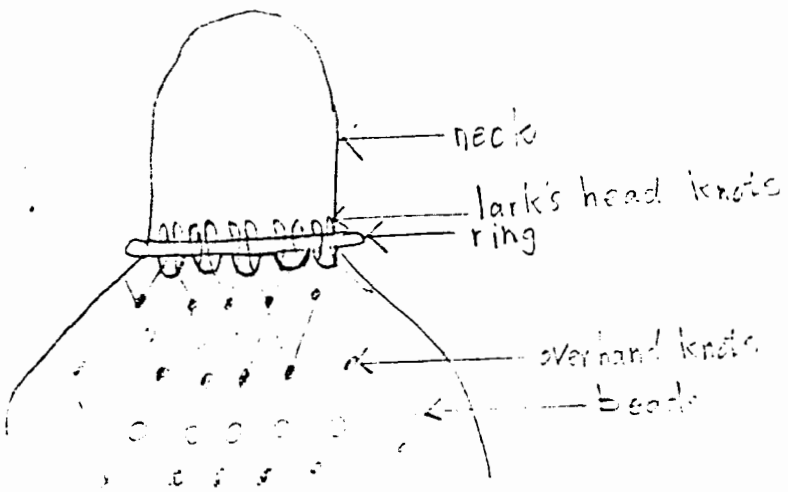
Description of the lark's head knot:
Fold the string in half; place the loop above the ring. Pull the loop down behind the ring and pull the ends into the loop. Pull tight.

In order to ascertain the required length of the thin string to fit the whole calabash, measure from the ring to the base of the calabash and multiply this by three. Cut between 20-30 lengths of it to fit onto the ring. Fold each string in half and attach it to the ring by means of lark's head knots (as described in Fig 9).

Join two strings (one from each pair, as indicated in Fig 10) with overhand knots. Thread beads between each overhand knot so that a pattern is formed. (See Fig 11)

Fig 10

Fig 11



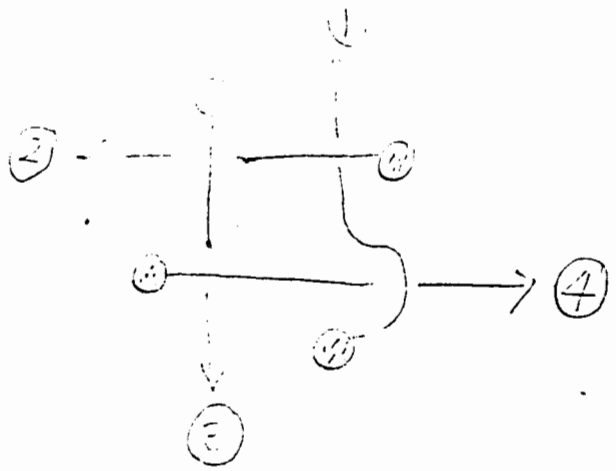
Allow the lengths of string between each overhand knot to increase in size until the waist of the calabash is reached. Gradually decrease the lengths as the base is approached. While doing this, take an increasing number of pairs as one and make overhand knots with each (this increases the thickness of the 'net').

Gather all the strands together and make a firm overhand knot so that the 'cover' fits tightly against the base of the calabash.

To make a neat tail at the bottom, divide the excess lengths of string into four equal groups and make four or more crown knots (also known as lanyard knots) as in Fig 12. Wax the

ends of the string to prevent the strands from coming loose.

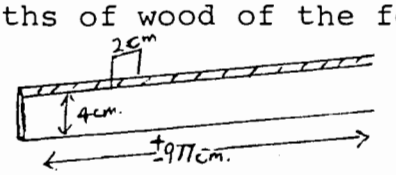
Fig 12



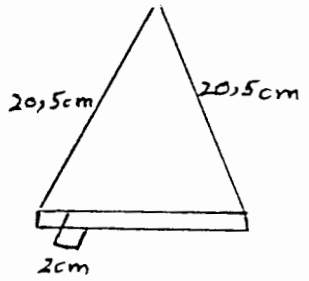
Description of the crown knot: Place the strings in position in order 1 to 4. Leave a bit of a loop in 1 to allow 4 to go through.

THE AMADINDA XYLOPHONE

Materials: Wooden slats (preferably kiaat or sneezewood). The approximate dimensions of the keys are indicated in Table 2 below. Two lengths of wood of the following dimensions:

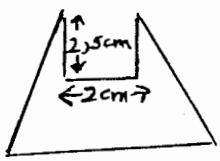


four triangular pieces of wood of the following dimensions:

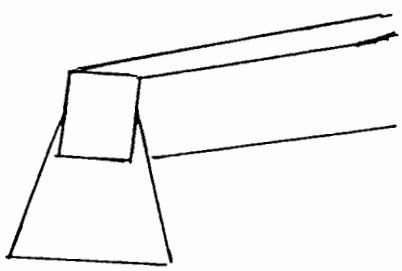


How to make the stand: Cut off the apex of each triangle about 35 mm from the top:

Cut out a rectangular piece of wood of length 25 mm and width 20 mm off the top:



Glue each of the lengths of wood into these grooves as follows:



Glue a rubber strip on top of each of these wooden lengths - this acts as an insulator.

TABLE 2 (Acknowledgement: A. Tracey)

Key No.	Length (cm)	Width (cm)	v.p.s.
17	38.1	8.1	1456
16	40.6	8.5	1248
15	42.8	8.8	1120
14	45	9.1	928
13	47.5	9.4	832
12	49.7	9.7	728
11	52.2	10.3	624
10	54.4	10.6	560
9	56.9	10.9	464
8	59.4	11.3	416
7	61.6	11.6	364
6	64.1	11.9	312
5	66.6	12.2	280
4	68.8	12.5	232
3	71.3	12.8	208
2	73.8	13.1	182
1	76.3	13.5	156

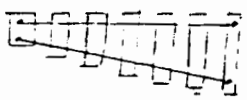
All thicknesses 5 cm. These measurements are between the nodes of each key and not from end to end. (For explanation of 'nodes', see below).

How to find the nodes:

Hold the key near the end. Tap it to find out the exact point where it sounds best. The best sound is usually obtained at a point approximately two-ninths of the length from the end.

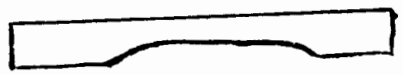
Place the key on a soft cushion or blanket and pour a little sand over it. Tap the key. Sand will gather in a straight line exactly over the two nodes, which will be found to be the same places where the key rings best in the first method, but a little more accurate. They must be supported at these midpoints, on nails which fit loosely into holes drilled into them. If the

xylophone is to have a number of keys, find the nodes on the biggest and smallest keys; place the intermediate keys next to these in such a way that they all form a straight line on the one side, ie.  and draw a line from the nodes

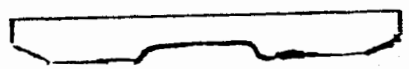
of the smallest key to the corresponding nodes of the largest, i.e.  The nodes of the other keys will be where

the lines intersect the midpoints of each key.

How to tune the xylophone keys: To flatten a key, cut out a shallow V-notch from its centre, underneath with a saw:



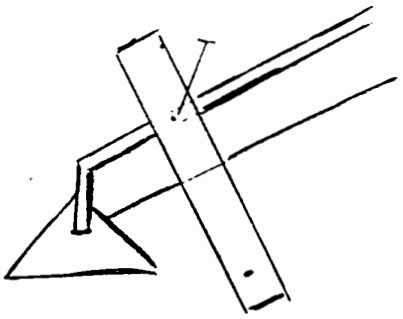
To raise the pitch, cut away from the ends of the key:



In this way one can obtain an ascending pentatonic scale, corresponding roughly with the notes.

How to fix the xylophone keys on to the stand:

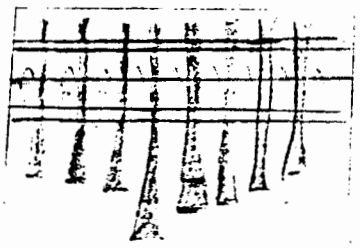
Drill two holes into the nodes of each key (one on each node). Put the keys on to the stand and mark off the points on the stand at which the holes touch it. Drill holes into these points. Align the holes in each key with the corresponding holes in the stand and insert long nails to keep them together, as illustrated below: (N.B. The nails must be loosely fitting in the holes in the keys.)



Sawn-off broomsticks, about 15cm long, serve well as beaters.

THE KALIMBA-TYPE MBIRA

Fig 13:

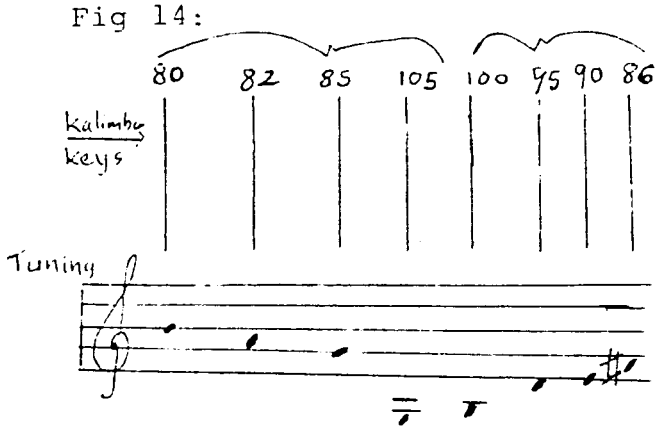


Materials: eight thick strips of wire, length 150 mm (clothes hangers or umbrella rods are suitable); a wooden board, length 150 mm, width 100 mm, thickness 10 mm ±; a piece of dowel, length 100 mm, thickness 15 mm.

Split the dowel in two along its length.

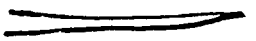
The tuning of this mbira corresponds roughly with the following (the length of each key, from the bridge to the tip, in mm is approximate):

Fig 14:



Knock one end of each key into a flaring shape with a hammer. Viewed from the top, therefore, each key should have the following shape:

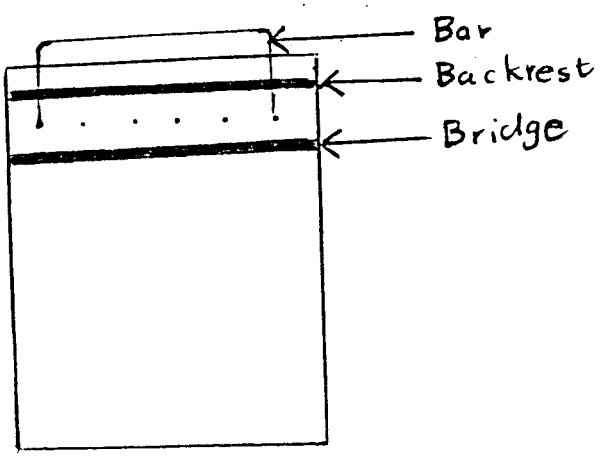
Taper off each key along its length so that it looks like a V, viewed from the side, i.e.:



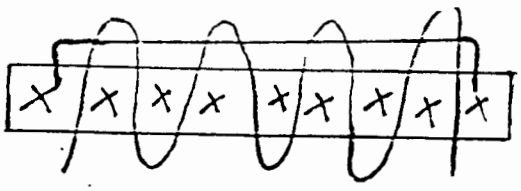
Smooth the edges of each flare with a piece of emery cloth.

Glue the flat parts of the dowels across the width of the wooden frame about 60 mm apart and about 10mm and 20mm respectively from the one end.

Fig 15

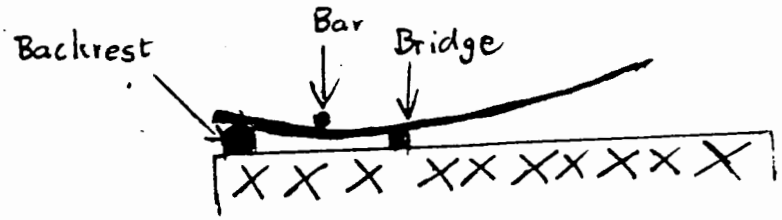


Shape a flat piece of iron (thickness about 5mm.) into a C-shaped bar, i.e. ⊏. Place the ends into the holes on either extremity of the frame as in Fig 15 above. Secure this to the frame by taking copper wire and threading it as follows:



Fit each key on to the frame so that it passes under the bar and over the dowels, as in Figure 16.

Fig 16



To sharpen each key, taper the flare-edges more; to flatten hammer the key near the bridge.

THE DOUBLE-HEADED DRUM

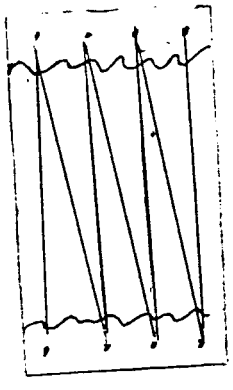
Materials: A large hollow plastic or metal container; two circular pieces of vellum or fresh, salted cowhide, large enough to cover the circumference of the container; several metres of leather thong or thick string.

Cut off the top and bottom of the container. Wet the vellum and stretch it on to either of the open ends of the container and mark the circumference with a pencil.

Take a pair of dividers and mark off an even number of equi-distant points on both pieces of vellum. Cut holes into the vellum with a pair of punch pliers. These should be large enough for the thong to pass through. If thin vellum is being used, reinforce it by making small holes close together, to share the load. Another method of reinforcing thin vellum is to encircle the holes with cloth or leather.

Fasten the pieces of vellum to each other and to the container by means of zig-zag lashing, as indicated in Figure 17:

Fig 17:



Allow the vellum (the drum-heads) to dry. This causes contraction which increases the tension on the chord.

Chapter Nine

Aspects of African Rhythm, Song and Harmony in the Classroom

9.1 ASPECTS OF AFRICAN RHYTHM IN THE CLASSROOM

Preliminaries

The Orff system of rhythmic training affords direct experience and involvement with rhythm at a basic level, thus enabling participation by all concerned.

This is the reason why movement, speech and tactual involvement (i.e. body percussion); rhythmic and melodic instrumental playing, are essential features of the Orff-Schulwerk approach.

Before discussing the use of African rhythm in the classroom through the Orff-Schulwerk approach, some attention has to be paid to the teaching of pulse in the African sense because it is the single underlying beat of African rhythmic structures.

The experience of pulse through movement: Movement to pulse is very important, because this is directly linked to the motor system. This is an essential feature of all learning - the first learnings of a baby are motoric with associative and cognitive learnings coming after that. It is therefore essential that all pulse and rhythmic training be put into body experience first, whatever the age of the learner. (1)

Pulse can be experienced by the various body parts through stationary or locomotor movement. Stationary movement includes twisting, bending and stretching, while locomotor movement includes running, skipping, hopping, jumping, turning and whirling.

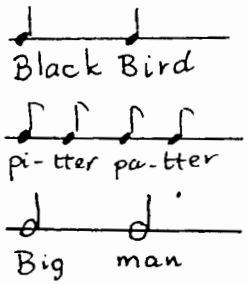
Movement to pulse should also have quality, because through this one can acquire expressiveness. The quality depends on three variables, namely: weight (gentle to firm), time (quick to slow) and flow (free to bound).

(1) M.Rink: personal communication

The experience of pulse through speech: Speech is another modality through which pulse or rhythmic patterns can be experienced. It acts as an aid to internalize rhythmic vocabulary. French time-names serve the same purpose.*

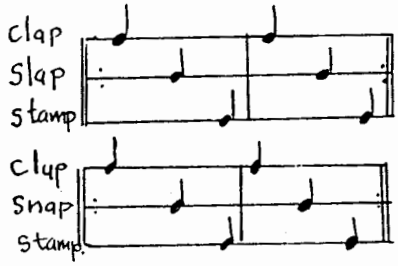
Words or names can be used to fit any pulse and can be repeated as an ostinato pattern. Each word should be articulated very clearly with the correct accents. For example:

Fig 1:



The experience of pulse through tactual involvement: By tactual involvement is meant the use of the body as a musical instrument. Tactual activities therefore include finger snapping, knee slapping (patschen), hand-clapping, stamping and any other activity where the body is used to make percussive sounds. It is through tactual involvement that one acquires the basic techniques of instrumental playing. For example, the progression between slapping the knees to beats with both hands and playing the interval of a perfect fifth on the xylophone is very small.

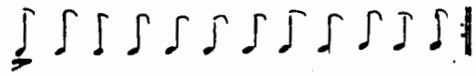
The teacher can make up body-percussion patterns to the ♩ using various levels of the body as follows:



Any pulse or rhythmic pattern can be used in the above manner.

*e.g. ♩ = taa, ♫ = ta-te

The teaching of rhythmic groupings follows on naturally from the teaching of the pulse. The following is a good exercise to consolidate this:

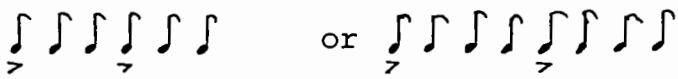
The teacher plays ‖:  ‖

and asks how many beats there are between each accent.

The class is now asked to stamp the accented note and to clap all the unaccented ones. In this activity, the class applies what they have heard through body percussion.

This rhythm is now presented visually as a final consolidation exercise.

The same teaching strategy is applied when accenting on the first of every three pulses, or the first of every four, i.e.



The Introduction of Additive Rhythms in the Classroom

The even flow of pulses can be used as a 'building brick' to derive a variety of rhythmic usages which are current in Africa. It can be used to derive additive rhythms through the HEAR, DO, SEE Method, (2) i.e.:

HEAR: the rhythm is heard by the class
DO: the class experiences the rhythm through movement, speech and accompaniment
SEE: aural/visual consolidation.

The class hears the even flow of pulses. The teacher then groups the pulses into two groups of threes and one group of twos in any combination and asks the class what has happened.

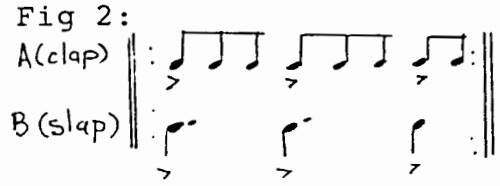
In DO, the class experiences the 3 + 3 + 2 pattern (or whatever combination the teacher chooses) and moves to it by thrusting out the arms or changing the position of the body on the first beat of each grouping and walking to the other beats.

The teacher now takes any one of these patterns, divides

(2) M.Rink: "Carl Orff's 'Music for Children': a systematic adaptation and practical application of the above School Music Method for use in South African Schools", pp. 30 - 35

the class into groups A and B, and lets group B knee-slap on the strong pulses of A, as in Figure 2 below:

Fig 2:



When difficulty is experienced, numbers, speech associations and French time-names are used:

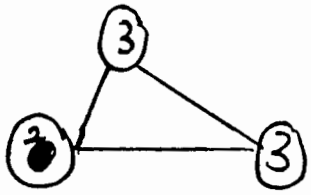
Numbers: (1) 2 3 (4) 5 6 (7) 8 (The circled numbers denote accent)

Speech Associations:

French time-names:

A diagram, such as the one below, also serves as a useful aid:

Fig 3: (The numbers represent the 3 and 2 pulse groupings respectively.)

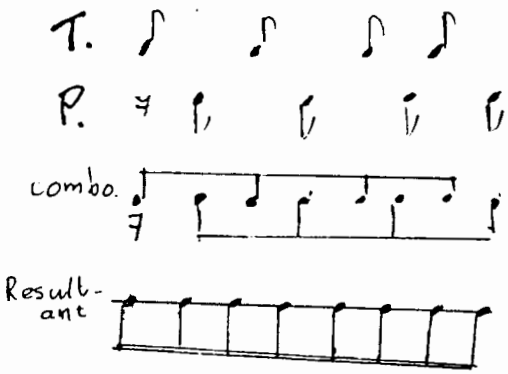


In SEE the class is shown the above rhythm in notation. As the 3 + 3 + 2 (or 3 + 2 + 3) rhythmic pattern is so characteristic of Nguni bow music, it can be consolidated aurally by letting the class hear recorded examples of bow songs (For example, The Sound of Africa series, TR 10 and TR 13 B.).

Teaching Rhythmic Non-Coincidence

The teacher plays an even flow of ♪ pulses on the wood block, and lets individuals clap in between his beats. This is deceptively easy and needs time and patience to perfect.

Fig 4:



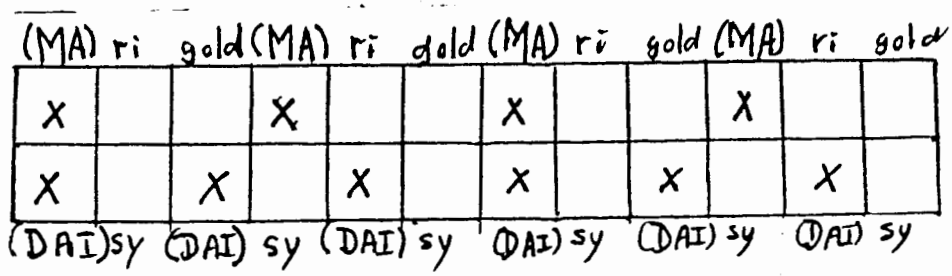
The teacher now involves more pupils by asking someone to clap the resultant; someone else to duplicate the wood-block pattern and someone else to duplicate the clap. In this way hearing acuity can be developed because individual sound patterns are distinguished from a complex of interweaving sounds.

The Introduction of Syncopation Involving groups of 2 and 3

Once the class experiences ♩. ♩. ♩ and the interlocking of pulses as described above, it should have little difficulty in clapping the ♩. ♩. of the ♩. ♩. ♩ pattern while walking to the ♩ pulses in $\frac{4}{4}$. This forms a syncopation because the accents do not coincide.

In Figure 5 below, the author uses the block notation in order to make the rhythmic relationships clear.

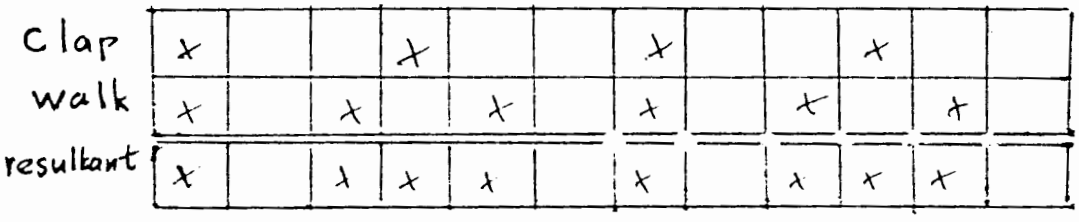
Fig 5: □ = ♩.



The speech-associations above can be used as an aid to obtain the correct accents between clapping and stepping.

Once this has been learnt the resultant of the stepping and clapping combination can be clapped, as in Figure 6.

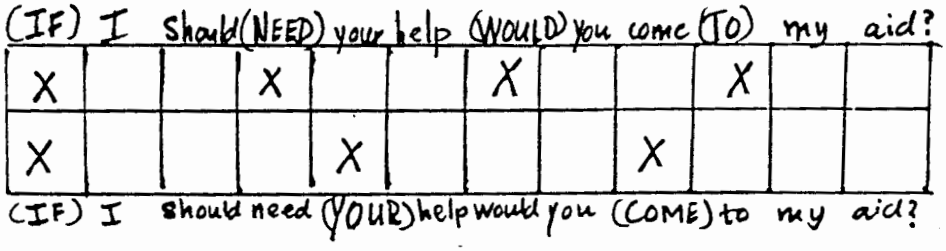
Fig 6: (The resultant is important in African music because the African is always aware of this, i.e. the single rhythm emanating from two or more contrasting rhythms.)



The Introduction of Syncopation Involving Groups of 4 and 3

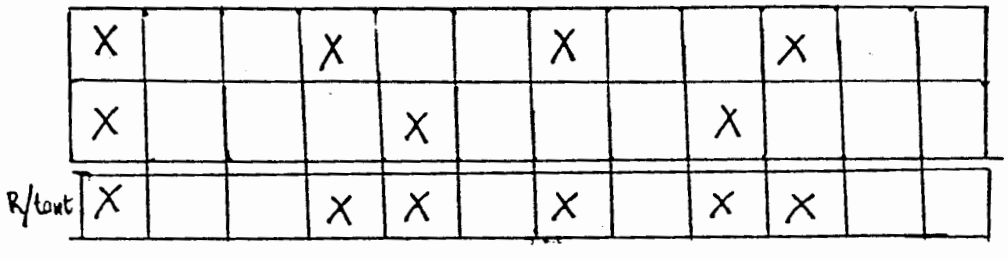
When groups of four ♩. 's and three ♩. 's are executed concurrently, syncopation is experienced as in Figure 7 below.

Fig 7:



The resultant rhythm is as follows:

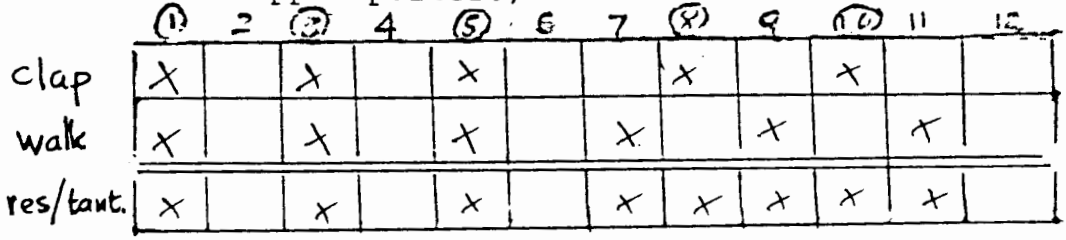
Fig 8:



The Introduction to the Most Basic Form of the Standard Pattern

Ethnomusicologists call the pattern ♩ ♩ ♩. ♩ ♩. the standard pattern because it is found virtually all over Africa, either as the above or as variants (See Chapter Three.). It is normally notated in $\frac{12}{8}$, but when it is felt in $\frac{6}{4}$, one can walk to it on each of the ♩ pulses of the $\frac{6}{4}$ metre. (See Figure 9 below.)

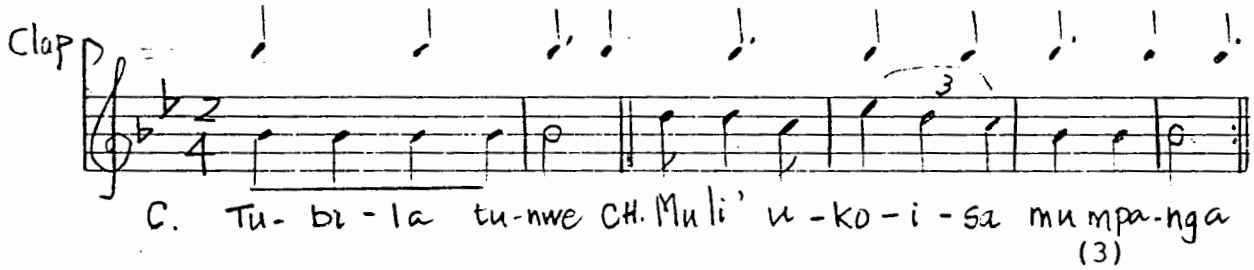
Fig 9: (Numbers and/or French time-names can be used to establish the gaps between each clap before using speech-tones. The circled numbers represent the clapped pulses.)



This basic form of the standard pattern can be heard as a stick rhythm played by the Tonga people on the Sound of Africa series TR 41.B.3.

The song in Figure 10 below can be learnt at this stage, because it is accompanied by the most basic form of the standard pattern.

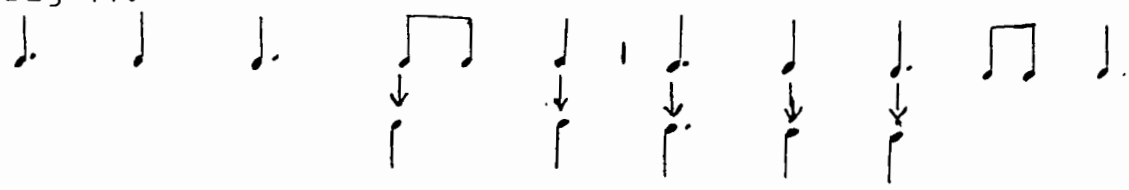
Fig 10:



Variations of the Standard Pattern

The teacher now introduces the variation which relates to the standard pattern thus:

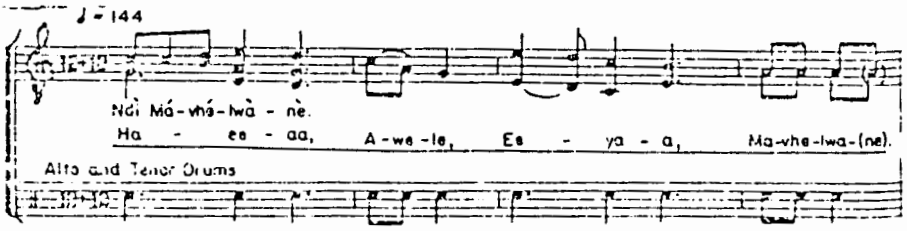
Fig 11:



This variation occurs as a clap accompaniment to the following Venda song:

3) A.M.Jones: "African Rhythm", Africa, Vol 24 No 1, p. 34

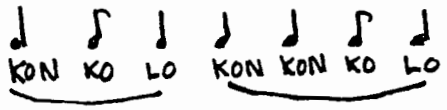
Fig 12:



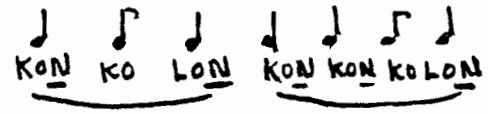
(4)

Another variation to the standard pattern is ♩ ♪ ♩ ♩ ♩ ♪ ♩

This pattern is found in Nigeria and is memorized through the use of mnemonics as follows:

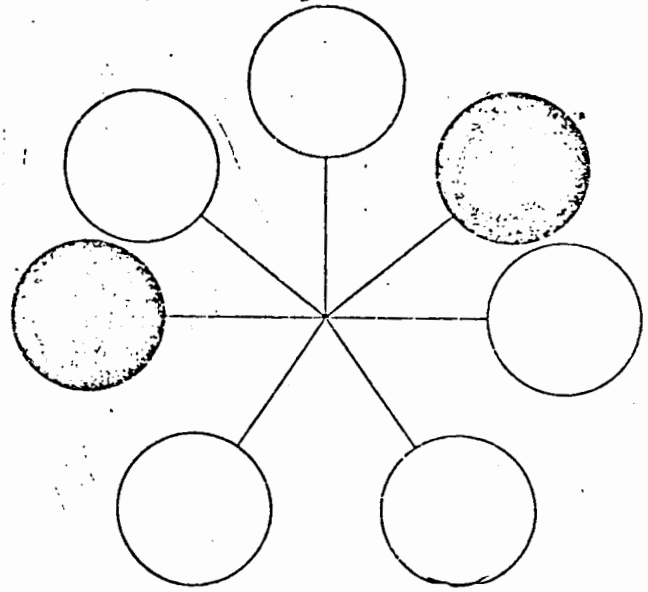


When teaching this pattern 'LO' should be adjusted to 'LON', so that it is not confused with 'KO'. Putting a slight stress on 'N' facilitates accuracy because it forces on to be aware of the ♪ subdivisions:



The KON - KO - LON cycle can be represented as in Figure 13 below, the blackened spheres denoting 'KO'.

Fig 13: (This diagram is the logo of the Kaleidophone Records label, issued by the Traditional Music Documentation Project, 3740 Kanawha Street, Washington.)

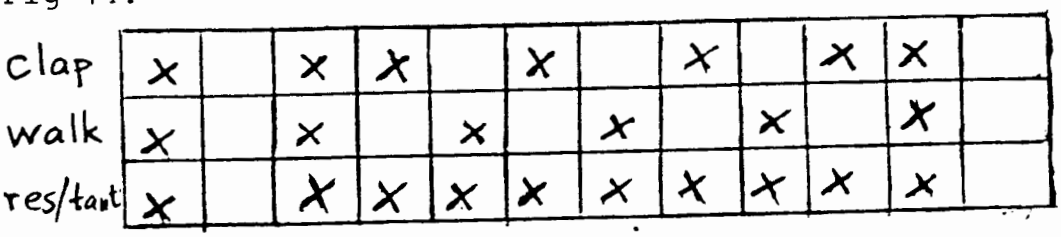


(4) J.Blacking: "Tonal Organization in the Music of Two Venda Initiation Schools", Ethnomusicology, 1970, Vol 14 No 1, p. 34

One can start the pattern anywhere in the cycle, for example, on the first blackened sphere.

This variation can also be walked to:

Fig 14:



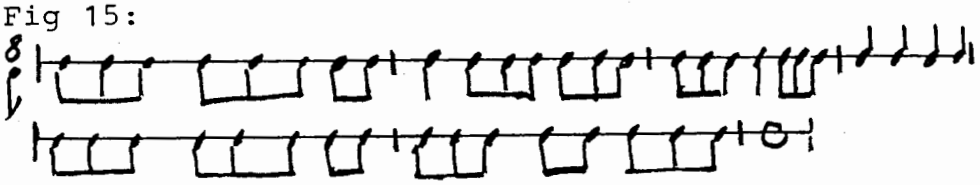
In Figure 14 above, as in all other similar examples, the rhythms can also be experienced on two percussion instruments of contrasting timbre, for example, the bead rattle and the wood block, making an effective ensemble.

DEVISING RHYTHMIC EXERCISES IN THE AFRICAN IDIOM FOR USE IN THE CLASSROOM

Preliminaries

The rhythmic patterns in Orff-Schulwerk Music for Children, Book V, (See Nos 34 - 42, pp. 74 - 80 and pp. 81 - 94.) provide a good starting point for the use of rhythmic exercises in the African idiom in the classroom. No 43, for example, is a rhythmic pattern which has a combination of additive and divisive pulse-groupings. (See Figure 15.)

Fig 15:



Bar 1 is $\frac{3 + 3 + 2}{8}$ hence additive

2 is $\frac{2 + 3 + 3}{8}$ hence additive

3 is $\frac{3 + 2 + 3}{8}$ hence additive

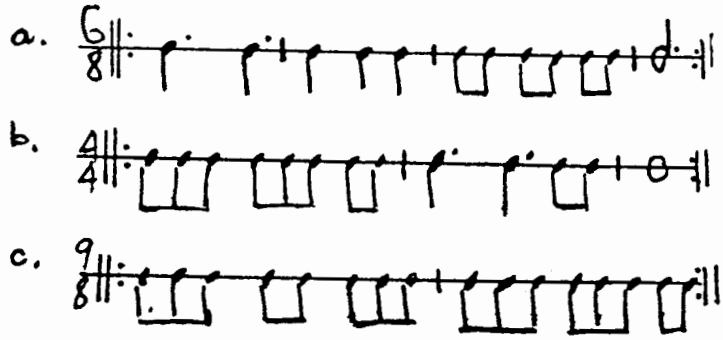
4 is $\frac{2 + 2 + 2 + 2}{8}$ hence divisive

5 is $\frac{3 + 3 + 2}{8}$ hence additive

6 is $\frac{3 + 2 + 3}{8}$ hence additive

Single rhythmic patterns in the African idiom can be devised by clapping irregular note-groupings within a given metre as in Figure 16 below:

Fig 16:



Rhythmic Ensembles in the African Idiom

The chief principle underlying any African rhythmic ensemble is the fact that there is always a balance between and appreciation of individual parts and of their effect in combination. Then there is also the appreciation of each rhythm in relation to the underlying guide-beat (very often ♩. or 3 pulses). Fig. 17 below is an example of this. The gankoqui bell plays the guide-beats. The rhythms of the master drum and the song have an interesting relationship with each other and also with the guide-beats.

Fig 17: Typical drumming ensemble pattern, Anlo: Ghana

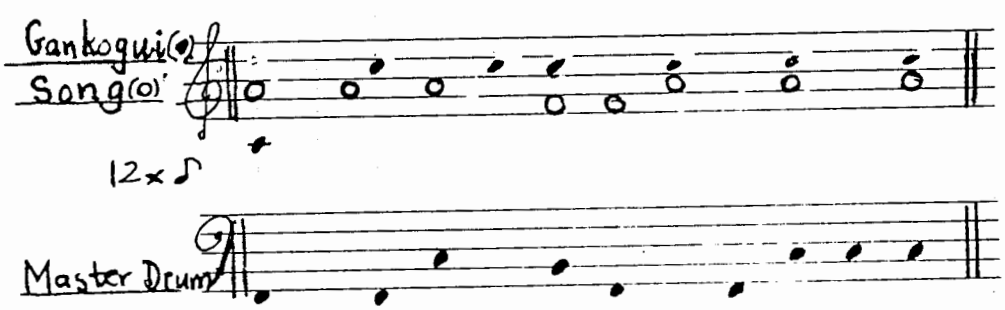
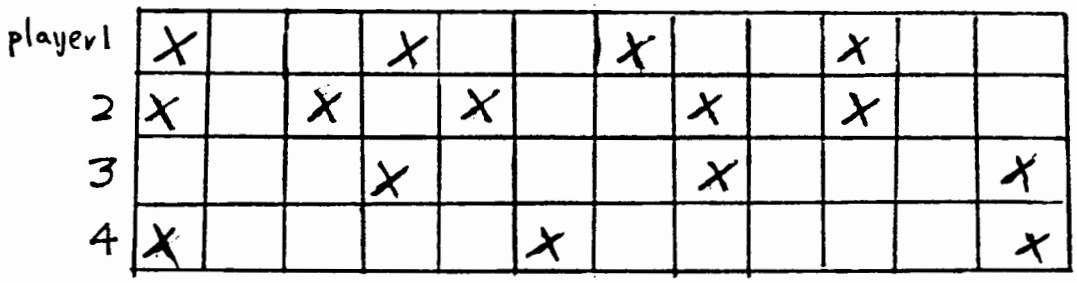


Figure 18 below is an example of a suitable rhythmic ensemble for classroom use. These can be played on instruments of contrasting timbre or clapped. Some more examples can be found in Appendix B.

Fig 18:



African Rhythm and Orff-Schulwerk

Question and Answer Rhythms: The teacher can devise question and answer rhythms using African rhythmic patterns previously taught, for example:

Teacher:

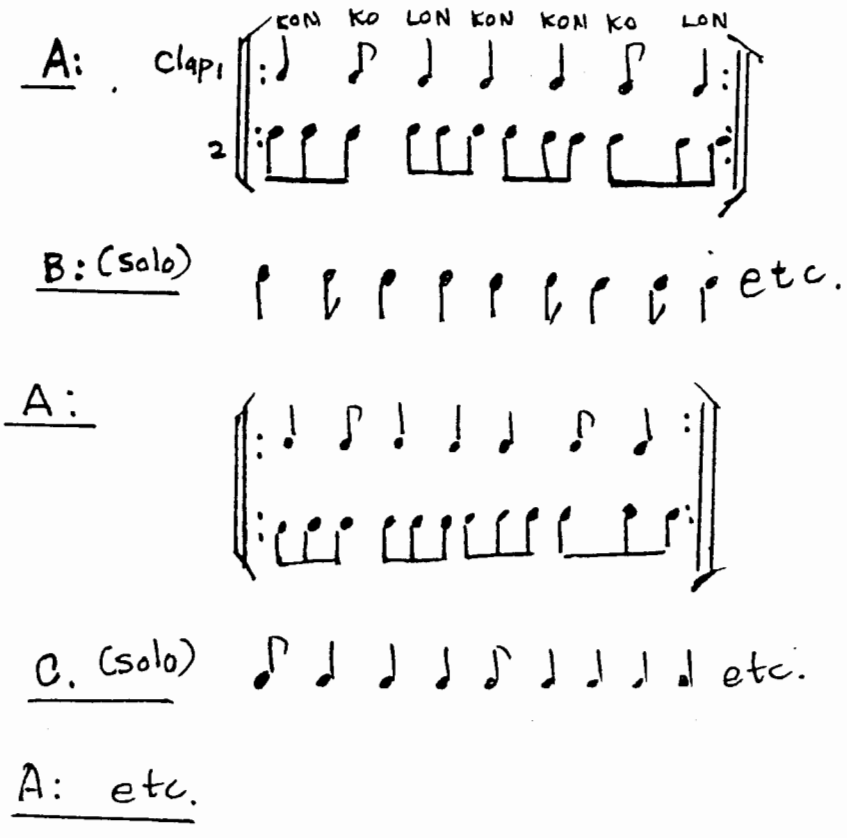
Pupil:

The Rhythmic Rondo: The Orff-Schulwerk rhythmic rondo, like any rondo, is in rondo form, i.e. A B A C A D A, etc. However, in the Orff-Schulwerk rhythmic rondo, A is a group rhythmic ostinato which is either clapped, played on instru-

ments or a combination of instrumental and clap textures; while B is a solo improvization on any melodic or rhythmic instrument.

The African practice of using speech associations in drumming ensembles can be particularly useful here so that B and C can base improvizations on the rhythmic material in A. For example:

Fig 20:

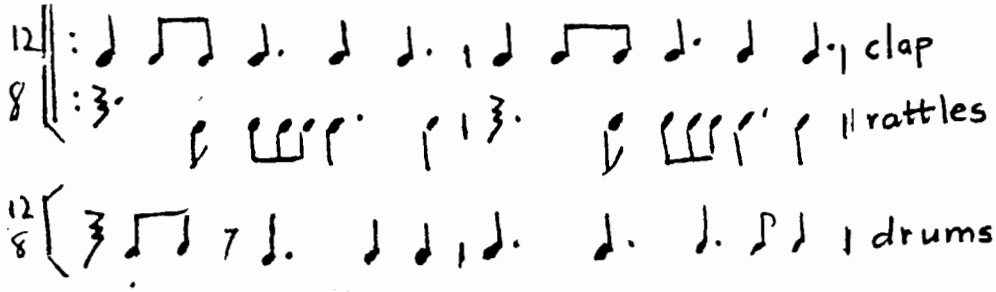


Rhythmic improvization over an ostinato accompaniment: The Orff-Schulwerk use of rhythmic improvization over an ostinato accompaniment is very similar to the practice of drumming ensembles in sub-Saharan Africa.

It should be remembered that in African rhythmic ensembles the instruments of lighter timbre play the cycle while the instruments of heavier timbre improvize. (See Chapter Three.)

If one wishes to be as authentically African as possible when using the rhythmic improvization over an ostinato, one should let the clapping and the rattles participate in the ostinato while the drums improvize.

As rhythmic cycle in the African Idiom. Devised by the author.



9.2 ASPECTS OF AFRICAN SONGS IN THE CLASSROOM

Pronunciation Guide (Nguni languages):

Pronunciation of vowels

a is like 'a' in f<u>a</u>ther
i is like 'ee' in sl<u>ee</u>p
e is like the beginning of the dipthong in 'wear'
o is like 'o' in not*e*
u is like 'u' in s<u>u</u>per

Pronunciation of consonants

ph is pronounced as 'p' in 'paper'; e.g. unopopi (doll)
th is pronounced as 't' in 'tie'; e.g. isithethe (tradition)
kh is pronounced as 'k' in 'king'; e.g. khukhumala (swell)
hl is pronounced as the Welsh 'll'; e.g. hlohloza (itch)
ty is pronounced as 'ch' in 'cherry'; e.g. isityhamtyham (stupid fellow)

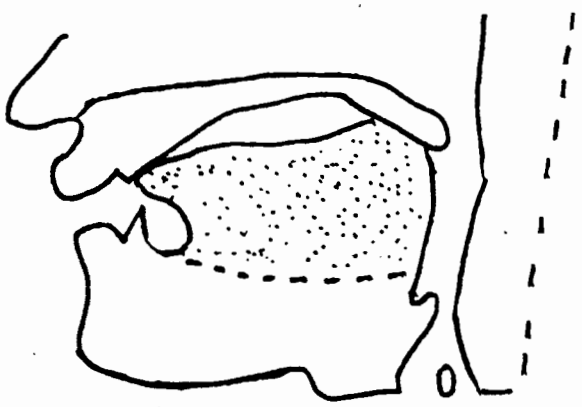
The Clicks

Nguni languages have three clicks, namely the dental click, 'c', the palato-alveolar click, 'q', and the lateral click, 'x'.

To pronounce the dental click 'c', the top of the tongue just touches the top front teeth, as in Figure 21 below. Air is

forced out over the tongue, letting the tip to slide over the teeth, causing the dental click sounding like 'ts'.

Fig 21: Tongue position for the dental click, 'c'.

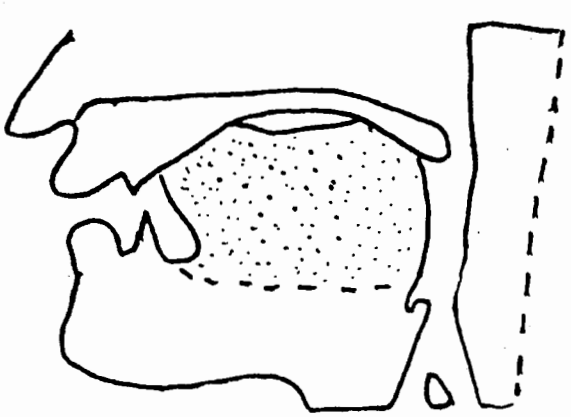


Below is a list of words which require the dental click:

icici (ear ring)
coceca (be pure)
ncama (give up)
ncini (small)
ncambacha (feel at home)

To pronounce the palato-alveolar click, i.e. 'q', the back of the tongue is raised to touch the soft palate; the tip of the tongue is pressed tightly against the division between the teeth ridge and the hard palate; the centre of the tongue is depressed and the tip is then drawn sharply downwards.

Fig 22: Tongue position for the palato alveolar click, 'q'.

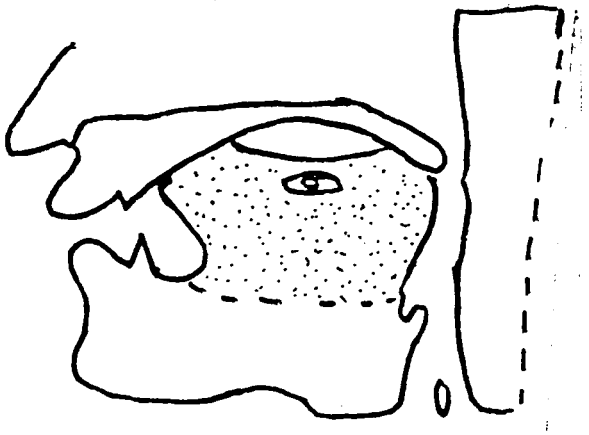


Below is a table of words which require the palato-alveolar click:

iqaqa (a polecat)
umququ (husk; chaff)
uǫhoqho (wind-pipe)
nqunqu (chop up)
inkqayi (bald head)
ingqungquthela (congress)

To pronounce the lateral click, i.e. x, the tip of the tongue remains in the same position as the palato-alveolar click. One side of the tongue is put against the side-teeth and is released by suction, causing the lateral click.

Fig 23: Tongue position for the lateral click, 'x', with the area of clicking marked ⊙



Below is a list of words which require the lateral click:

xoxa (discuss)
xukuxa (gargle)
ixoxo (bullfrog)

The consonants plus b and r (Xhosa), and the three clicks, sound significantly different with and without their 'h'. Speakers of other African languages are not easily aware of this differentiation in Nguni languages. The consonant with 'h', is by and large pronounced as it would be in English; without the 'h' there is noticeably less ejection of air. An example of a word pair with this 'h' differentiation is the Xhosa umbhali ('inter') and umbali ('one who counts'). A similar example in Zulu is bola ('to rot') and bhola ('to bore'). There are many similar word pairs.

(5) F.S.M.Mncube, Xhosa Manual, Juta & Co., Johannesburg

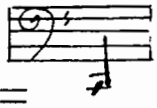
HOW TO TEACH AFRICAN SONGS

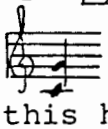
One of the problems which the teacher is bound to experience when teaching African songs is pronunciation. It can be partly solved if healthy habits are cultivated from the start by both teacher and class, that is, if they at least try to pronounce correctly. Of course, it can only be completely solved if fluency in the language is acquired through years of study. However, a tape-recording of song-texts read by a speaker of the language, or even a 'live' speaker, can also be an invaluable aid in the classroom.

The non-African schoolchild normally does not get enough exposure to African music on the media so that when it is faced with the challenge of learning an African song in school, the child may find it quite formidable. Some ways and means of resolving this problem are discussed below:

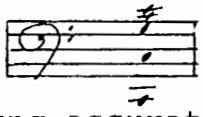
Teaching Traditional Nguni Songs, i.e. Songs Influenced by Bow Tonality

The hexatonic scales of the Nguni will sound strange at first becuase they do not employ the notes of the diatonic major/minor tonal system. The teacher should play the open fundamental on the bow and ask a group of children to hum it at a comfortable register:

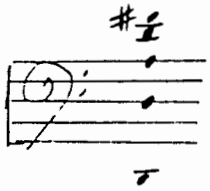
i.e. the teacher plays: 

children hum: 

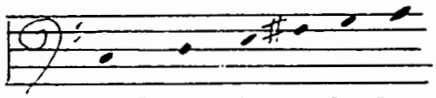
The other notes of this harmonic series are treated similarly, but care should be taken with the third and fifth partials, namely, E and G, because they are slightly flatter than the corresponding notes in the equal temperament tuning system. Careful listening to the upper partials of the bow should ensure accurate duplication of these notes. When the open fundamental with its harmonic series,

i.e. 

is sung accurately, with the children singing within their range, the teacher proceeds to the stopped fundamental, with its harmonic series and teaches it similarly,

i.e. 

The complete scale is now presented as a sequence,

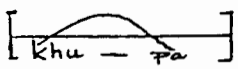
i.e. 

which the class is asked to sing from the lowest to the highest notes.

Teaching the above scale with the bow instead of the piano is all-important, because the equal temperament tuning of the piano and the natural bow harmonics are not the same.* It is therefore necessary to make a simple bow as described in Chapter Eight.

Teaching the Vocal Glide

It is necessary for the class to use glides when singing Nguni songs because of the effect of the depressor consonant (indicated by ↓) in the spoken language, which necessitates a glide from a low to a high intonation. An example of the depressor consonant can be found in the word kẖupà, which is pronounced to the following intonation, because of the depressor consonant:



The use of the glide in Western music is regarded as bad singing.

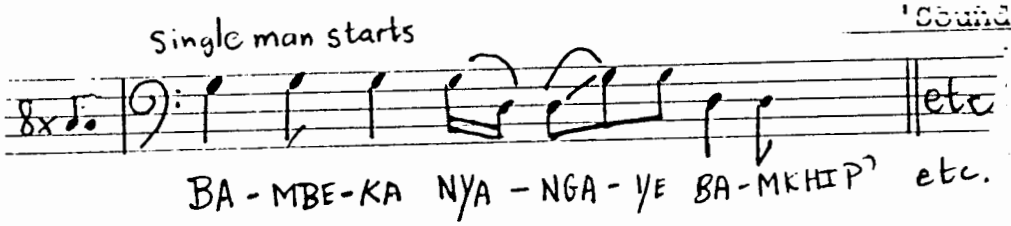
Before teaching the glide, the teacher should let the class hear it, for example, on the Orff-Schulwerk timpani which is tuned by turning the head in a clockwise direction. The gradual shift from one tone to another can be clearly heard. It is also possible to execute a glide on any stringed instrument, for example, the guitar, by sliding a finger up or down across the frets.

The teacher should teach short glides first which are Major seconds apart. The progression from the lower note to the higher note should be gradual so that quarter tones can also be encompassed. The glide can be conducted by the teacher by an upward hand movement (ascending) or a downward hand movement (descending).

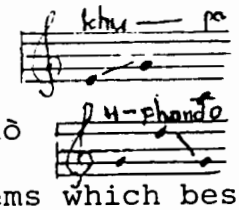
* The author has found this suitable for use in the secondary school. It is generally far too advanced in the primary school.

Usegugil' ubaba: Zulu wedding song

Fig 24: (Transcribed from TR 12.A.1.) Transcribed by the author from the 'Sound of Africa' series



Once the glide has been mastered the class now sings Nguni words to various note-combinations. Below are two examples:



khupà

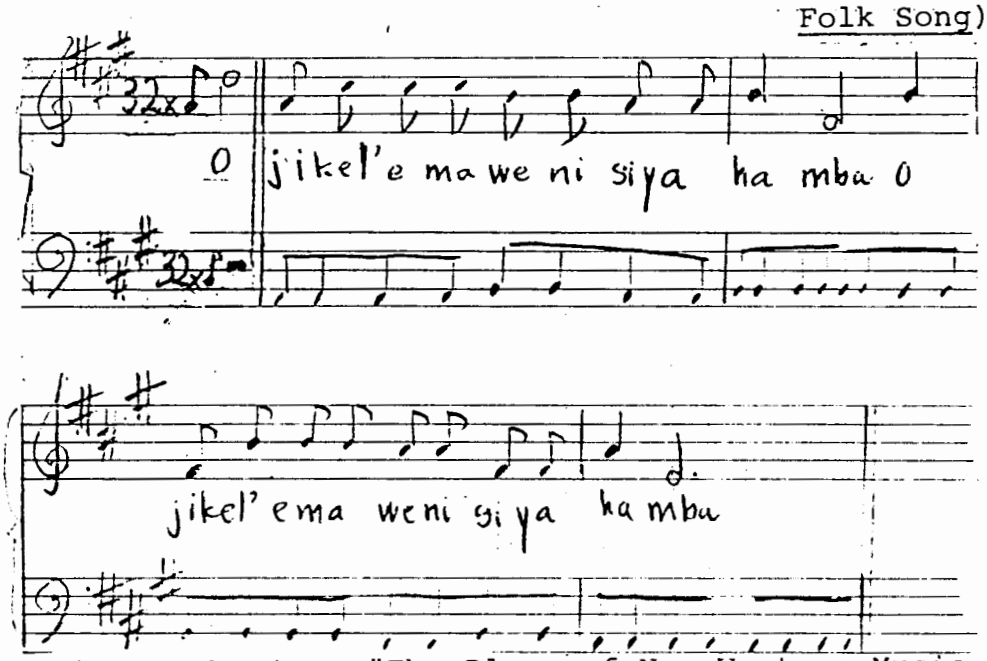
ùphondò

The problems which beset the non-African class when learning an African song are not unlike those one experiences when learning a foreign language. Nketia believes that the child's natural capacity for imitation, and the fact that he is often open-minded and ready for musical exploration, together can help him to acquire the basic techniques of music learning faster than the adult. (6)

Bow Songs in the Classroom

Figure 25 below uses the typical Xhosa tonality, which is an upward or downward movement by a tone.

Fig 25: Jikel 'Emaweni: Xhosa song. Transcribed by T. Williams and P. Maselwa. (African Folk Song), p.5). The bow-port was arranged by the author.



(6) J. Nketia: "The Place of Non-Western Music in General Education", Report of the Proceedings of the First National Conference, Australian Society for Music Education, Perth, 1970, p. 145

If a song such as this is demonstrated in the class with the aid of a bow, this enables them to see and hear the shift from one harmonic root to another. There is opportuni ty for creativity because the individuals can also make up their own accompaniment ostinati patterns on the bow.

Traditional Work Songs in the Classroom

Traditional work songs, for example "We Majola" (See Appendix C) remain incomplete if they are sung without movement, because the movement is embodied within the framework of these songs. To stimulate a work movement is artificial, and the class should be actively involved in a physical activity while singing work songs. These songs, like the Western influenced "isitibili" and mbholoho, discussed below, correlate very well with Carl Orff's principle that music education should be based on movement, speech and music.

Teaching Xhosa Isitibili and Zulu Maskanda

Isitibili and maskanda, as discussed in Chapter Two, are tonally Western influenced, brought about by the missionaries who taught the Nguni Wesleyan hymns. Beacuse the Ngunis' own singing style is based on harmony as found on the bow, they readily adapted themselves to the 'new' harmony of the church. This 'new' harmony flowed over into their own music and also became part of their musical culture, so that this style is now known as "isitibili" and "maskanda" by the Xhosa and Zulu respectively.

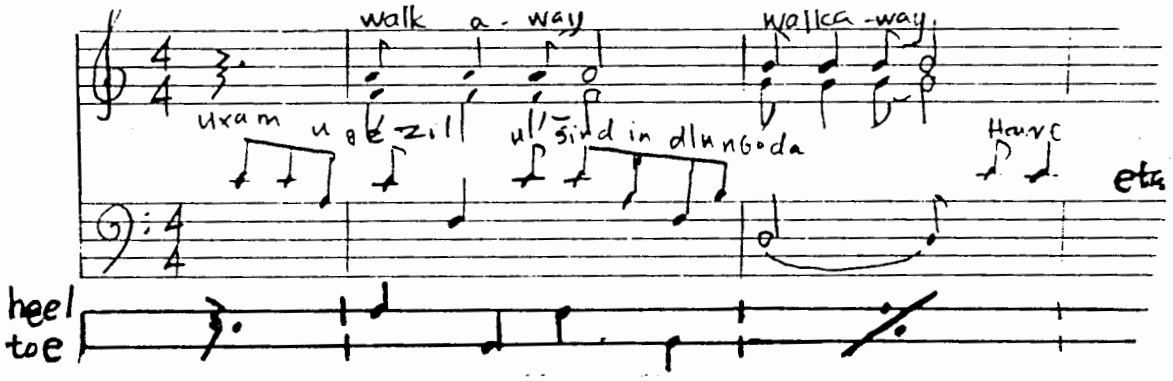
These song-types and most others are always accompanied by movement. This may be stamping, sliding or shuffling the feet or a pattern which combines two or more of these and/or clapping. There are many set movement patterns with which the participants are familiar, but at times new ones are improvized. All these movements serve as a percussive contrastive part to the singing. Figure 26 is an example of a typical Xhosa isitibili.

Babukel': Xhosa isitibili:

Fig 26: ♩ = right foot

♩ = left foot

Transcribed by the author from the "Sound of Africa" series. TR.26.A.5.



The teacher should teach the movement patterns while the pupils sing, to establish the metre. The pupils can learn the movement to the above song by imitating the teacher and/or by moving to the command "heel, toe". They should feel all the pulses in order to get a feeling for the song.

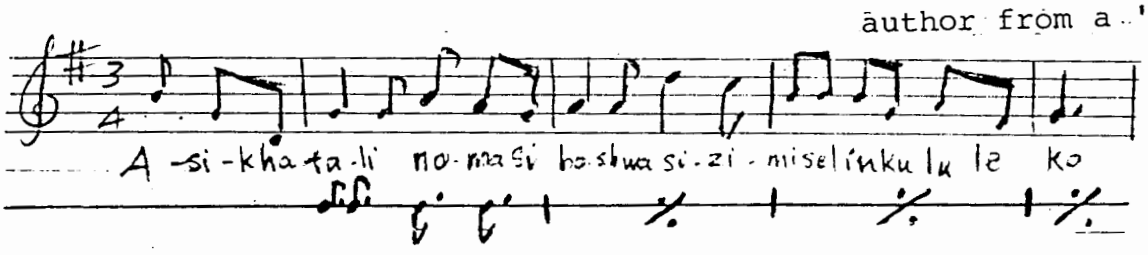
Once the song is learnt thoroughly, the class moves to it, always keeping the ensemble accurate. The movement stresses of many songs of this type are not as easy as cited in Figure 26 above, because they form cross-rhythmic relationships with the metre of the song. This presents an ideal opportunity to exercise co-ordination and rhythmic perception. The song in Figure 27 below can be taught as a consolidation exercise to the syncopation involving groups of two and three, discussed earlier in this chapter.

Fig 27: ♩. = right foot; ♪ = left foot;

h = heel st = stamp

Asikhatali (extract)

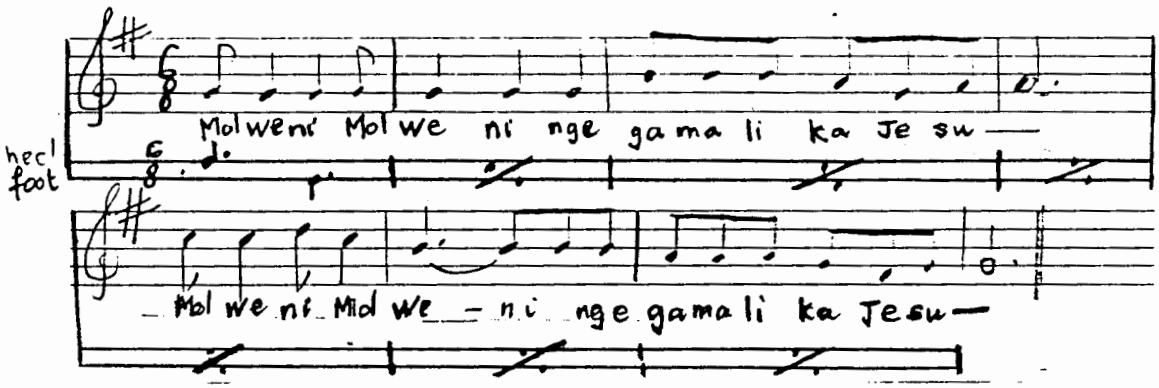
Xhosa protest song
Transcribed by the author from a 'live' performanc by St. Anthony's Choir, Langa.



There are also examples of this type of song in which there is rhythmic crossing between the divisive metre of the foot accompaniment and the additive metre of the song. Figure 28, cited earlier (in Chapter Seven), is one such example.

Fig 28: (The foot movements use alternate feet.)

Molweni: Xhosa Liturgical Song. Transcribed by the author from a 'live' performance by "Teenage Harmonies", Guguletu.



9.3 AFRICAN HARMONY IN THE CLASSROOM (SECONDARY SCHOOLS)

The Skipping Principle

The skipping principle, as discussed in Chapter Six, refers to the harmonization of a given note in a scale with the next note but one.

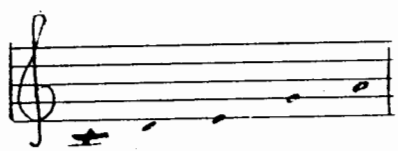
The class uses various scales, both pentatonic and hexatonic, and combines each note with the next note but one. From the two-note chords formed they then select two or more chords to make up a harmonic progression which should be repeated in an ostinato.

Some of the rhythms discussed earlier in this chapter should be used in order to add rhythmic interest to the ostinato.

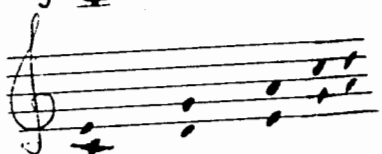
These rhythms are illustrated in Figures 29 and 30 below.

Fig 29:

(a) pentatonic scale:

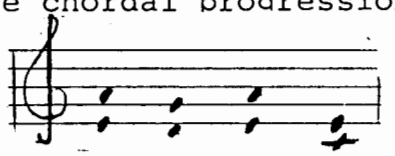


(b) two-note chords:

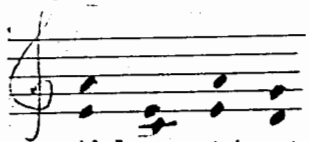


(c) possible chordal progressions:

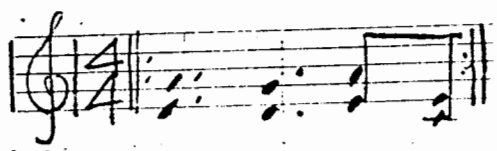
(i)



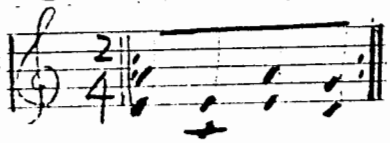
(ii)



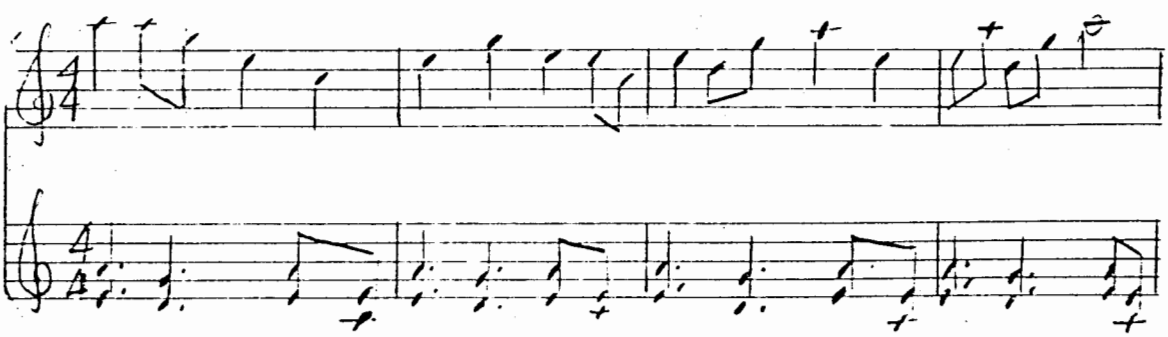
(d) (i) possible ostinato for c(i):



(ii) possible ostinato for c(ii):



(e) (i) possible improvized melody above d(i):



(ii) possible improvized melody above d(ii);

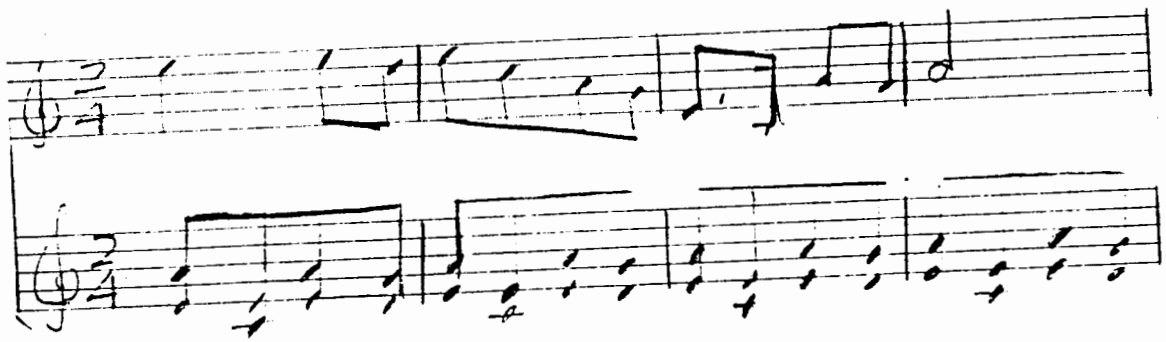
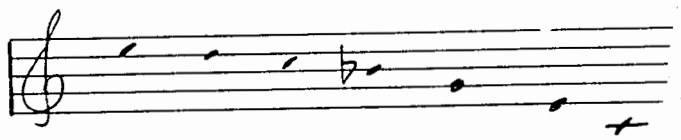
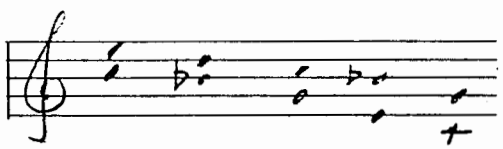


Fig 30:

(a) scale used by the Gogo (Tanzania):

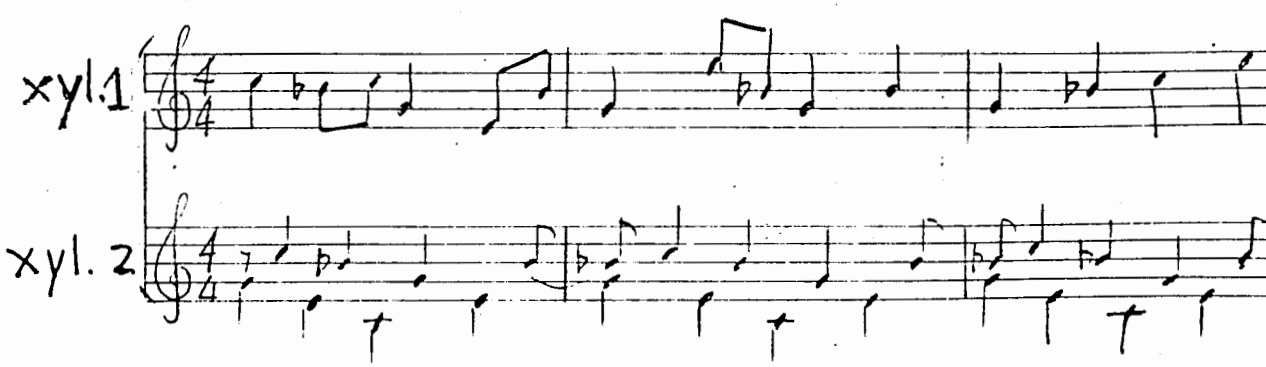


(b) possible chordal progression:



(c) possible ostinato:

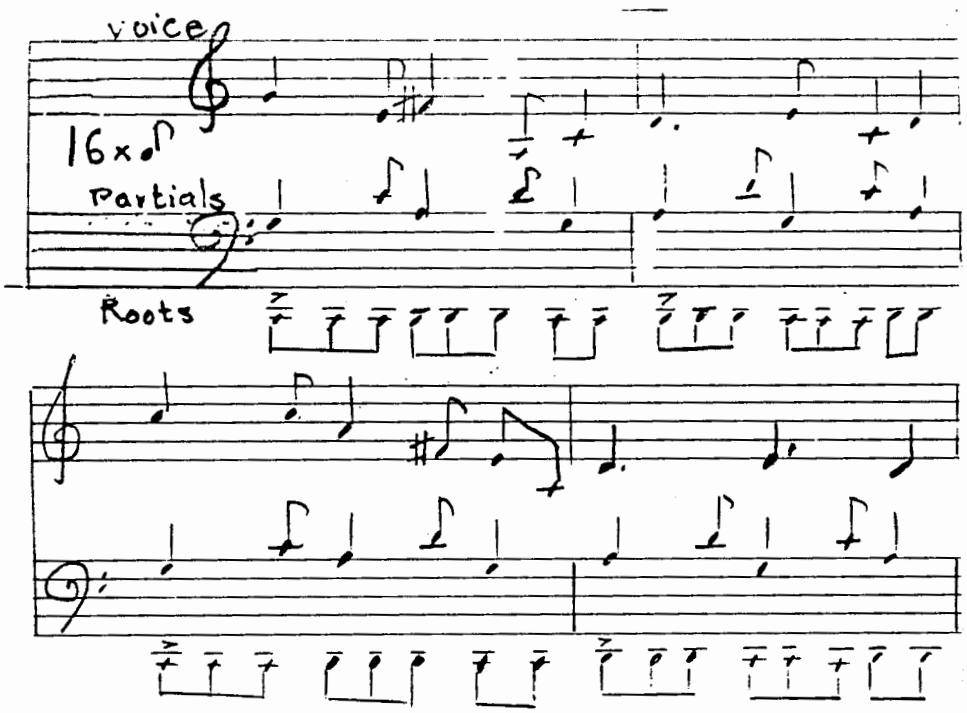
(d) possible improvized melody above this ostinato:



Bow Harmony

Bow harmony played in cycles can be used as a framework for vocal improvization, for example:

Fig 31: Vocal improvization by the author.



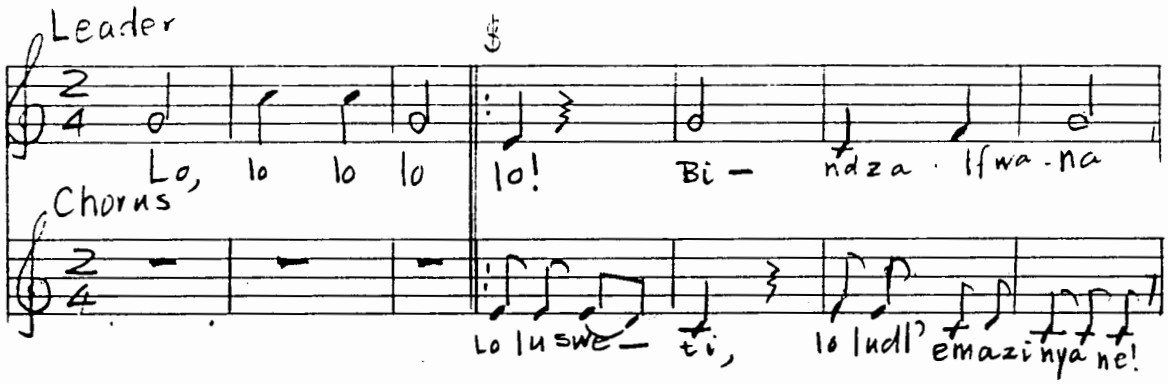
Class Experience of Vocal Antiphony

African vocal antiphony can be used to illustrate the concepts of harmony and counterpoint because the overlapping vocal parts are contrapuntal. Figure 32 below below represents this style. The non-African will find singing choral antiphony unfamiliar because it is seldom found in Western music. This is one gap in Western music education which can be filled by the use of African music in the school The scope for improvization in the 'call' phrases provide an opportunity for creativity (see Ch.5). There are many examples of South African music which is antiphonal. Nothing is more 'African' than the close feeling of co-operation that antiphonal music encourages. This builds musical interdependence and close co-operation of the participants.

Fig 32:

Extract from Umlalatelo : Swazi Lullaby

Arranged by D. Rycroft. (7)

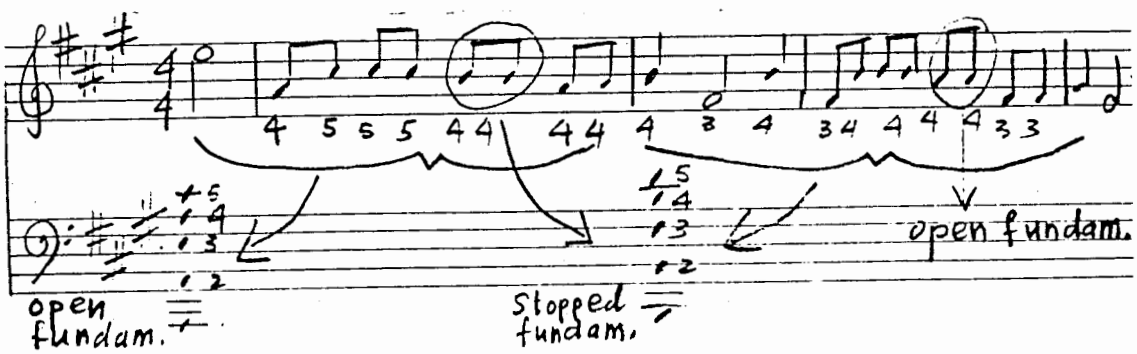


Towards Extending the Knowledge of Musical Acoustics Through the Use of the Bow

Musical acoustics is often taught too theoretically and the teaching of the harmonic series is no exception. The uhadi can be made by the class (as described in Chapter Eight) and they should be able to hear the harmonic series quite clearly by adjusting the distance of the resonator to or away from their chests.

The song in Figure 33 can be particularly useful as an introduction to the teaching of the harmonic series.

Fig 33:



(7) D. Rycroft: Personal communication.

The mouth-bow (as described in Chapter Eight) is also an invaluable teaching aid to the harmonic series because the player can obtain the partials above the fundamental right inside his mouth. The upper harmonics are more audible than those heard on the uhadi.

Chapter Ten

Teaching Survey

THE SURVEY

The survey was directed at non-African students with the purpose of assessing the following statistically:

(a) knowledge of African music;
(b) interest in African music;
(c) level of commitment to improve skills;
(d) attitudes towards African music.

To the best of the author's knowledge, this type of survey had not been conducted before in South Africa.

SELECTION OF THE SAMPLES

Two samples were taken, a Standard VIII class comprising fifteen students at Plumstead High School (hereafter referred to as Group A) and a group of ten first-year teacher trainees at Hewat Training College, Crawford (hereafter referred to as Group B).

The main criteria for the choice of the above groups were that they both have regular lessons in music education, namely, two periods per week, a prerequisite for answering the questionnaire (See Sample Questionnaire, Appendix A.) and that both groups were available for the survey at the time that it was undertaken.

Previous Knowledge of Group A

Group A is taught Music in an historico-geographic way. Their music teacher informed the author that they had finished the music of Spain and were busy with the music of England. She adopted this approach in all her classes because, she said, the students were particularly reluctant to sing or to participate actively in music-making.

Previous Knowledge of Group B

Group B has been taught many English songs; how to read in staff-notation, and basic method of music education.

Further Aspects of Groups A and B

Neither group has been part of a previous similar experiment. Neither group has had African music as part of the normal music education programme.

THE QUESTIONNAIRE

The questionnaire was presented to each group twice, the second time two weeks after the first, during which time each group had had four lessons on African music, given by the author.

This was done to assess growth of knowledge, growth of opinion, growth in attitude and growth in the level of comitment towards African music. At no time was any assistance given by the author and it was emphasized that there were no correct or incorrect answers. Each group was encouraged to respond as honestly and as objectively as possible.

The candidates ticked each item in the appropriate space corresponding to their own feelings and/or knowledge of the item.

The author was particularly careful with word usage in the questionnaire, avoiding the use of words such as "traditional", "culture", "indigenous", et cetera.

The first presentation of the questionnaire is referred to as the Pre-Test Questionnaire and the second presentation is referred to as the Test Questionnaire.

Discussion of the First Part of the Questionnaire

In this part of the questionnaire the author wished to ascertain previous knowledge of various aspects of African music. In order to assess this, the students (hereafter referred to as "subjects") were asked to rate their knowledge of African music according to a 0 - 4 rating scale:

0 = no knowledge
1 = a little knowledge
2 = moderate knowledge
3 = a good deal of knowledge
4 = extensive knowledge

The questions were:

1. Do you know what African tribal music sounds like?
2. Do you know what kind of instruments are used in African tribal music besides drums?
3. Do you know the kinds of subjects that African tribal songs are about?
4. Do you know how to play an African musical instrument?
5. Do you know what kind of rhythm is found in African music?

Results of the First Part of the Questionnaire

The scoring is calulcated according to the formula $N \times R$, where N is the number of subjects and R is the rating scale. For example, if for item one, eight subjects give a 1-rating, the score is $8 \times 1 = 8$.

The total score for each item is calculated by adding together all the $N \times R$ scores. The maximum score for Group A is $N_{(maximum)} \times R_{(maximum)}$, i.e. $4 \times 15 = 60$. Similarly, the maximum score for Group B is $4 \times 10 = 40$.

Any score can hence be calculated as a percentage of the maximum score.

The data collected from the first part of the questionnaire are as follows:

Table 1: Knowledge of the Sound of African Tribal Music

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0	1	6.6	0				3	30	0			
1	8	53.3	8	6	40	6	5	50	5	1	10	1
2	6	40	12	3	20	6	2	20	2	8	80	16
3				4	26.2	12				1	10	3
4				2	13.3	8						
TOTAL:	15		20	15		32	10		7	15		20

Key:

R = rating

N = number of subjects

% = percentage

Sc_1 = Pre-Test score

Sc_2 = Test score

Data From Group A

Pre-Test Score: Eight subjects (53,3% of the total) gave a 1-rating; six subjects (40% of the total) a 2-rating. This shows a range from a little to moderate knowledge and reflects some exposure to African music either on the media and/or in the environment, and possible stage shows, e.g. "IpiTombi".

Test-Score: A 20% growth between the pre-test and the test scores reflects an increasing knowledge of what African tribal music sounds like.

Data From Group B

Pre-Test Score: Five subjects (50% of the total) gave a 1-rating; two subjects (20% of the total) gave a 2-rating. This, as in Group A (Pre Test Score), shows a range from a little to moderate knowledge and also shows exposure to African music on the media and the local environment.

Test Score: A 32,5% growth between the pre-test and test scores reflects an increasing knowledge of this item.

Table 2: Knowledge of the Kinds of Music Instruments Used by the Africans

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0	3	20	0	1	6.6	0	5	50	0			
1	11	73.3	11	2	13.3	2	5	50	5	4	40	4
2				7	46.6	14				4	40	8
3	1	6.6	3	5	33.3	15				2	20	6
4												
TOTAL:	15		14	15		31	10		5	10		18

Data From Group A

Pre-Test Score: Eleven subjects (73,3% of the total) gave a 1-rating. It is possible that the only African musical instruments they know about are the drums.

Test Score: The distribution of ratings is more even. A growth of 28,3% shows that there is an increase in knowledge of this item.

Data From Group B

Pre-Test Score: Five subjects (50% of the total) gave a 0-rating and five (50% of the total) a 1-rating. This probably shows better realization of the wide scope of African musical instruments.

Test Score: The distribution of results is more even (as in Group A, Pre-Test Score). A growth of 32,5% is comparable with the growth in Group A, and shows interest in this field of African music.

Table 3: Knowledge of the Subjects of African Song Texts

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0	5	33.3	0	1	6.6	0	5	50	0	1	10	0
1	7	46.6	7	3	20	3	5	50	5	1	10	1
2	3	20	6	5	33.3	10				6	60	12
3				5	33.3	15				2	20	6
4				1	6.6	4						
TOTAL:	15		13	15		32	10		5	10		19

Data From Group A

Pre-Test Score: Their response ranged from little to moderate knowledge.

Test Score: This score reflects a greater level of interest in and awareness of the content of African song texts. A growth of 31,7% is very positive.

Data From Group B

Pre-Test Score: Their ratings ranged between no knowledge

and little knowledge.

Test Score: This score correlates strongly with the test-score of Group A and also reflects a greater level of interest in and awareness of the content of African song-texts. A growth of 35% is also comparable with the growth of Group A.

Table 4: Knowledge of How to Play an African Musical Instrument

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
	R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
	0	10	66.3	0	5	β3.3	0	10	100	0	6	60	0
	1	4	26.6	4	3	20	3				1	10	2
	2	1	6.6	2	4	26.6	8				1	10	2
	3				2	13.3	6						
	4				1	6.6	4						
TOTAL:		15		6	15		21	10		0	10		5

Data From Group A

Pre-Test Score: Tne subjects (66,7% of the total) gave a 0-rating, a realistic response due to their limited contact with traditional African musical instruments. Four subjects (26,7% of the total) gave a 1-rating and two (13,3% of the total) a 2-rating. These six subjects probable over estimated their knowledge of this item and/or did not wish to expose their ignorance of how to play an African musical instrument.

Test Score: The growth in response to this question was favourable, with five subjects (33,3% of the total), half

the number of the pre-test score, giving a 0-rating.

Data From Group B

Pre-Test Score: All ten subjects gave 0-ratings for this item. This is a realistic response and it reflects a lack of exposure to indigenous African musical instruments.

Test Score: Six subjects (60% of the total) gave 0-ratings. This probably indicates a desire on their part to learn much more about this aspect of African music. Four subjects (40% of the total) gave ratings between 1 and 2.

Table 5: Knowledge of the Kind of Rhythm in African Music

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0	7	46.6	0	3	20	0	8	80	0	1	10	0
1	4	26.6	4	3	20	3	1	10	1	6	60	6
2	4	26.6	8	2	13.3	4	1	10	2	2	20	4
3				4	26.6	12				1	10	3
4				3	20	12						
TOTAL:	15		12	15		31	10		3	10		13

Data From Group A

Pre-Test Score: The ratings ranged from 0 to 2 with a concentration (46,6% of the total) on 0. The subjects giving 1- or 2-ratings probably did this because they associate African rhythm with drumming, thinking that these are so synonymous as to be indistinguishable.

Test Score: The distribution is more even, and ranges from 0 to 4. The growth between the Pre-Test and Test Scores probably indicates that the pupils know more specifically what is referred to by the term "rhythm". An overall growth of 31,6% is positive and shows that learning has taken place in this area.

Data From Group B

Pre-Test Score: As in the Pre-Test Score for Group A, the concentration of ratings (80% of the total) was on 0. The ratings of the other 20% ranged from 1 to 2. This correlates with the Pre-Test Score of Group A.

Test Score: The concentration of ratings shifted from 0 to 1. The growth between the Pre-Test and Test Scores is 25%. This is comparable with the growth of Group A in this item.

Discussion of the Second Part of the Questionnaire

The second part of the questionnaire concentrates not so much on knowledge of African music (as in the first part) as on the following:

(a) interest;
(b) desire;
(c) intention;
(d) commitment.

The Likert (1) method of testing was used. According to this method an opinionative question is put and the subject is asked to place a tick in the space which most closely reflects his/her feelings on the questions asked, for example:
"I like the sound of African drums."

Strongly Agree	Agree	Uncertain/ Neutral	Disagree	Strongly Disagree
		✓		

(1) W.B.Crano and M.B.Brewer: Principles of Research in Social Psychology, 1973

The ratings are weighted by the questioner, who attaches the most value to the most ideal response and the least value to the least ideal response. In this case the author used the same rating scale of 4 to 0 as in the first part of the questionnaire, i.e.

4 = strongly agree
3 = agree
2 = neutral/uncertain
1 = disagree
0 = strongly disagree

In the example above, therefore, the subject will score a 2-rating for an uncertain/neutral response.

Where the ideal response is strongly disagree, the rating system is reversed, i.e.

4 = strongly disagree
3 = disagree
2 = uncertain/neutral
1 = agree
0 = strongly agree.

The question below is an example:
"We should not pay any attention to the music of other peoples."

If the subject agrees, his rating is 1, according to the reversed rating scale.

In this section of the questionnaire, as in the first, the author is looking for an increasing tendency towards 4, the ideal response, between the Pre-Test and Test Questionnaires.

The following questions were asked: (These followed directly after the first part of the questionnaire.)

6. It's about time I was taught more about African music.
7. I like the sound of African drums.
8. I would like to learn more about African rhythms.
9. Xhosa songs appeal to me.
10. If I had to choose between learning a Xhosa song and an English song, I would choose to learn the English song.

11. I would like to know more about Africans by studying their song-texts.
12. If somebody showed me how to make Tswana pan-pipes, I would try to make my own as soon as possible.
13. If I had the choice between learning the piano and an African thumb piano (mbira), I would choose the thumb piano.
14. African musical instruments, besides the drums, deserve much more recognition by us than in the past.
15. If I could choose between a good record of African songs or a record of 'pop' songs, I would choose the recored of African songs.
16. We should be far more sensitive to the music of other peoples.
17. Although we ought to know more about African music we should devote much more of our time towards our own.
18. I would like to join a choir to sing African tribal songs.
19. I would like to form my own African music group.
20. All school children in South Africa should have the same music syllabus including African, Indian, Malay and Western music.

Table 6: Desire to be Taught More About African Music

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0	1	6.6	0	1	6.6	0						
1	1	6.6	1	1	6.6	1						
2	4	26.6	8	5	33.3	10						
3	9	60	27	7	46.6	21	6	60	18	5	50	15
4				1	6.6	4	4	40	16	5	50	20
TOTAL:	15		36	15		36	10		34	10		35

Data From Group A

Pre-Test Score: Nine of the subjects (60% of the total), agreed that they should be taught more about African music. This is a positive score.

Test Score: There is no difference between the Pre-Test and Test scores - this probably means that their opinions remained the same, i.e. that they wish to be taught more about African music.

Data From Group B

Pre-Test Score: Six (60% of the total) gave an agree rating to this item. This is exactly the same percentage as Group A.

Test Score: The growth margin between the Pre-Test and the Test Score is 2,5%.

Table 7: Liking for the Sound of African Drums

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0												
1	2	13.3	2	2	13.3	2						
2	1	6.6	2	2	13.3	2						
3	11	73.3	33	9	60	27	10	100	30	8	80	24
4	1	6.6	4	2	13.3	8				2	20	8
TOTAL:	15		41	15		39	10		30	10		30

Data From Group A

Pre-Test Score: Eleven subjects (73,3% of the total) gave an "agree" rating to this item. This fairly high percentage may be a reflection of one of the Western attitudes about African music, namely, that it is just drumming.

Test Score: Only nine subjects (60% of the total) gave an "agree" rating here. This probably reflects a shift in attitude towards African instrumental music, brought about partly because the author demonstrated on many other African musical instruments besides the drums in his lessons. As a result, some subjects could have preferred the sound of the mbira, for example, to the drums.

Data From Group B

Pre-Test Score: All ten subjects (100% of the total) gave an "agree" rating here. It shows that they must have heard or seen African drums being played.

Test Score: There was little difference between the Pre-Test

and Test Scores in this group - this shows little change in opinion, unlike Group A.

Table 8: Desire to Learn More About African Rhythm

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
	R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
	0	1	6.6	0	2	13.3	0						
	1	2	13.3	2	1	6.6	1						
	2	6	40	12	2	13.3	4						
	3	6	40	18	10	66.6	36	8	80	24	7	70	21
	4							2	20	8	3	30	12
TOTAL:		15		32	15		41	10		32	10		33

Data From Group A

Pre-Test Score: Six subjects (40% of the total) gave an "uncertain/neutral" rating; six subjects gave an "agree" rating. The class seems to be divided on exactly what "African rhythm" is.

Test Score: The fact that ten subjects (66,6% of the total) now gave an "agree" rating, 26,6% more than in the Pre-Test Score, shows that there is now much more clarity in their minds on the subject of African rhythm. This can be attributed to the fact that the author taught them various African rhythms prior to the Test Questionnaire.

Data From Group B

Pre-Test Score: The fact that eight subjects (80% of the total) gave an "agree" rating means that they seem to have a

better idea of the concept "African rhythm".

Test Score: There is a very small growth between the Pre-Test and Test Scores. This validates the argument that they are more familiar with the term "African rhythm" than Group A, because it is 14,2% higher than the Test Score of Group A.

Table 9: Appeal of Xhosa Songs

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0	4	26.6	0	2	13.3	0						
1	3	20	3									
2	7	46.6	14	11	73.3	22	4	40	8	4	40	8
3	1	6.6	3	2	13.3	6	6	60	18	6	60	18
4												
TOTAL:	15		20	15		30	10		26	10		26

Data From Group A

Pre-Test Score: Seven subjects (46,6% of the total) gave a 2-rating. Four (26,7% of the total) strongly disagreed that Xhosa songs have any appeal.

Test Score: Eleven subjects (73,3% of the total) gave a 2-rating. There was an overall improvement in their rating because only two (13,3% of the total) strongly disagreed.

Data From Group B

Pre-Test Score: Four (40% of the total) gave a 2-rating. This correlates with the Pre-Test Score of Group A. Six (60% of the total) gave an "agree" rating. This represents therefore a more positive Pre-Test Score than Group A.

Test Score: There is no difference between the Pre-Test and Test Scores.

Table 10: Preference for Learning an English to a Xhosa Song

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0	5	33.3	0	4	26.6	0						
1	3	20	3	2	13.3	2				3	30	3
2	3	20	6	5	33.3	10	1	10	2	2	20	4
3	3	20	9	4	26.6	12	9	90	27	3	30	9
4	1	6.6	4							2	20	8
TOTAL:	15		22	15		24	10		29	10		24

Data From Group A

Pre-Test Score: There was an even distribution of results, but five subjects (33,3% of the total) chose a 0-rating, probably because they saw the link between this item and the item in Table 9.

Test Score: This score shows a slight growth towards a 4-rating. The fact that five subjects (33,3% of the total) still gave a neutral response shows that they need much more exposure to Xhosa songs before they will be able to form a definite opinion.

Data From Group B

Pre-Test Score: Nine subjects (90% of the total) gave an "agree" rating to this question, i.e. they prefer to sing English songs. This result is less positive in terms of the ideal response than the Pre-Test Score of Group A.

Test Score: Having been exposed to singing Xhosa songs in the classroom, they were now more able to judge whether they preferred to learn the English to the Xhosa song, or vice-versa. There is a development to a 4-rating, as in Group A, because three subjects (30% of the total) gave an "agree" rating (i.e. "I prefer to learn English songs") and three (30% of the total) a disagree rating (i.e. "I prefer to learn Xhosa songs").

Table 11: Desire for the Study of African Song Texts

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0	2	13.3	0	2	13.3	0						
1	4	26.6	4	2	13.3	2						
2	6	40	12	6	40	12	3	30	6	1	10	2
3	3	20	9	4	26.6	12	7	70	21	7	70	21
4				1	6.6	4				2	20	8
TOTAL:	15		25	15		30	10		27	10		31

Data From Group A

Pre-Test Score: Six subjects (40% of the total) gave a 2-rating; six (40% of the total) gave ratings ranging from "disagree" to "strongly disagree". Only three (20% of the total) showed a desire for studying African song-texts.

Test Score: There is a slight growth here, because three (20% of the total) gave ratings ranging from "disagree" to "strongly disagree". This is three subjects less than in the Pre-Test Score. The number of subjects with neutral ratings remains the same as in the Pre-Test Score (40% of

the total). Five subjects (33,3% of the total) showed a desire for studying African song-texts.

Data From Group B

Pre-Test Score: Three subjects (30% of the total) gave a "neutral" rating. This is appreciably higher than the Pre-Test Score of Group A. The word "studying" must have had negative connotations for Group A.

Test Score: There is an improvement in this score, because seven subjects (70% of the total) gave an "agree" rating and two (20% of the total) a "strongly agree" rating.

Table 12: Desire to Make Tswana Pipes

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0	3	20	0	2	13.3	0						
1	10	66.6	10	4	26.6	4	1	10	1	1	10	1
2				6	40	12	4	40	8	1	10	2
3				3	20	9	5	50	15	6	60	18
4	2	13.3	8							2	20	8
TOTAL:	15		18	15		25	10		24	10		29

Data From Group A

Pre-Test Score: Thriteen subjects (86,6% of the total) gave ratings ranging from "disagree" to "strongly disagree". Only 13,3% gave a "strongly agree" rating. This is partly because the question must have been very remote to them and partly because there is an element of commitment in the question, i.e. "I would try to make my own as soon as possible".

Test Score: The fact that only six subjects (40% of the total) gave a neutral rating shows progress towards the "agree" and "strongly agree" ratings.

Data From Group B

Pre-Test Score: Five (50% of the total) gave an "agree" rating. The fact that four (40% of the total) gave a "neutral" rating also shows some unfamiliarity with the term "Tswana Pipes."

Test Score: Progress is reflected here because six (60% of the total) agreed and two (20% of the total) strongly agreed. This shows a greater tendency towards the positive than the Test Score of Group A.

Table 13: Preference for Learning the Mbira to Learning the Piano

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0	3	20	0									
1	4	26.6	4	4	26.6	4	2	20	2	1	10	1
2	6	40	12	5	33.3	10	5	50	10	4	40	8
3	1	6.6	3	5	33.3	15	2	20	6	3	30	9
4	1	6.6	4	1	6.6	4	1	10	4	2	20	8
TOTAL:	15		23	15		33	10		22	10		23

Data From Group A

Pre-Test Score: The fact that thirteen subjects (86,6% of the total) gave ratings ranging from 0 to 2 shows that they did not know what a mbira is.

Test Score: There is much growth here (30%) because they were exposed to the mbira both in the form of a live demonstration and on recordings. Six (40% of the total) gave ratings ranging from 3 to 4, which is very positive.

Data From Group B

Pre-Test Score: The fact that seven subjects (70% of the total) gave ratings ranging from 1 to 2 must also mean (as in the Pre-Test Score for Group A) that they did not know then what an mbira is.

Test Score: The distribution is more even. Five subjects (50% of the total) gave ratings ranging from 3 to 4. The margin of growth is the same as in Group A.

Table 14: Belief that African Musical Instruments Should Receive Much More Recognition

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0				1	6.6	0						
1	1	6.6	1	2	13.3	2						
2	10	66.6	20	6	40		1	10	2			
3	3	20	9	5	33.3	15	7	70	21	7	70	21
4	1	6.6	4	2	13.3	8	2	20	8	3	30	12
TOTAL:	15		34	15		37	10		31	10		33

Data From Group A

Pre-Test Score: Eleven subjects (73,3% of the total) gave ratings ranging from 1 to 2. This means that they knew very little about African musical instruments.

Test Score: Six subjects (40% of the total) gave a 2-rating. Seven (46,7% of the total) gave positive ratings. This is a 5% improvement on the Pre-Test Score.

Data From Group B

Pre-Test Score: Seven subjects (70% of the total) gave a 3-rating response. This shows that they have an interest in this field of African music.

Test Score: The results of the Pre-Test and Test scores are fairly close. The 5% growth is the same as in Group A.

Table 15: Preference for Listening to Records of African Songs

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0	8	53.3	0	2	13.3	0						
1	3	20	3	7	46.6	7						
2	3	20	6	2	13.3	4	4	40	8	2	20	4
3				3	20	9	5	50	15	6	60	18
4	1	6.6	4	1	6.6	4	1	10	4	2	20	8
TOTAL:	15		13	15		24	10		27	10		30

Data From Group A

Pre-Test Score: Fourteen subjects (93,3% of the total) gave ratings from 0 to 2. This, as Table 9, indicates lack of exposure to African songs for this Group.

Test Score: There is progress to the positive here because only nine subjects (60% of the total) gave ratings ranging

from 0 to 2, as opposed to the 93,3% in the Pre-Test Score.

Data From Group B

Pre-Test Score: Six subjects (60% of the total) gave responses ranging from 3 to 4. This shows a more positive Pre-Test Score than that obtained from Group A.

Test Score: There was a 7,5% growth between the Pre-Test and Test scores.

Table 16: Endorsement of Sensitivity towards the Music of Other Peoples

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0												
1	4	26.6	4	3	20	3						
2	5	33.3	10	5	33.3	10						
3	6	40	18	7	46.6	21	6	60	18	5	50	15
4							4	40	16	5	50	20
TOTAL:		15	32	15		34	10		34	10		35

Data From Group A

Pre-Test Score: Nine subjects (60% of the total) gave ratings ranging from 1 to 2.

Test Score: Eight subjects (53,3% of the total) gave ratings ranging from 1 to 2. This represents a slight improvement (3,3%) on the Pre-Test Score.

Data From Group B

Pre-Test Score: All the subjects gave ratings ranging from 3 to 4.

Test Score: There was a 2,5% improvement between the Pre-Test and Test Scores.

Table 17: Belief in Devoting More Time to Western Music

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0	2	13.3	0	2	13.3	0						
1	5	33.3	5	6	40	6	3	30	3	2	20	2
2	4	26.6	8	5	33.3	10	4	40	8	4	40	8
3	2	13.3	6	2	13.3	6	3	30	9	3	30	9
4	2	13.3	8							1	10	4
TOTAL:	15		27	15		22	10		20	10		23

Data From Group A

Pre-Test Score: Eleven subjects (73,3% of the total) gave responses from 0 to 2 (i.e. "strongly agree" to "uncertain"). Four subjects (26,7% of the total) gave responses ranging from 3 to 4 (i.e. "disagree" to "strongly disagree"). This shows a strong bias towards Western music.

Test Score: Six subjects (40% of the total) gave a "disagree" rating to this item. The overall growth between the Pre-Test and Test Scores is 4,4%.

Data From Group B

Pre-Test Score: Three subjects (30% of the total) gave 3-ratings (i.e. "disagree").

Test Score: Three subjects (30% of the total) gave 3-ratings and one (10% of the total) gave a 4-rating. The growth was 7,5%.

Table 18: Desire to Join a Choir to Sing African Songs

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
	R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
	0	4	26.6	0	1	6.6	0						
	1	6	40	6	11	73.3	11						
	2	2	13.3	4	2	13.3	4	6	60	12	6	60	12
	3	3	20	9				4	40	12	4	40	12
	4				1	6.6	4						
TOTAL:		15		19	15		19	10		24	10		24

Data From Group A

Pre-Test Score: Twelve subjects (80% of the total) gave ratings ranging from 0 to 2. This response reflects the fact that this group does not like singing. Another reason for this high concentration from "strongly disagree" to "uncertain" is the fact that this question tests commitment.

Test Score: Fourteen subjects (93,3% of the total) gave ratings ranging from 0 to 2. This means that the lessons prior to this questionnaire did not change this attitude.

Data From Group B

Pre-Test Score: Six subjects (60% of the total) gave a 2-ratings; four (40% of the total) gave 3-ratings. This group seems to be more enthusiastic in their response than Group A.

Test Score: The result remains the same as the Pre-Test

Score. There was no growth, as in Group A.

Table 19: Desire to Form Own African Music Group

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
0	6	40	0	2	13.3	0	1	10	0			
1	7	46.6	7	8	53.3	8	1	10	1	1	10	1
2	1	6.6	2	4	26.6	8	7	70	14	6	60	12
3	1	6.6	3				1	10	3	3	30	9
4				1	6.6	4						
TOTAL:	15		12	15		20	10		18	10		22

Data From Group A

Pre-Test Score: Fourteen subjects (93,3% of the total) gave responses from 0 to 2.

Test Score: Fourteen subjects (93,3% of the total), as in the Pre-Test Score gave responses ranging from 0 to 2. This result shows that this group is not prepared to commit themselves at this level.

Data From Group B

Pre-Test Score: Nine subjects (90% of the total) gave responses ranging from 0 to 2. This finds a close parallel in the Pre-Test Score of Group A.

Test Score: Seven subjects (70% of the toral) gave ratings ranging from 1 to 2. This reflects a slight progress to the positive.

Table 20: Desire for a Uniform Music Education Syllabus for All Schools

	GROUP A						GROUP B					
	Pre-test			Test			Pre-test			Test		
	R	N	%	Sc1	N	%	Sc2	N	%	Sc1	N	%	Sc2
	0	1	6.6	0	3	20	0						
	1	4	26.6	4	2	13.3	2						
	2				1	6.6	2	1	10	2			
	3	9	60	27	5	33.3	15	7	70	21	4	40	12
	4	1	6.6	4	4	26.6	16	2	20	8	6	60	24
TOTAL:		15		35	15		35	10		31	10		36

Data From Group A

Pre-Test Score: Ten subjects (66,7% of the total) agreed that there should be a uniform Music Education Syllabus for all schools. This is a positive Pre-Test Score.

Test Score: There is no difference between the Pre-Test and Test Scores.

Data From Group B

Pre-Test Score: Nine subjects (90% of the total) gave ratings ranging from 3 to 4. This overwhelming response shows that they agree that there should be a more uniform Music Education Syllabus.

Test Score: All the subjects agreed that the Music Education Syllabus should be uniform.

Chapter Eleven

Conclusion

The four main aspects covered in this dissertation are:

(a) African Music: its musical constituents such as harmony and rhythm, its use in society, a discussion of African musical instruments and aspects of African song.

(b) A comparison between African music and Carl Orff's educational ideals.

(c) Suggestions on how to incorporate African music into the normal music education programme.

(d) A report on a questionnaire to ascertain interest, attitudes and responses of non-Africans towards African music.

In his research, the author has come to the conclusion that non-African pupils and students are interested in African music. Their interest, however, is not purely musical, but also environmental. This is reflected in their interest in Nguni song-texts. (Table 11 in Chapter 10 verifies this.) E.May had similar findings when teaching Aboriginal Music to English-speaking children in Australia. (1)

The use of African music in the non-African school leads to better understanding, not only of music but of Man in all his varied customs and habitats and should, it is hoped, lead to a better understanding of African culture and contribute to the establishment of healthy attitudes towards fellow man. This is expecially important here in South Africa.

Some children have an inherent rhythmic sense. The author has come across this many times. This sense can only be fully exploited through the use of African music in the school, because the use of Western music in the school does not exploit this ability as much as African music.

(1) E.May: "An Experiment with Australian Aboriginal Music", Music Educators Journal, Vol 54 No 4, 1967, pp. 46 - 50

Because African music is concerned mainly with rhythm and percussive textures it is not necessary to buy expensive musical instruments. This always seems to be a strong pre-requisite nowadays for music-making in the school. (See Chapter Eight: How to Make African Musical Instruments.) From his research, the author has found that children are interested in African rhythm. (See Tables 5 and 8 in Chapter 10.) It should be exploited much more in the classroom because it is unique and because it provides a rhythmic vocabulary which only many years of training in Western music will be able to offer. The variety of apparatus for exploiting African rhythm can range from the desk-top to an African drum.

The principle of group-involvement in African music readily lends itself to the classroom situation. The amadinda, for example, is meant to be played by three people. This is one of the central aims of the Orff-Schulwerk approach, that music-making should be a group activity.

The clapping and stamping accompaniments to many African songs also lend themselves to group-involvement.

There is a great lack of knowledge, even among the Africans, of the indigenous musical instruments of South Africa. The author, in his lessons at non-African schools, leading to the Test Questionnaire (see Chapter 10), detected spirited enthusiasm on the part of the classes whenever the subject was African musical instruments. The use of indigenous musical instruments in the classroom alone can provide a very educational experience. However, because it is only one aspect of the African music-making process, it should not be treated in vacuo.

The teacher should cater for the budding composer in the classroom by introducing him to African music at a very early stage of his musical development. This is the only way in which a truly South African style of composition can emerge, something which unfortunately has yet to be achieved. Music education syllabi in South Africa should be streamlined to include not only African but also Muslim and Indian music.

Suggestions for Future Research

There is a need for transcribing African music, because, as was mentioned in Part I, the music dies when the social function dies.

There is research opportunity on the question of how the African learns his music, so that music education methodology in Africa can be dovetailed with the way the African learns it in his society.

There is research opportunity for the use of Indian and Muslim music in the school.

It is hoped that this dissertation will stimulate much more thought on other possible uses of African music in the school.

APPENDIX A

SAMPLE QUESTIONNAIRE AND OUTLINE OF LESSONS

OUTLINE OF LESSONS

The lessons were geared to promote greater understanding in the answering of the Test Questionnaire.

LESSON 1

Duration: One double period (70 mins)

Apparatus:

Records and tape-recordings of Zulu and Xhosa songs;
Transparencies for an overhead projector.

Subject Matter:

African song-texts;
The role of song in the African society;
The importance of rhythm in co-ordinative effort;
Learning a simple song with a rhythmic clap-accompaniment.

LESSON 2

Duration: One double period (70 mins)

Apparatus:

1. Various African musical instruments:
1.1 bow (uhadi);
1.2 mbira dzaVadzimu;
1.3 Tswana pan-pipes;
1.4 gourd rattle;
1.5 drum.
2. Record and tape-recordings illustrating the use of the above instruments.

Subject Matter:

Demonstrations on the various instruments described above;
Teaching the playing techniques of the easier instruments such as the gourd rattle and the bow;
Teaching a song to bow accompaniment;
Experiencing African rhythm -
(a) non-coincident clapping:
(b) polyrhythm:
(c) using the gourd rattle to enhance the percussive texture of the clapping;
(d) a demonstration of the principles involved when making a Tswana pan-pipe.

SAMPLE QUESTIONNAIRE

Part One

Rate your knowledge of each of the subjects listed below by placing a tick (✓) in the appropriate box. THERE IS NO CORRECT ANSWER, so try to be as honest as possible.

Use the following scale:

0 = no knowledge at all
1 = a little knowledge
2 = moderate knowledge
3 = a good deal of knowledge
4 = extensive knowledge

1.	Do you know what African tribal music sounds like?	0	1	2	3	4
2.	Do you know what kinds of instruments are used in African tribal music besides drums?	0	1	2	3	4
3.	Do you know the kinds of subjects that African tribal songs are about?	0	1	2	3	4
4.	Do you know how to play an African musical instruments?	0	1	2	3	4
5.	Do you know what kind of rhythm is found in African music?	0	1	2	3	4

Part Two

Place a tick (✓) in the box below the word(s) that most closely reflect(s) your feelings on the questions asked.

Example:
All music teachers are lazy.

Strongly Agree	Agree	Uncertain/ Neutral	Disagree	Strongly Disagree
		✓		

6. It's about time I was taught more about African music.
7. I like the sound of African drums.
8. I would like to learn more about African rhythms.

9. Xhosa songs appeal to me.
10. If I had to choose between learning a Xhosa song and an English song, I would choose to learn the English song.
11. I would like to know more about Africans by studying their song-texts.
12. If somebody showed me how to make Tswana pan-pipes, I would try to make my own as soon as possible.
13. If I had the choice between learning the piano and an African thumb piano (mbira), I would choose the thumb piano.
14. African musical instruments, besides the drums, deserve much more recognition by us than in the past.
15. If I could choose between a good record of African songs or a record of 'pop' songs, I would choose the record of African songs.
16. We should be far more sensitive to the music of other peoples.
17. Although we ought to know more about African music we should devote much more of our time towards our own.
18. I would like to join a choir to sing African tribal songs.
19. I would like to form my own African music group.
20. All school children in South Africa should have the same syllabus including African, Indian, Malay and Western music.

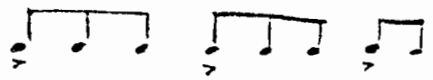
ANSWER SHEET

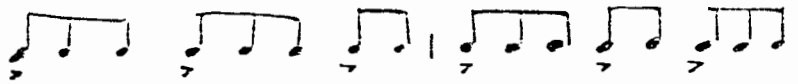
	Strongly Agree	Agree	Uncertain Neutral	Disagree	Strongly Disagree
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

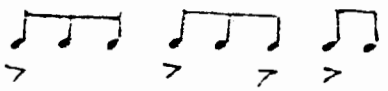
APPENDIX B

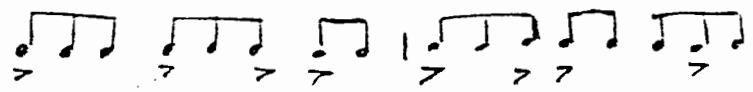
RHYTHMIC PATTERNS IN THE AFRICAN IDIOM

Bow Rhyths:

8x ♪ 

8x ♪ 

8x ♪ 

8x ♪ 

12x ♪ 

Clap - Walk Rhythms

12x ♪

clap	X			X			X			X		
walk	X		X		X		X		X		X	

12x ♪

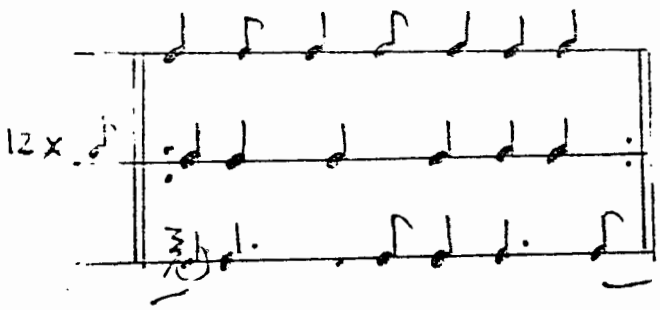
clap	X		X		X			X		X		
walk	X		X		X		X		X		X	

12x ♪

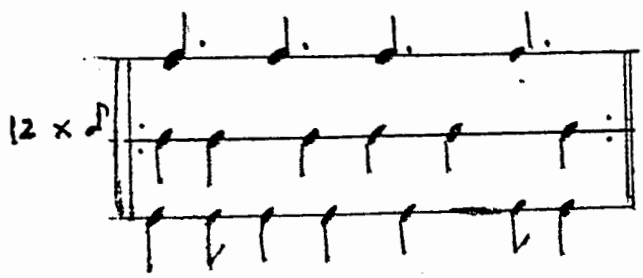
clap	X			X		X			X	X	X	
walk	X		X		X		X		X		X	

12x ♪

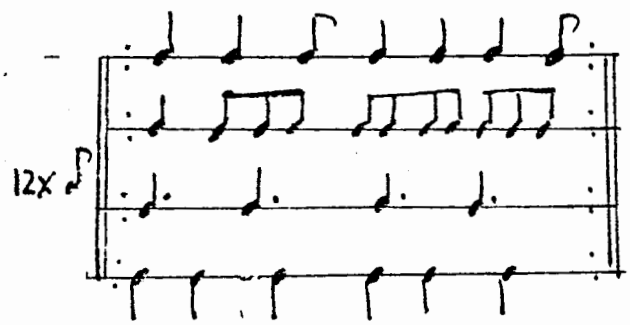
clap	X		X	X		X		X		X	X	
Walk	X		X		X		X		X		X	



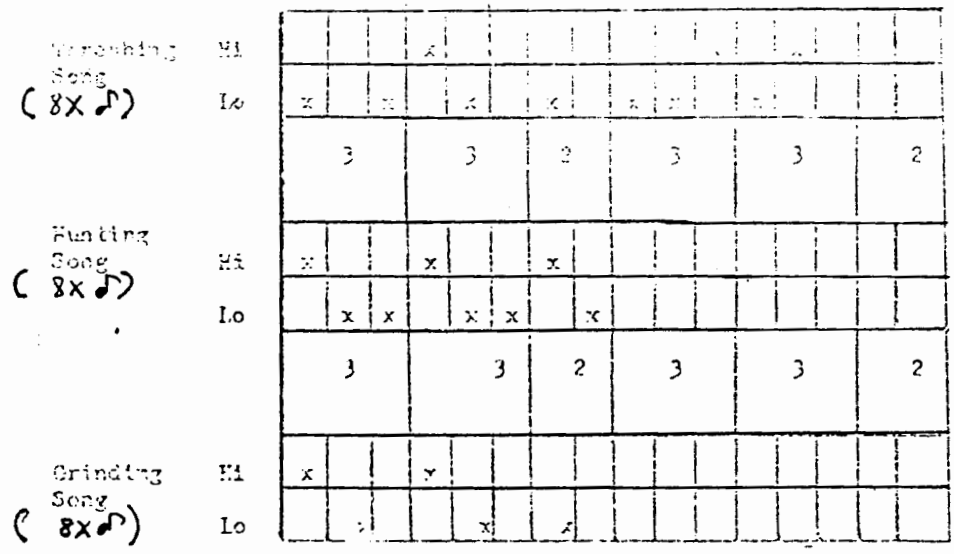
Axe-Blade Rhythm Bemba

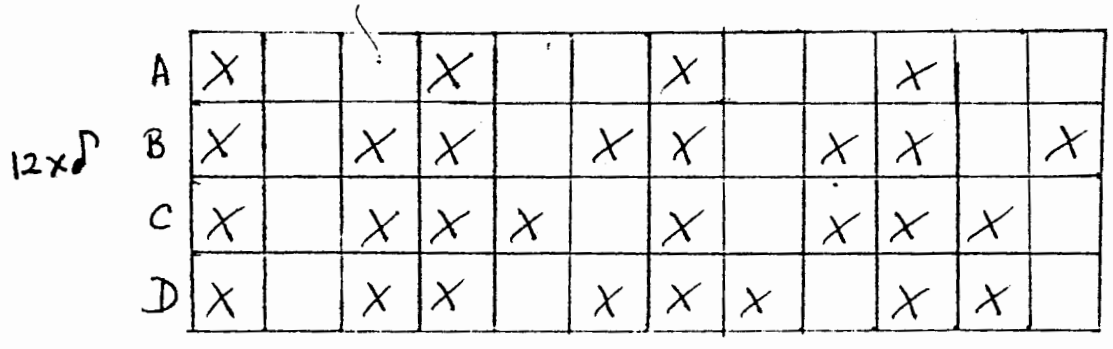


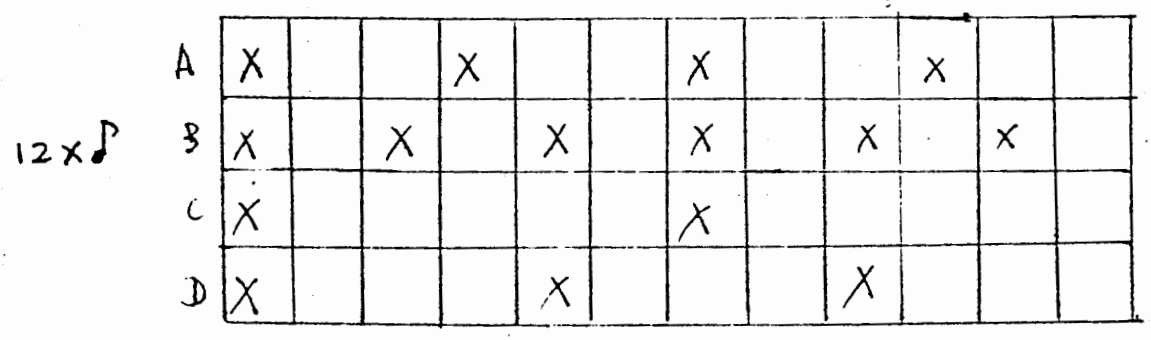
Ostinato Clap Sogo (Ghana)



Shona Rhythm Patterns, Zimbabwe, Source: R. Kauffman: "African Rhythm: A Reassessment", Ethnomusicology, Vol. 24, No. 3, 1980.





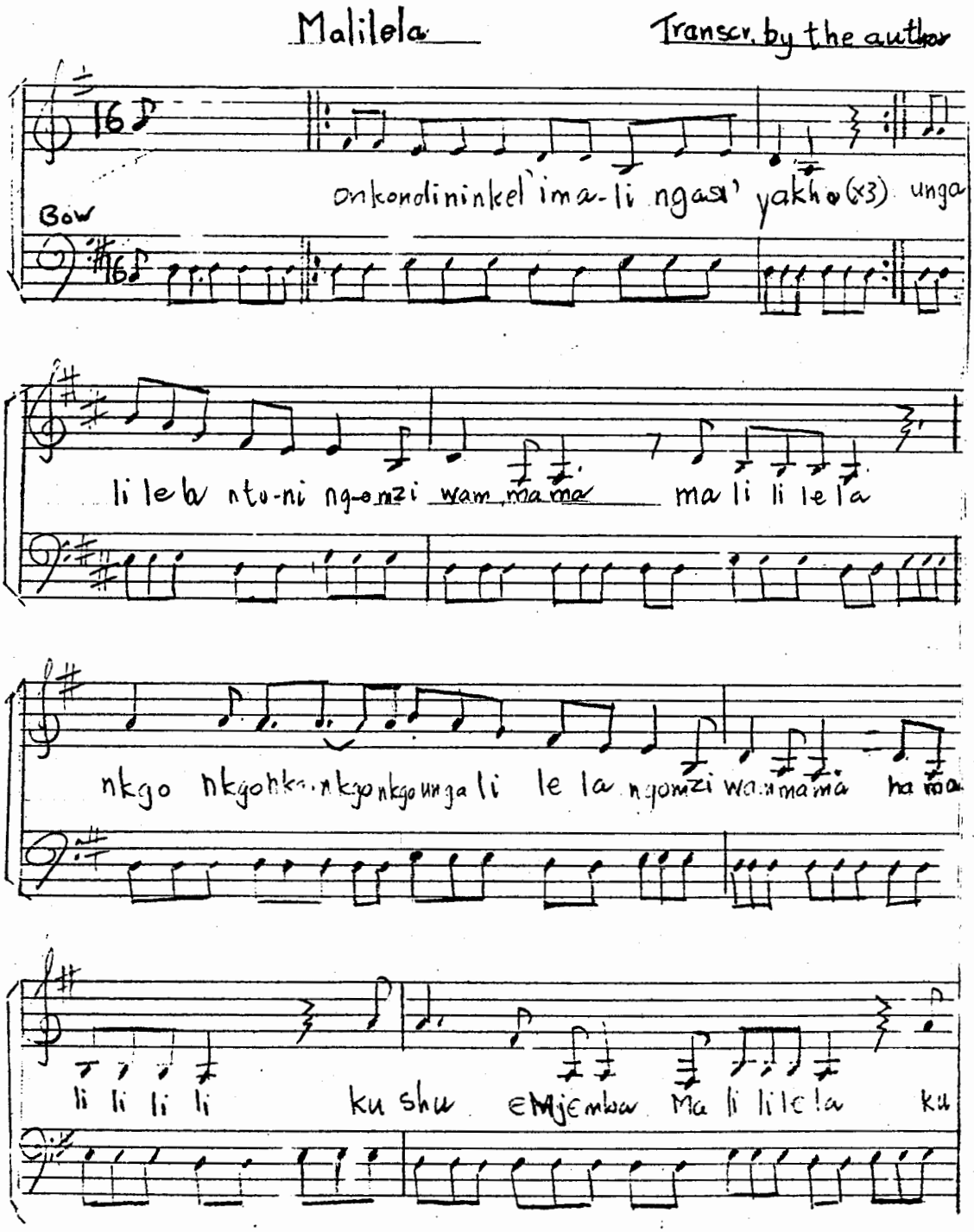


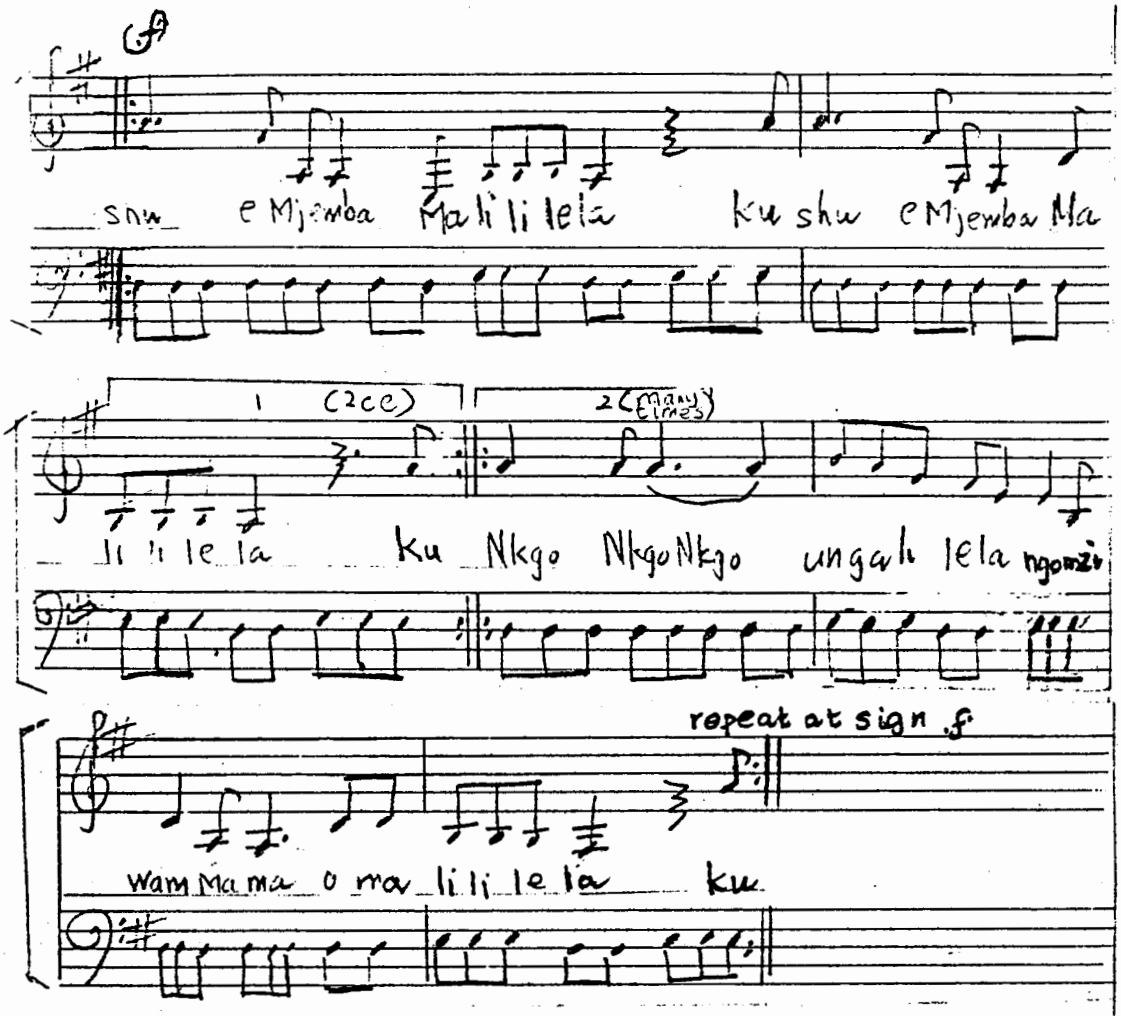
APPENDIX C

NGUNI SONGS

Xhosa songs

Malilela: Transcribed by the author from the "South of Africa" series, TR.13.B.2.





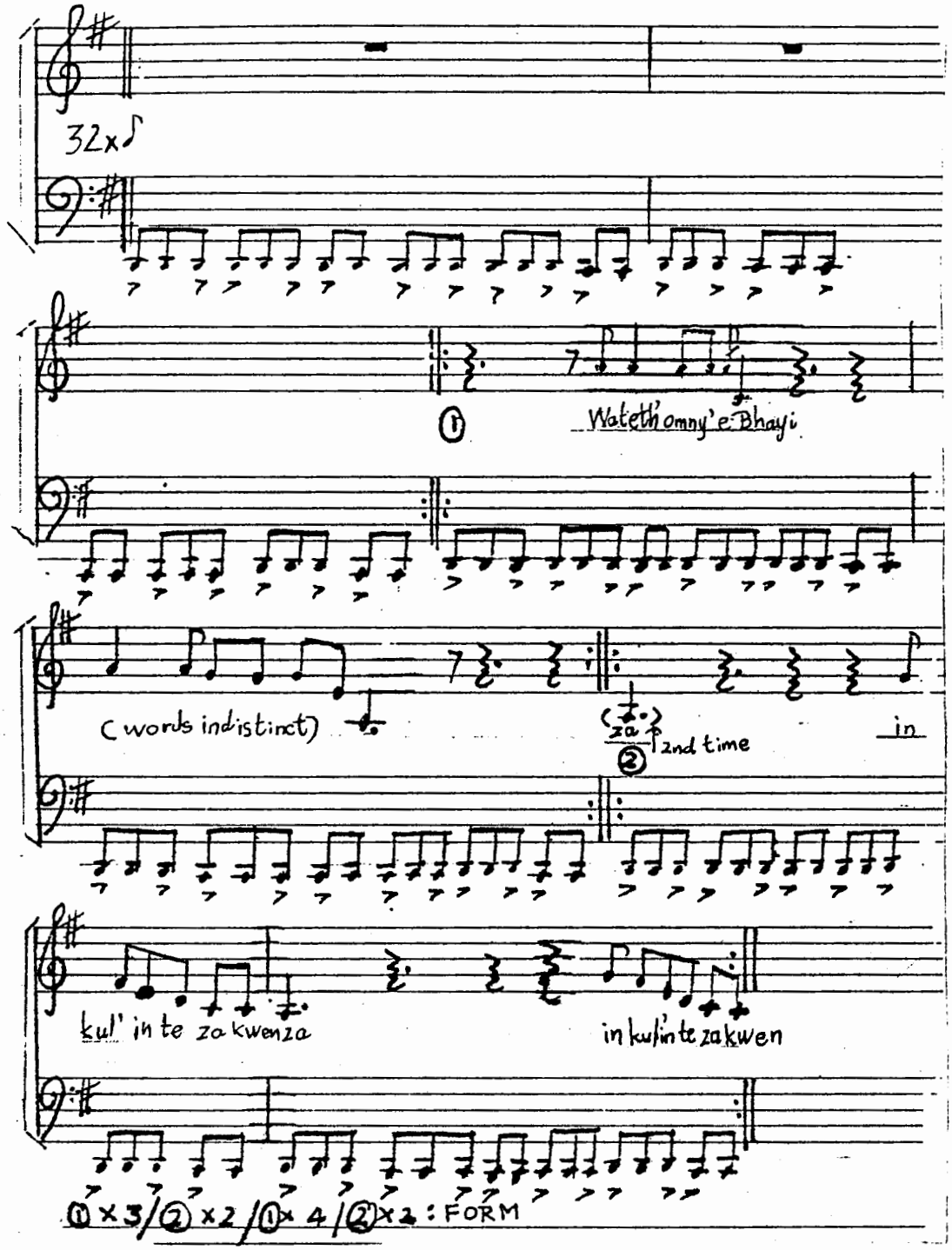
Text:

Onokundinikel' imali ngasiyo yakho (three times)
Ungalilela ntoni ngomzi wam mama mandilililili
Nkgo nkgo nkgo ungalilela ngomzi wam
Hamba lilili
kushushu eMjemba jilili (three times)
Nkgo nkgo nkgo ungalilela ngomzi wam etc.

Translation:

You can't give me money which is not yours
why is there crying in my house?
knock knock knock why is there crying in my house?
It's not at Mjemba
It's Mandilililili

Inkulu: Transcribed by the author from the "Sound of Africa" series, TR.13.B.1.



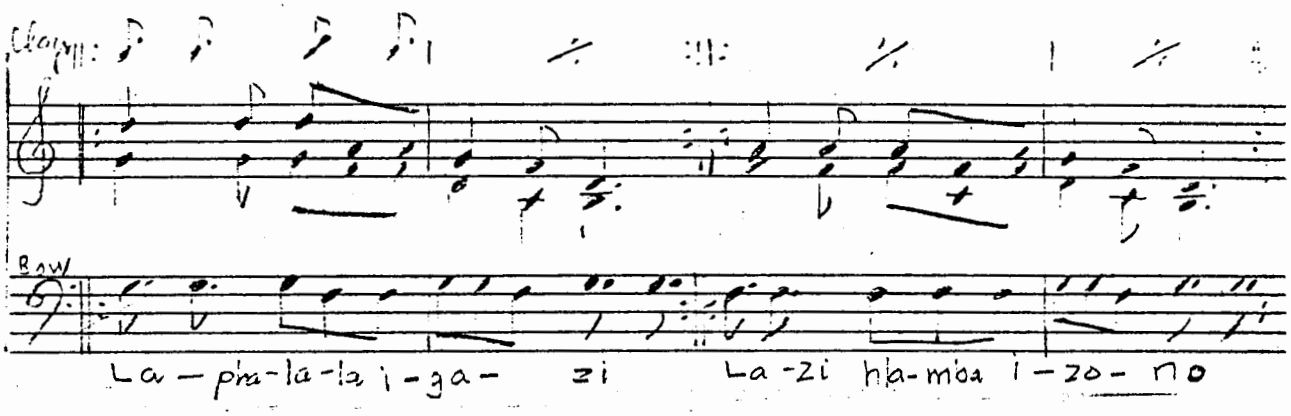
Text:

Watheth' omny" eBhayi
(words unclear)
inkul(u) int(o) ezakwenza

Translation:

Somebody spoke in Port Elizabeth
(words unclear)
something great is going to happen

Laphalala: Transcribed by Fr. D. Dargie, New Church Music in Xhosa, Lumko Music Dept., March, 1981.



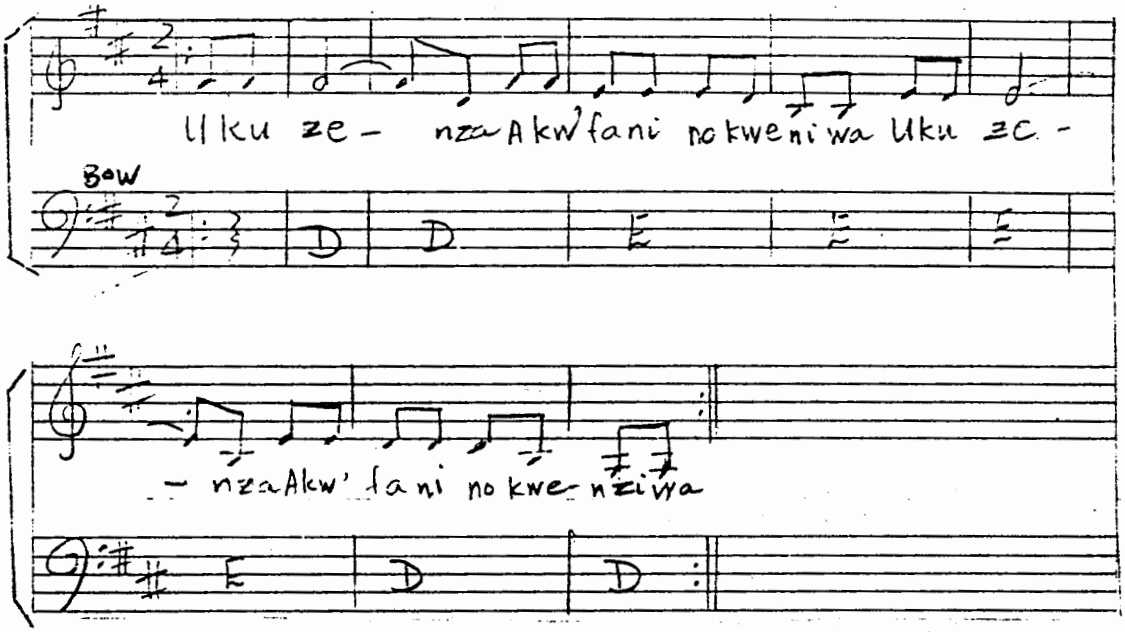
Text:

Laphalala igazi (twice)
La-zi-hlamba i-zo-no (twice)

Translation:

The blood was poured out, which washes away sin

Ukuzenza: Transcribed by Williams and Maselwa in African Folk Songs, 1947. Bow part by the author.



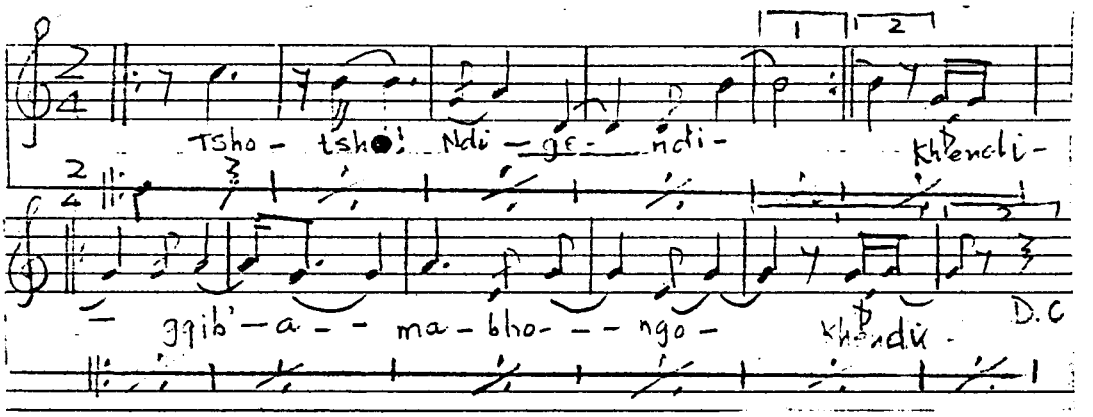
Text:

Ukuzenza akw'fani nokwensi

Translation:

You have been warned, but you refuse to take heed
You can't blame anybody

Xhosa Dance Song: Transcribed by D. Rycroft, Manchester Memoirs, Vol. 55, No. 3 (1962-63), p.15.



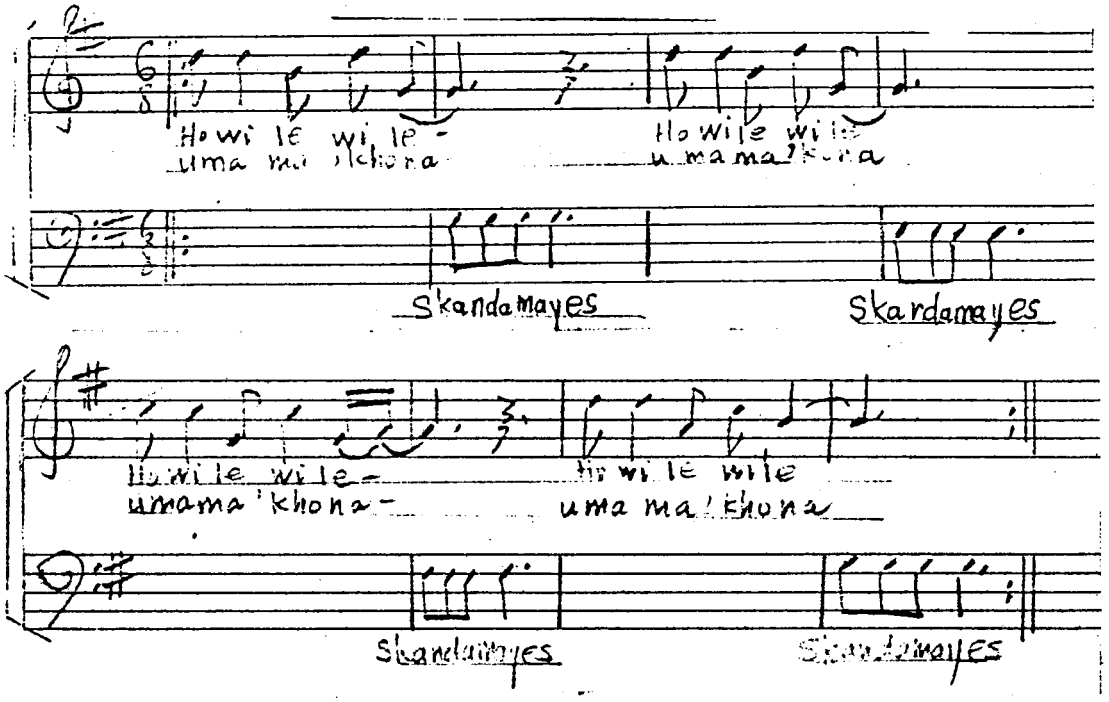
Text:

Tshotso! Ndigendi
Khendigqib' amabhongo

Translation:

Oh! How fortunate I am to be unmarried
I can still follow my own wishes

Howilewile: As sung by L. Piet. Transcribed by the author.

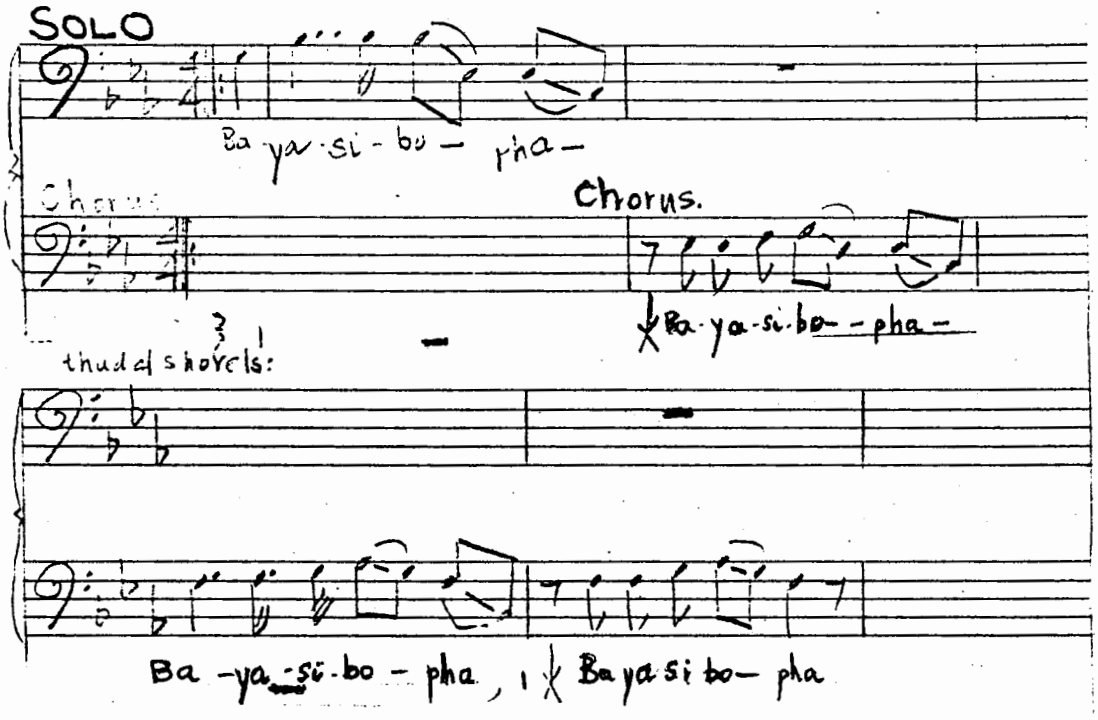


Translation:

("Howilewile" is a rhythmic word and is meaningless)
Beat the medicine (i.e. crush the herbs)

Mother is there
Beat the medicine

Bayasibopha: Transcribed by D. Rycroft, Manchester Memoirs, Vol. 55, No. 3, 1962-63, p. 13.



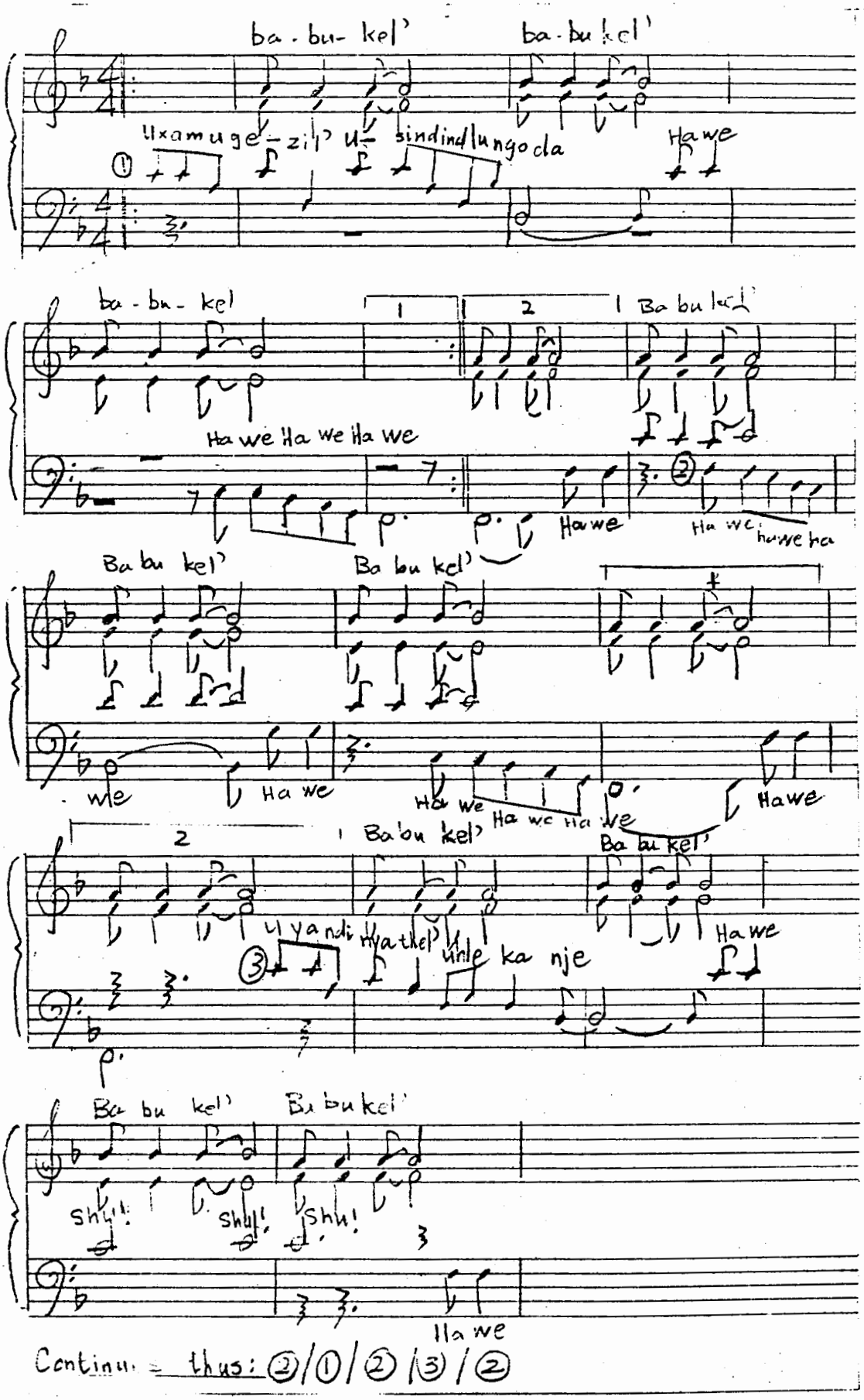
Text:

Bayasibopha

Translation:

They arrest us

Uxam ugezile: Transcribed by the author from the "Sound of Africa" series, TR.26.A.5.



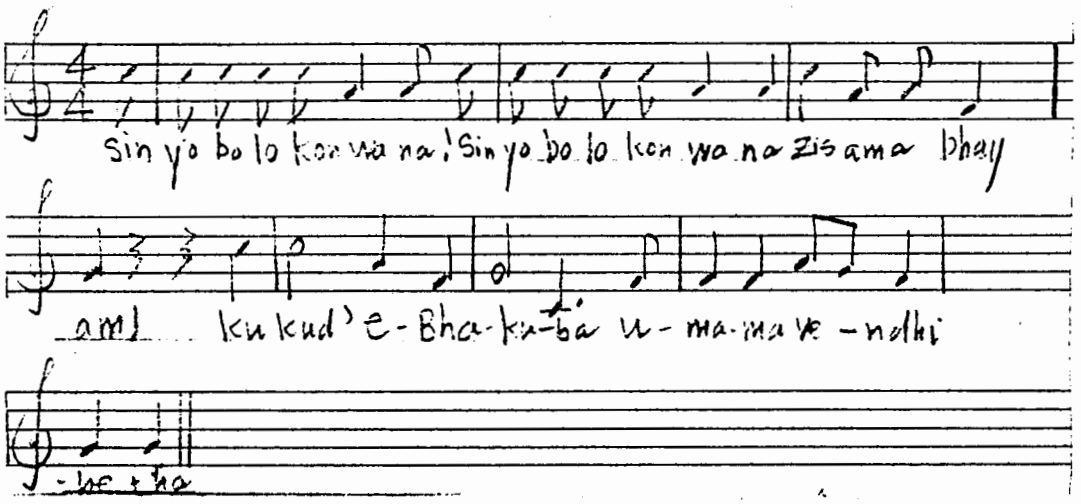
Text:

Tenors: Uxam ugezil(e)
Usind' indlu ngoda(ka)
Hawe
Chorus: Babukel(e)
Basses: Uyandinyathel 'uhleka nje
Hawe Shu! Shu! Shu!

Translation:

Tenors: The crocodile is silly
He's decorating the house with mud
Chorus: They are watching
Basses: You are trampling on me with laughter

Sinyobokondwana: Transcribed by D. Rycroft, "Zulu and Xhosa Praise Poetry," African Music, vol. 3, No. 1, 1962, p.82.



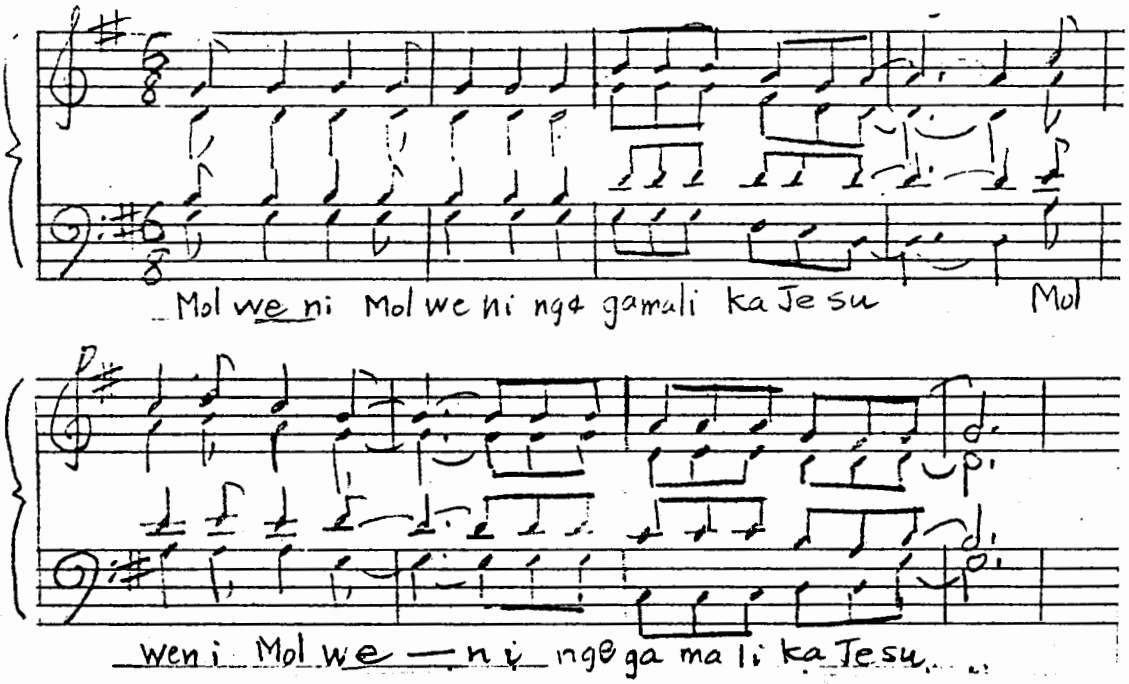
Text:

Sinyobokondwana!
zisama bhayam!
kukud' eBhakubha
umama vendhi betha

Translation:

Sinyobokondwana!
Give back my clothes!
Bhakubha is a long way off!
Mother will give me a beating.

Molweni: As sung by St. Anthony's Choir, Langa, (C.T), transcribed by the author.



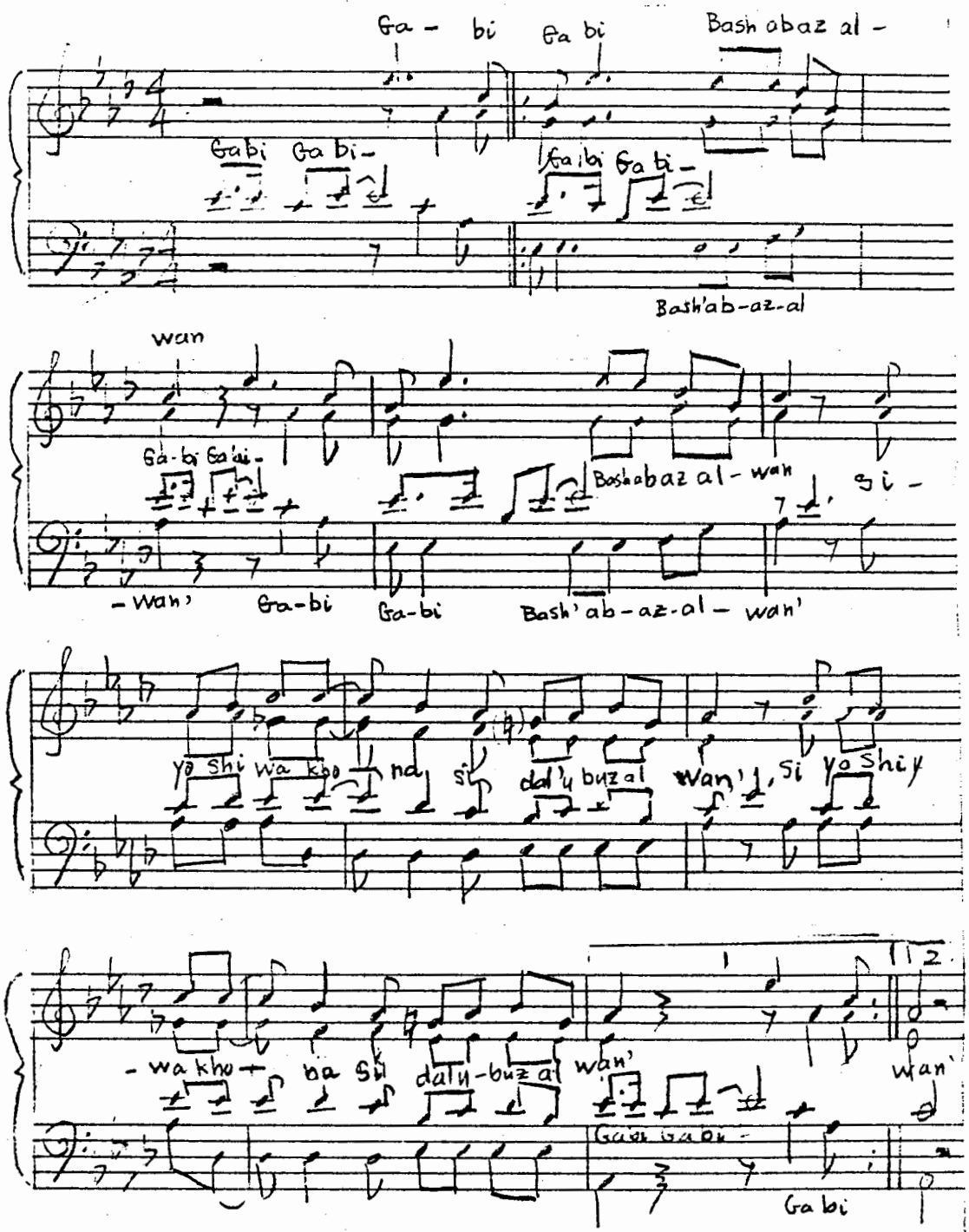
Text:

Molweni molweni (many times)
Nge gama lika Yesu

Translation:

Greetings in the Name of **Jesus**

Gabi gabi: As sung by Teenage Harmonies, Guguletu (C.T.), transcribed by A. Nyberg.



Text:

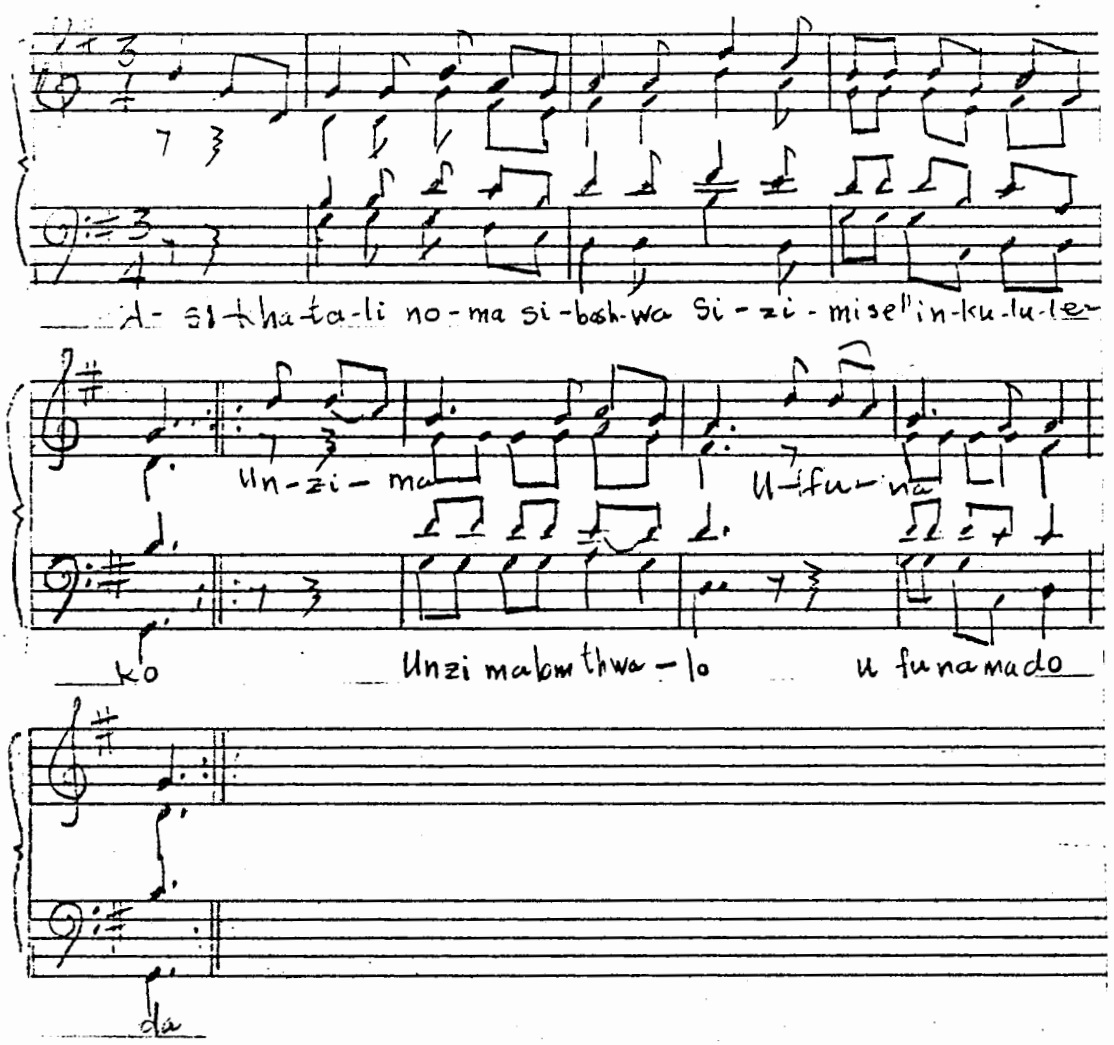
Gabi Gabi
Bash'abazalwan' (twice)
Siyoshiywa khona
Sidal'ubuZalwan' (twice)

Gabi, Gabi
Bash'abazalwan' (twice)
Siyoshiywa khona
Sidal'ubuzalwan'

Translation:

They say that we will be left
for the creation of the youth movement

Asikhatali: Source, ibid.



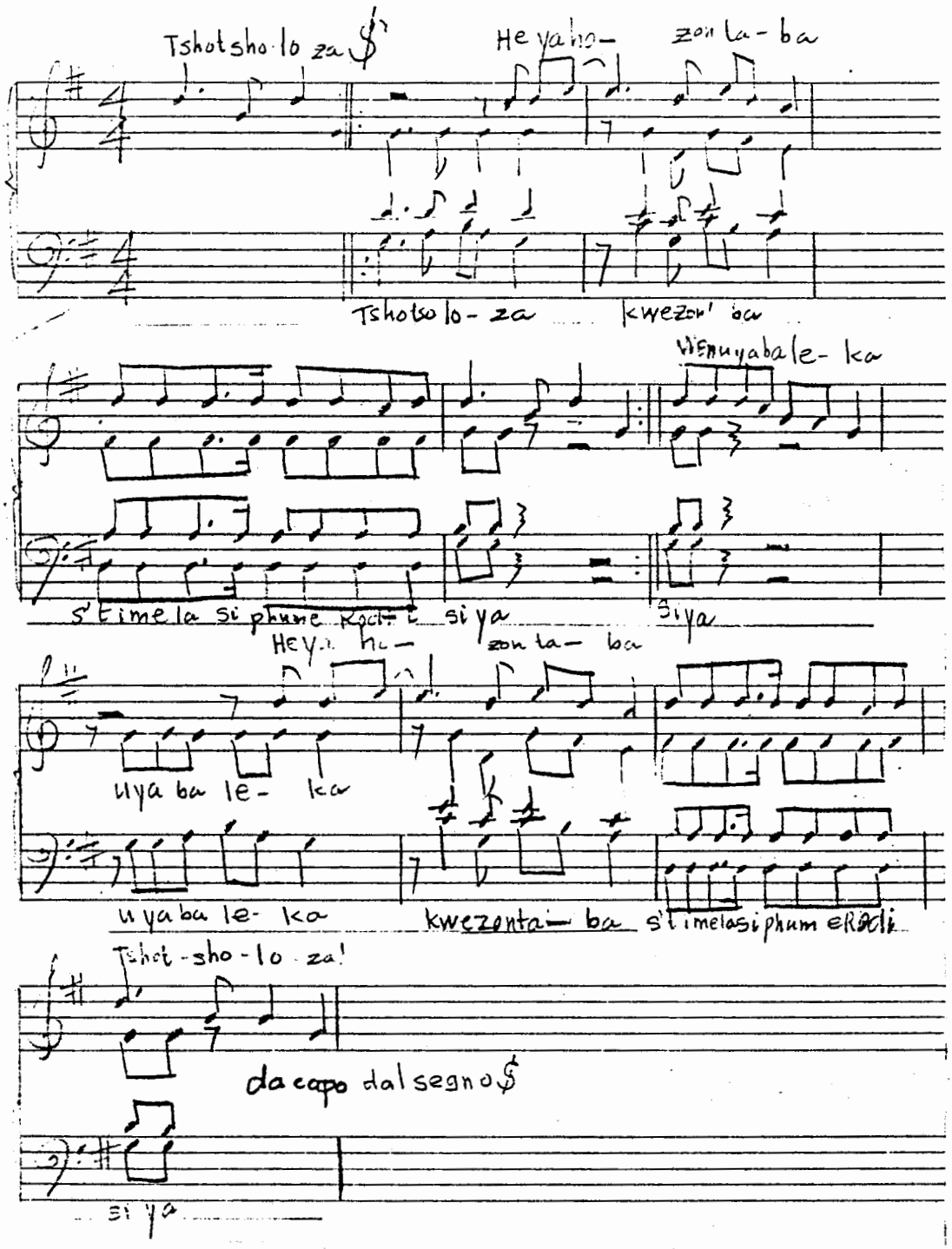
Text:

Asikhatali noma siboshwa (twice)
Sizimisel' inkululeko
Unzima lomthwalo (twice)
Ufuna simanyane

Translation:

We do not care even if we're arrested
We're determined for liberation
This task is difficult
It needs unity

Tshotsholoza: Source, ibid.



Text:

Tshotsholoza! Tshotsholoza!
kwezontaba s'timela siphum e-Rodeshiya

Wen'uyabaleka wen'uyabaleka
kwezontaba s'timela siphum' e-Rodeshiya

Translation:

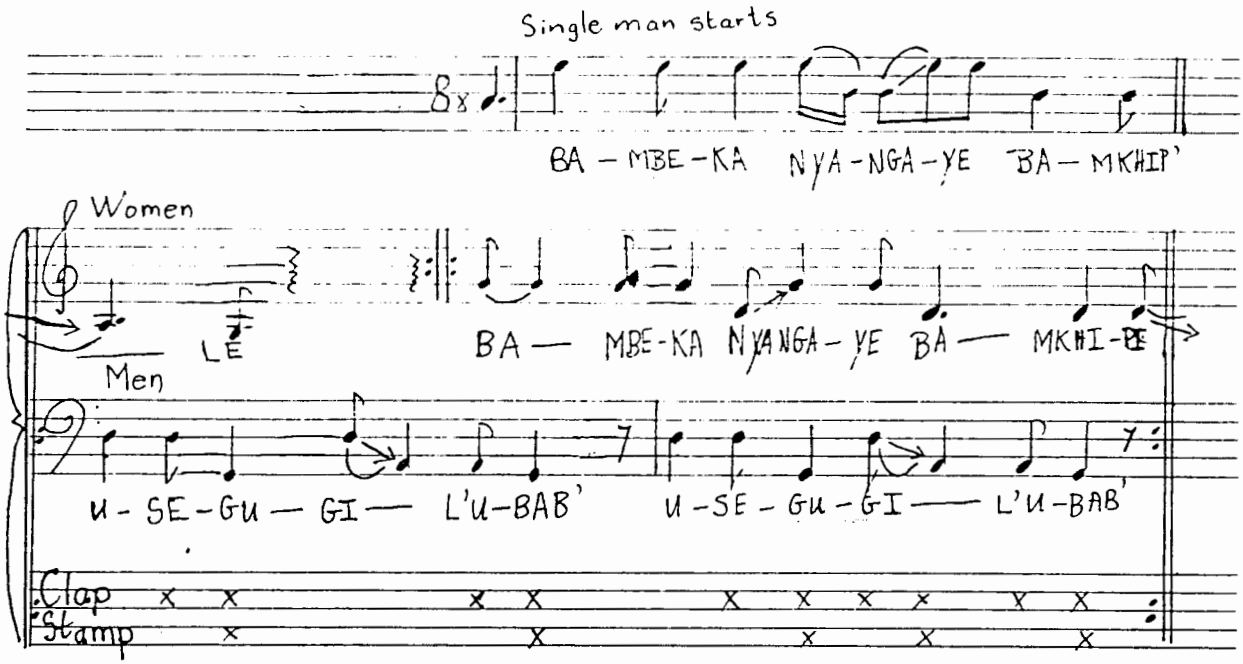
Tshotsholoza! Tshotsholoza!
The train is coming across the mountain from Rhodesia

You're running! You're running
Across these mountains the train is coming from Rhodesia

Z U L U S O N G S

USEGUGIL'UBAB'

Transcr. by A. Tracey



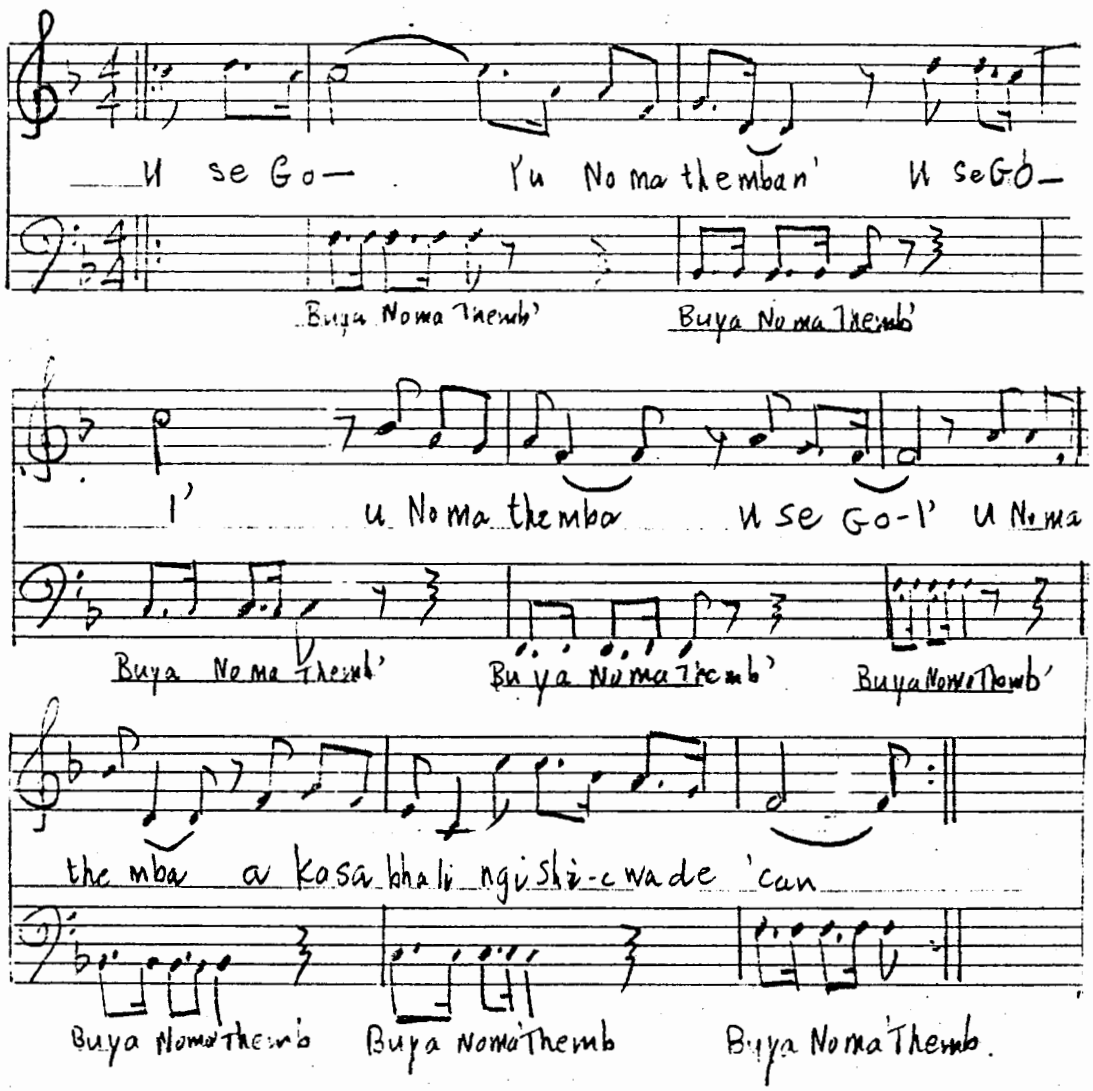
Text:

Solo: Bambeka nyanganye bamkhipile (twice)
Chorus: Usegugile Usugugil'ubaba

Translation:

Solo: They set him up one month, then they deposed him
Chorus: He is getting old! Father, you're getting old!

Buya Nomathemba: Source, (See overleaf)



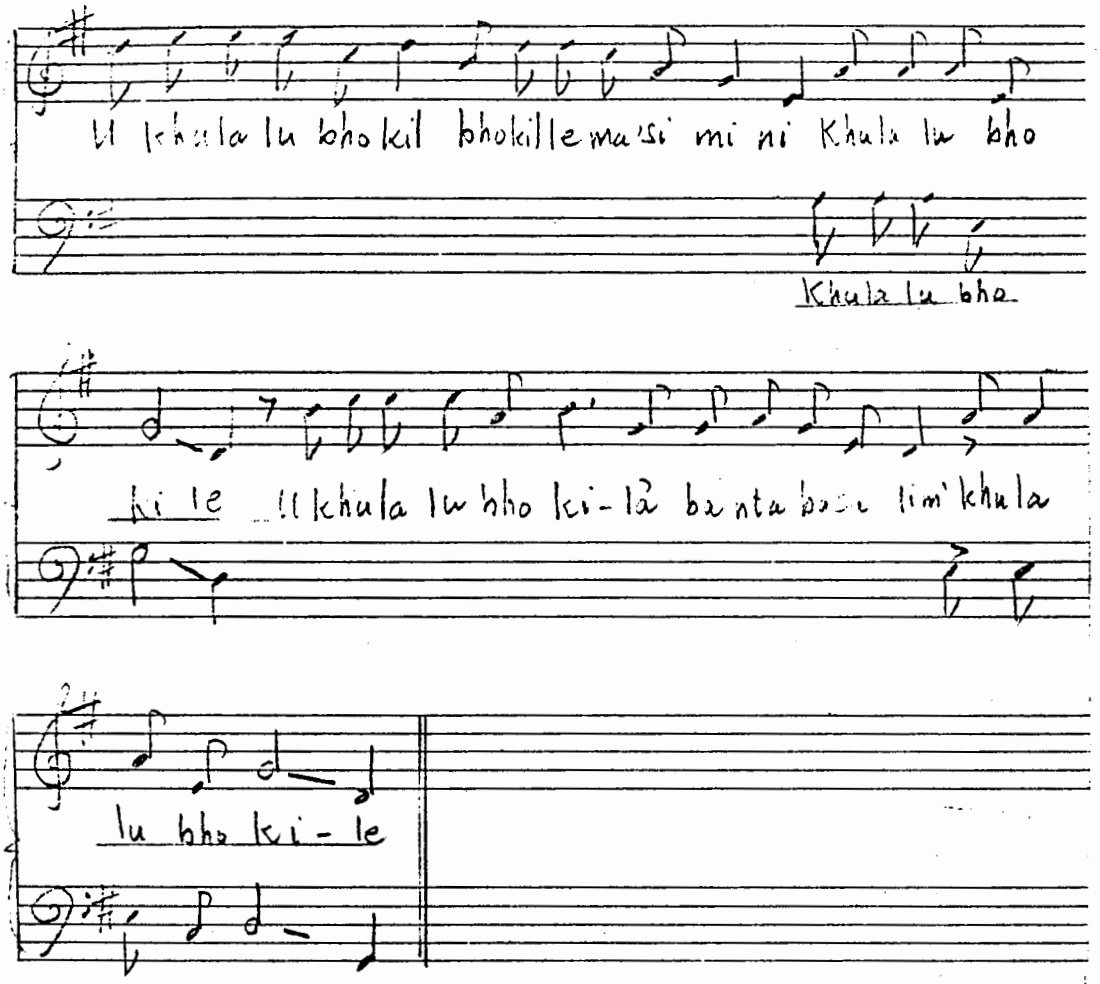
Text:

Use goli uNomathemba
Akasabhali ngisho icwadi encane
Buya Nomathemba

Translation:

Nomathemba went to Johannesburg for good
She does not even care to write us a short note
Please come back Nomathemba

Ukhula Lubokile: Transcribed by B. Mthethwa, Zulu Folksongs: History, Nature and Classroom Potential, p.30.



Text:

Ukhula lubhokil' bhokil' emasimini
Abant' abasalim'
'Khula lubhokile

Translation:

The weed is so rampant in the fields
So much that people are no longer keen
To plant crops for fear of weeding

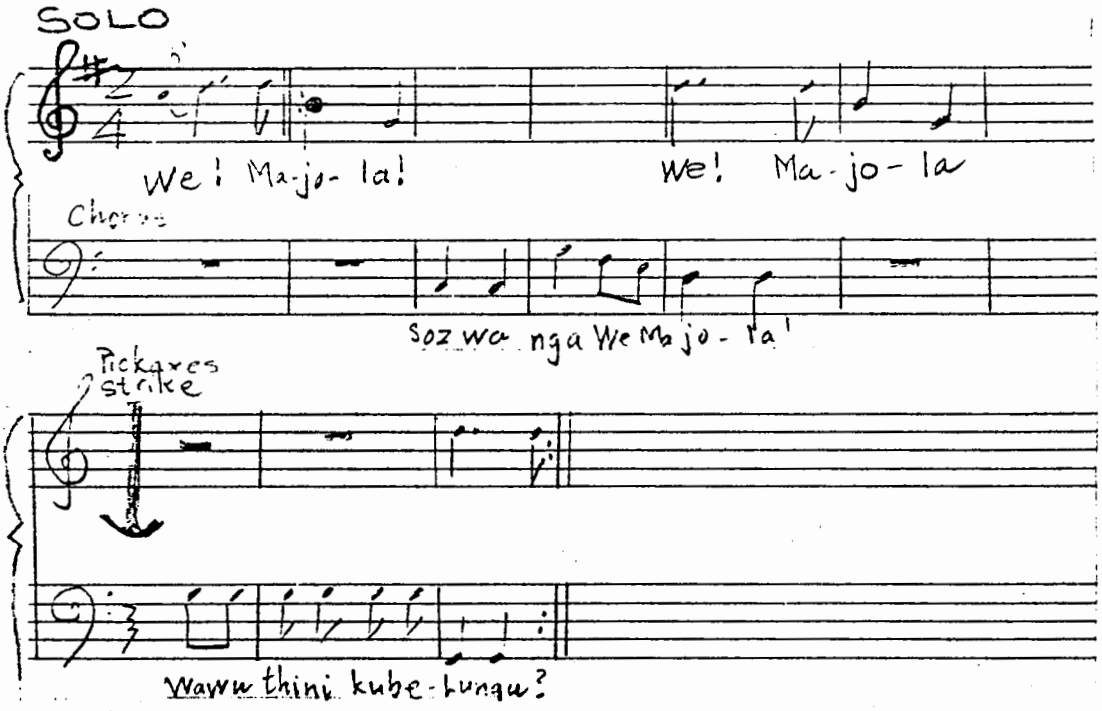
Text:

Yenza kahle Malandela
Yithi uZulu
Yenza kahle Mgwangwa we Zulu
Zithi uZulu

Translation:

Please your honourable highness
Allow us to fight the Boers; they want us.

We! Majola! Transcribed by D. Rycroft, "Nguni Vocal Polyphony," International Folk Music Journal, vol. 19, 1967, p.91.



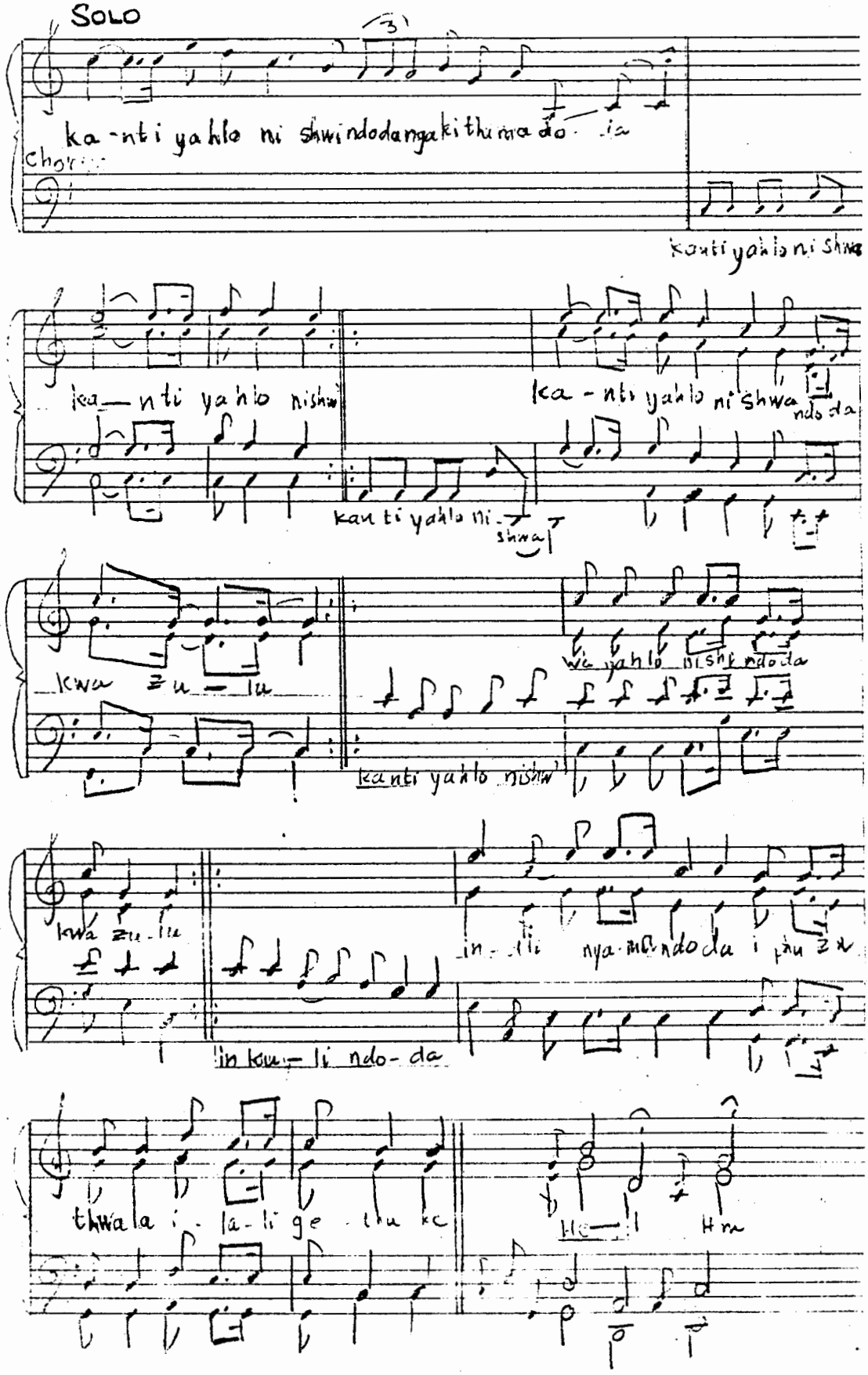
Text:

We! Majola
Sozwa ngawe Majola
We! Majola
Wawuthini kube-Lungu?

Translation:

Hey you, Majola!
Give an account of yourself!
Hey you Majola!
What have you been saying about us to the white men?

Iyahlonishwa Indoda: Source, ibid. p.83.



The full text is:

Kanti iyahlonishwa indoda Kwa Zulu
Inkulu indoda
Idla inyama, iphuze utshwala
Ilale igethuke

Naye mkhulu umfazi
Udla umfino aphuze amahewu
alale bubuluba

'Ayisalali ekhaya
Umthetho wendoda lowo
Umfazi gwinya itshe
Izingane zigwiye uphuthu

Nayi ewasha inabukeni!
Yisilima sendoda leso
Umguba ugobo lwawo
Isiyoyoyo

Ngimfunge ubabamkhulu
'Umbizi zidla umhlonyana'
angizange ngiyibone iwasha inabukeni
Hayi, he, hm.

Translation:

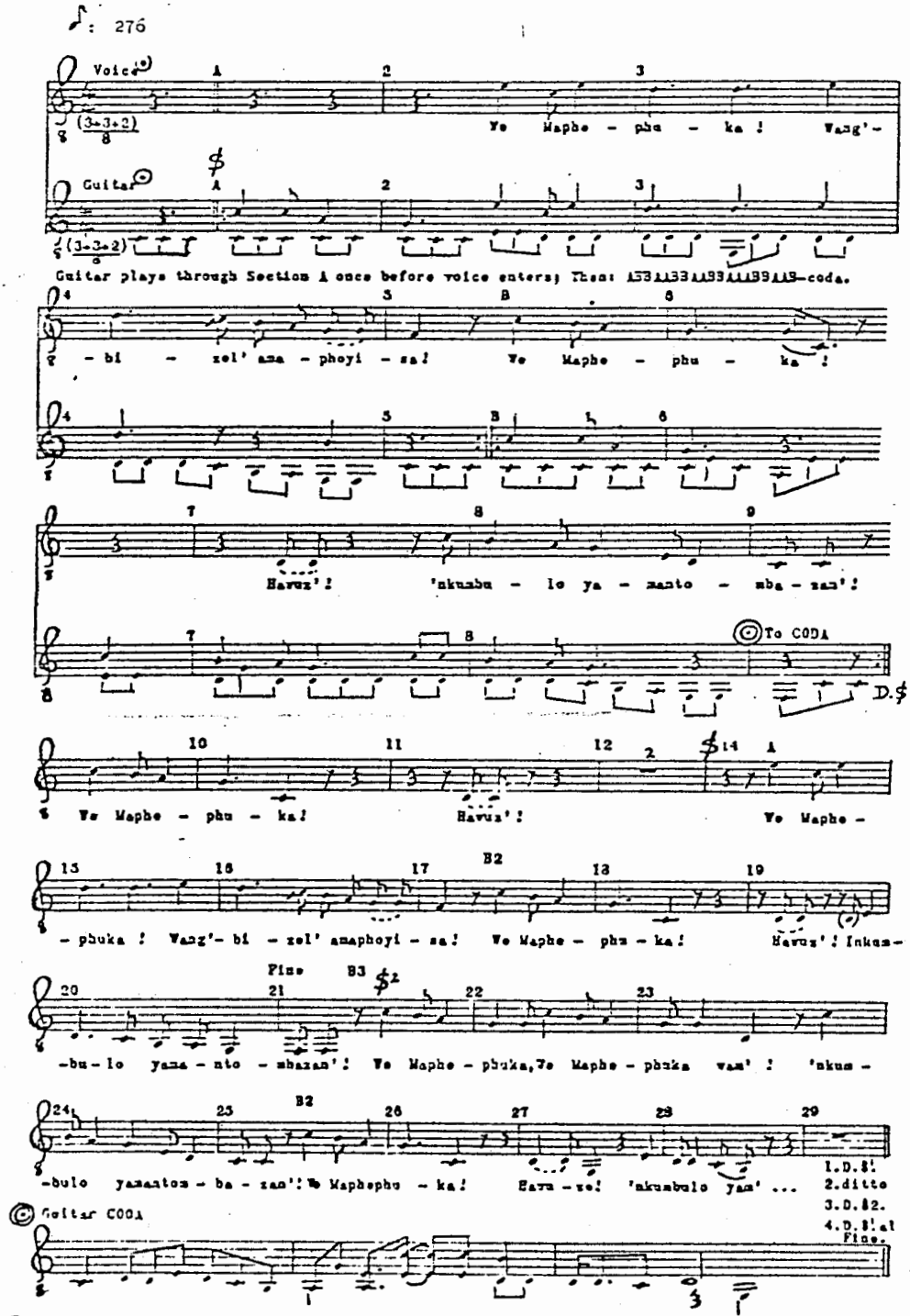
A man is a great person in Zulu [illegible]cy
He eats meat, drinks liquor and [illegible]ces
On his back with his kne[illegible]

A woman is also great
She eats herbs, drinks mabeta (fermented porridge)
and cuddles herself up.

What if a man sleeps out?
That is natural for a man to [illegible]
The wife must swallow a stone (bear it)
and children swallow phuthu (hard porridge)

What about a man who washes nappies?
This is a real idiot
Who is no better than kraal manure
I swear in the name of my grandfather
I have never seen a man wash nappies.

We Maphephuka: Guitarist, Sakhiseni Dlamini, Durban, transcribed by D. Rycroft.



⊙ Original key: E Major (Guitar capotasto at 4th fret; Voice a minor 6th lower than written).

‡ The gist of the text is: 'Hey, turncoat! You turned the Police on me! Oh, the memory of young girls!'

For fuller discussion and analysis cf. Rycroft: 1977,230-4.

Text:

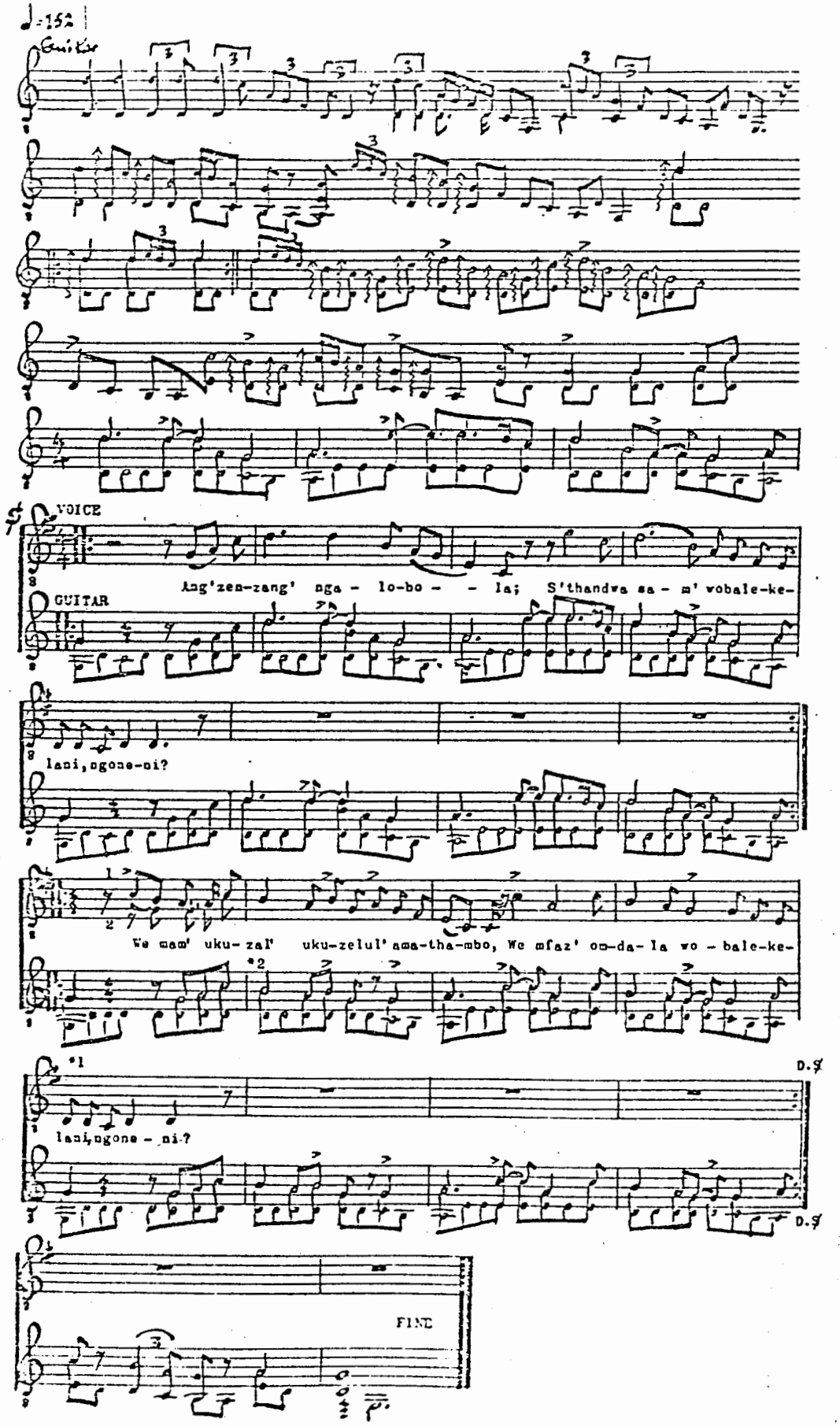
We Maphephuka!
Wang'bizel' amaphoyisa!
We Maphephuka!
Hawuz' 'nkumbulo yamantombazan'

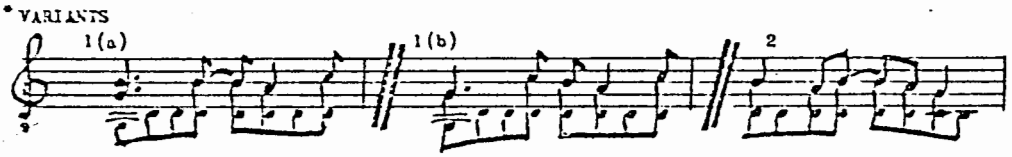
We Maphephuka!
Hawuz'! We Maphephuka!
Wang'bizel' amaphoyisa!
We. Maphephuka!
Hawuz'! Inkumbulo yamantombazan'!
We Maphephuka, We Maphephuka wam'!
'nkumbulo yamatombazan'! We Maphephuka!
Hawuze'! 'nkumulo yam'...

Translation:

Hey, turncoat! You turned the
Police on me!
Oh! the memory of young girls!

Angizenzanga: Guitarist, George Ndlovu, Durban, transcribed by D. Rycroft.





* Original pitch: 3 semitones higher (capotasta at 3rd fret; tuning E A D G B D)

Text:

Ang'zenzang' Ngoneni
S'thandwa sam' wobalekelane ngonge?

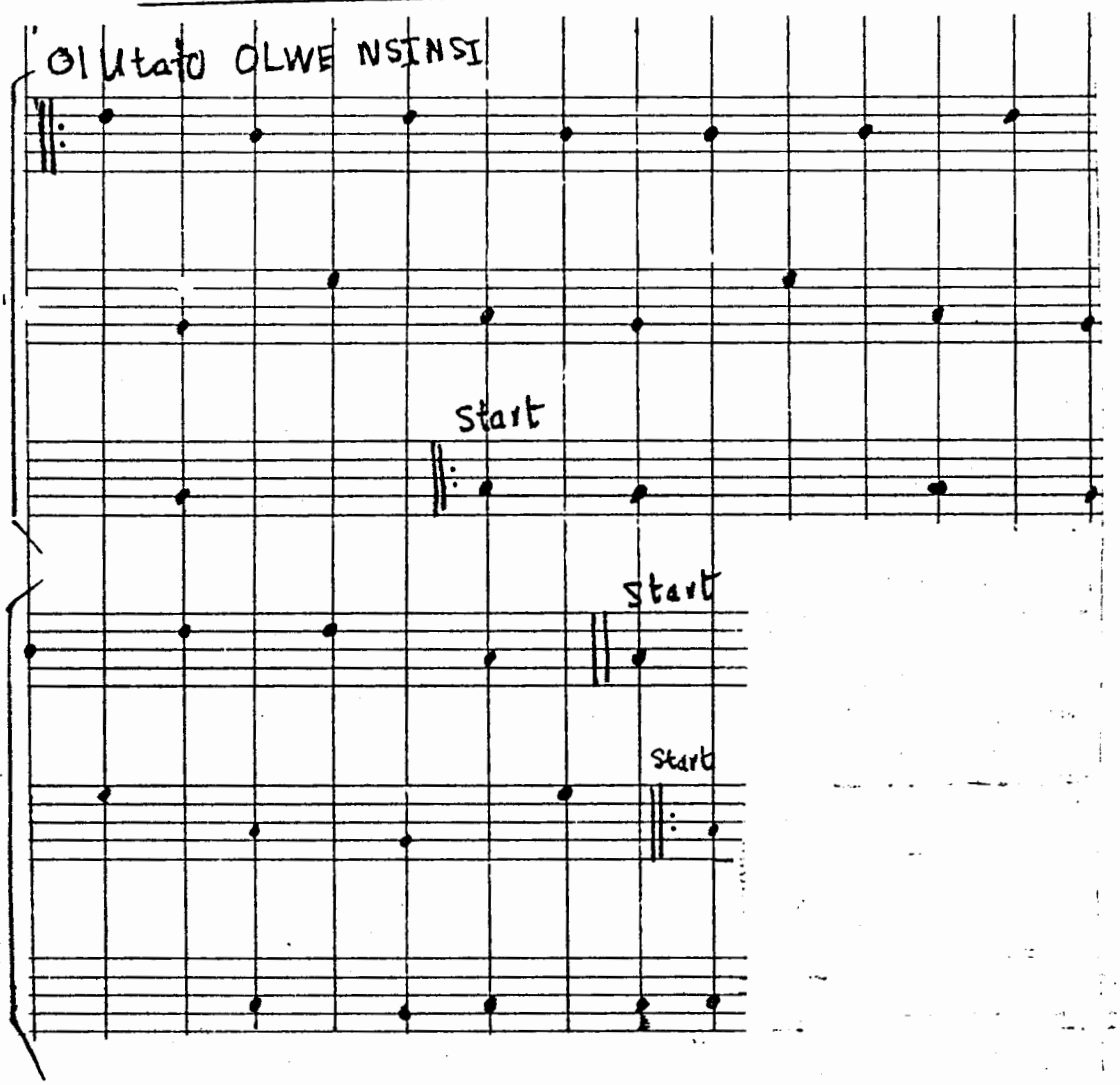
Translation:

I never paid lobola,
My darling why do you run away? Why?

APPENDIX D

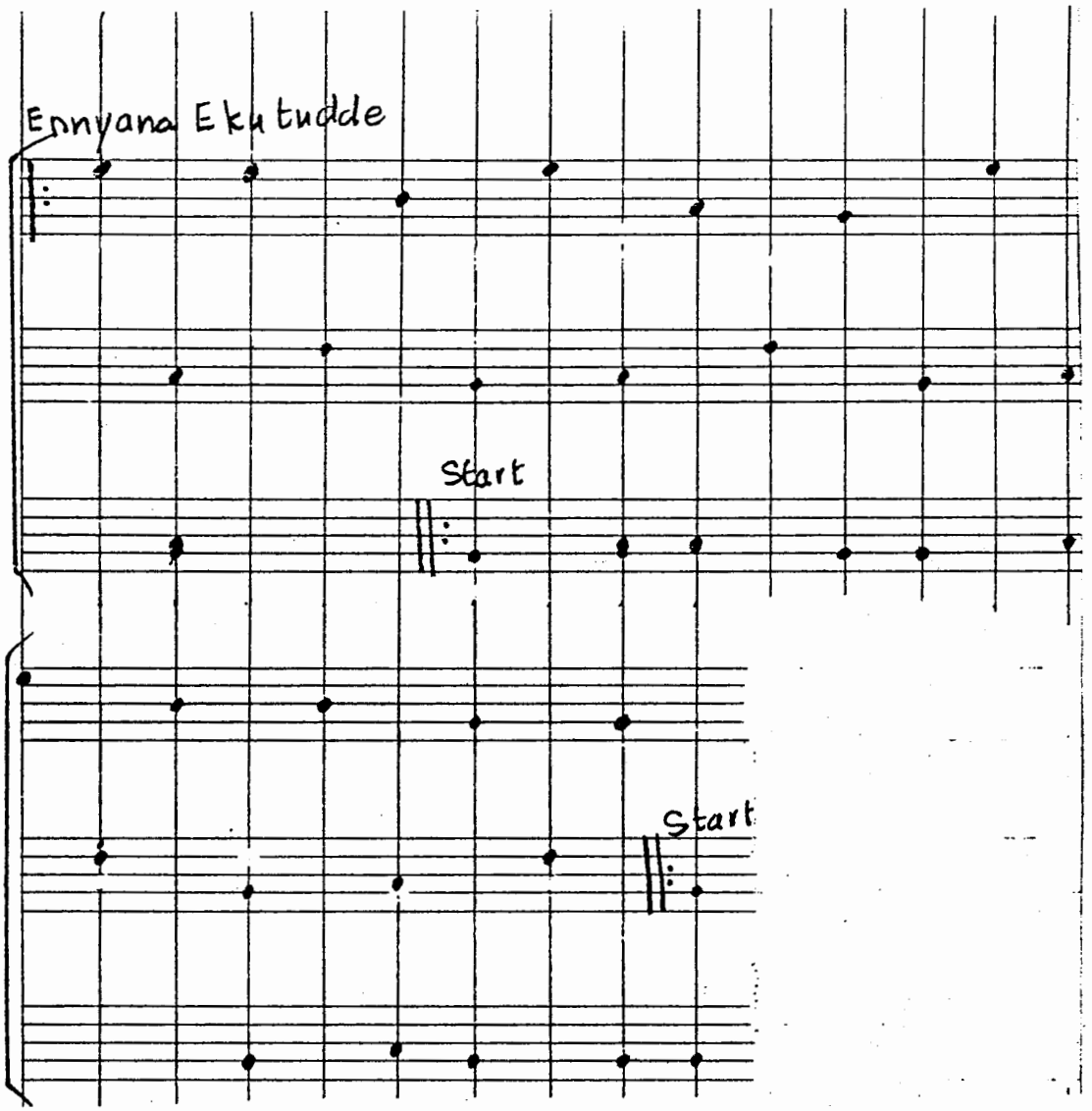
INSTRUMENTAL PIECES

Five Amadinda Tunes

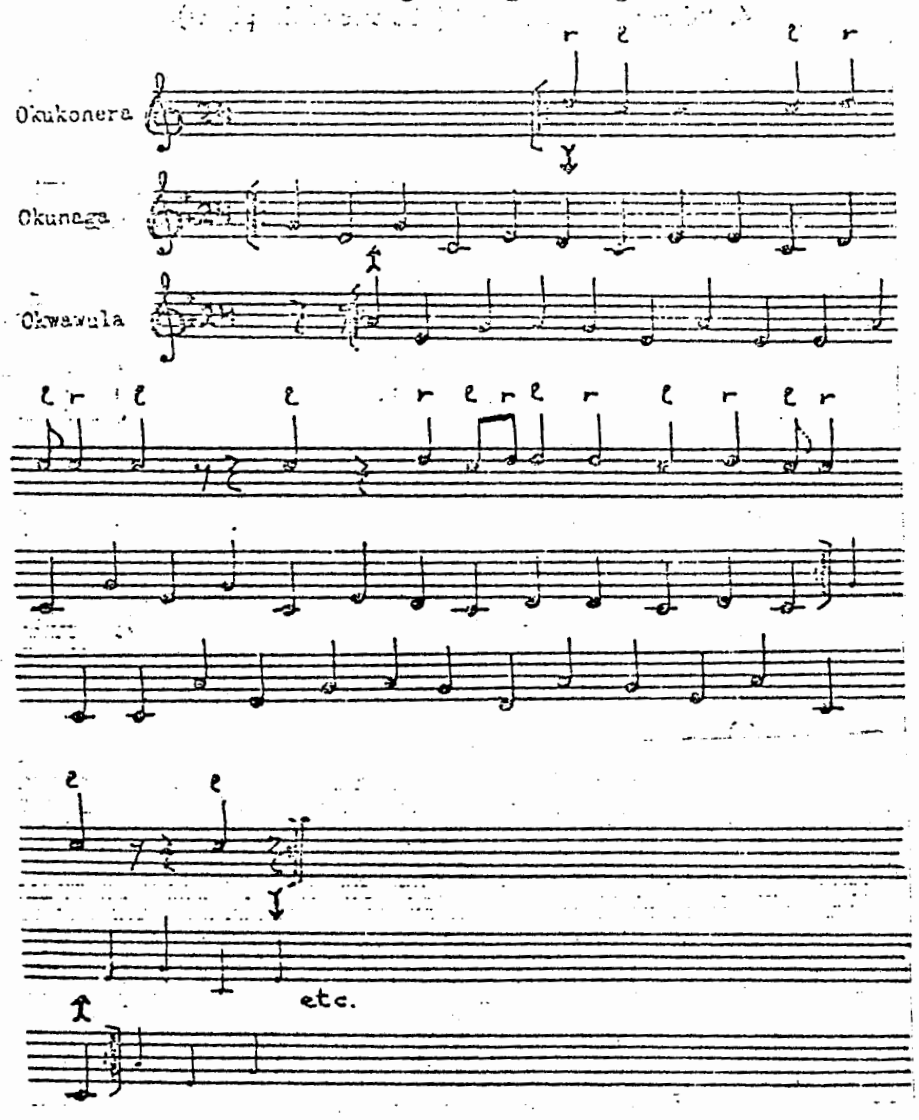


See also. G. Kubik:

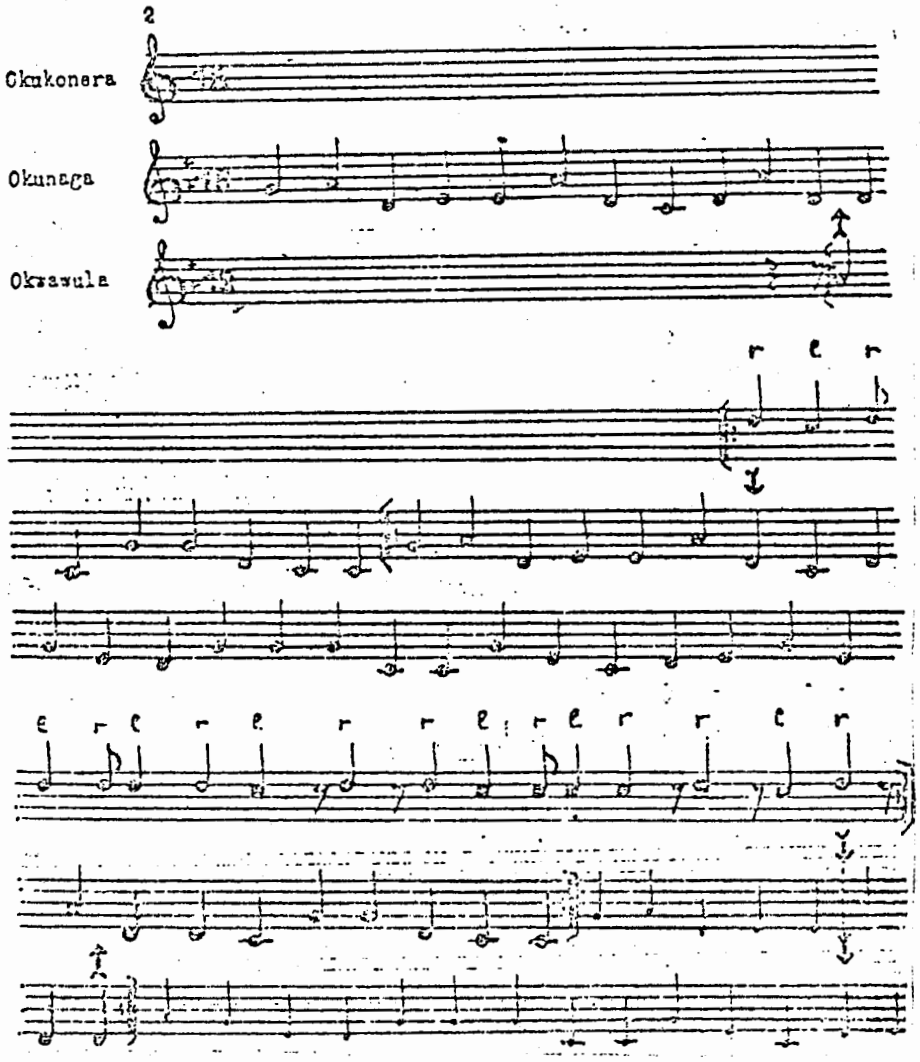
African Music vol 5 no 1 1971


Ennyana Ekutudde
Start
Start

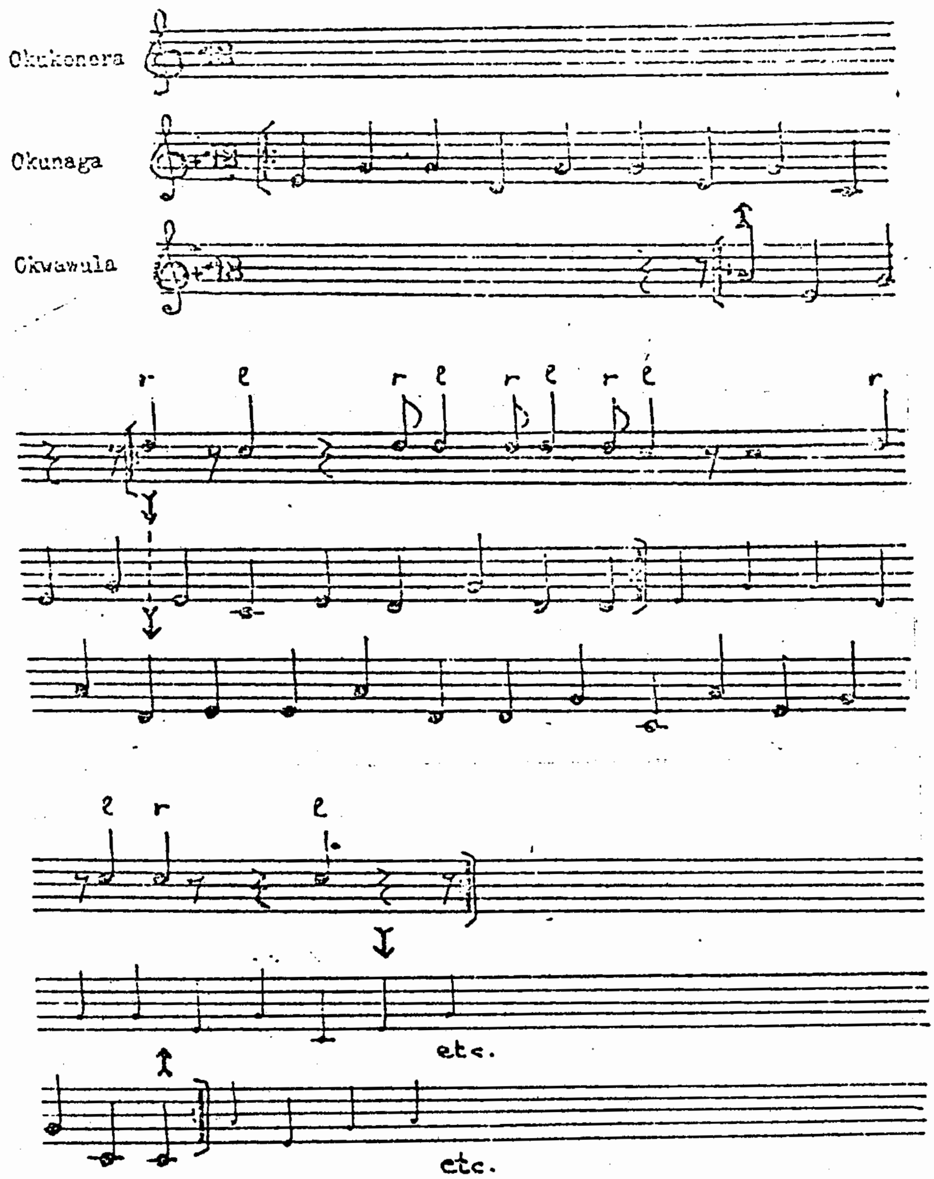
"Atalabanga muan agenda Buiga".



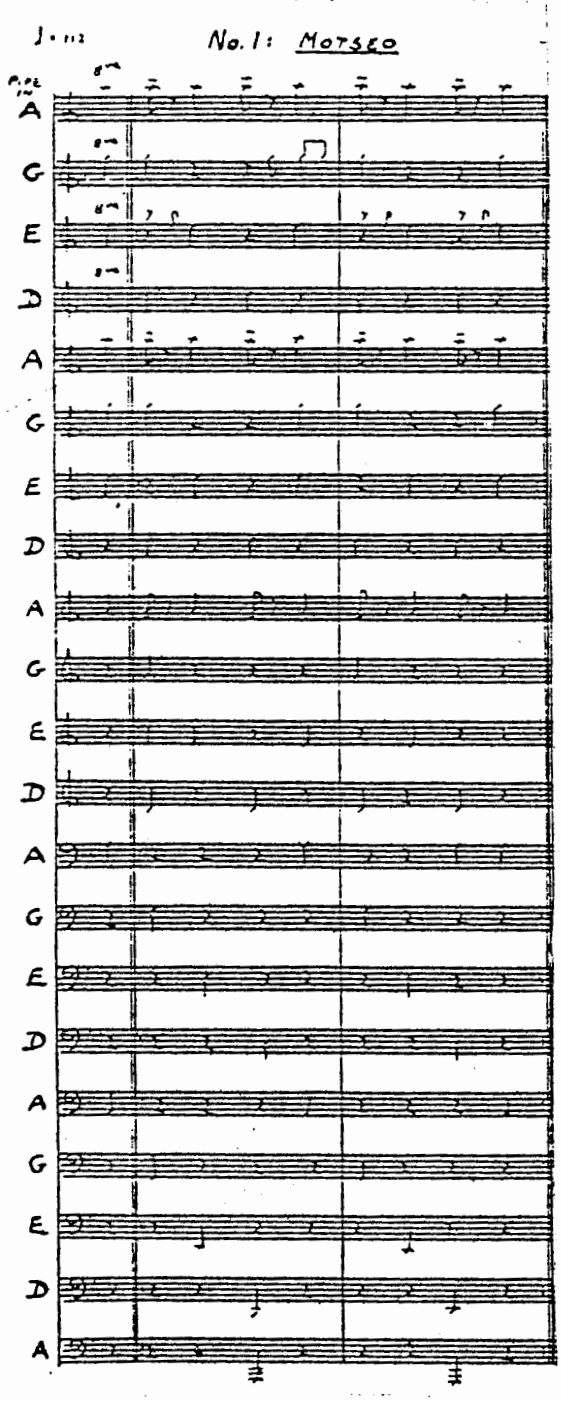
"*Sematimba ne Kikwabanga*" (Sematimba and Kikwabanga).



"Omuwabutwa wakyejo"

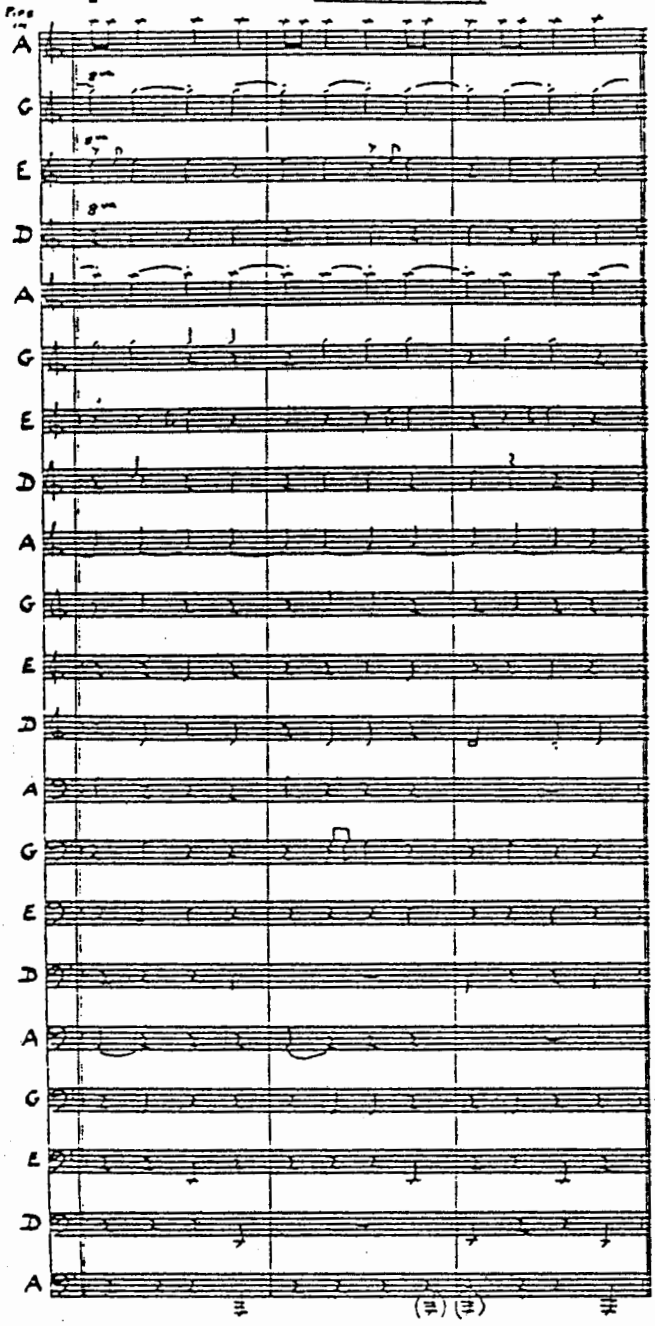


Tswana Pipe Ensemble

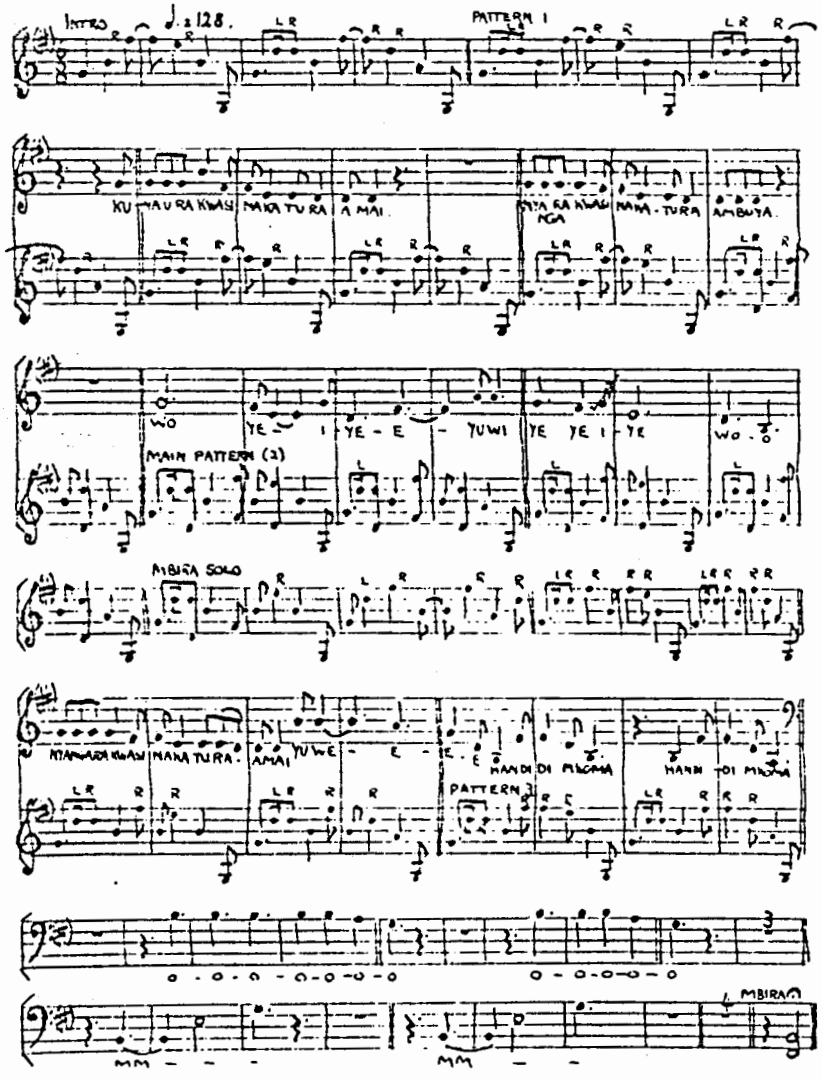


See Also: C. Ballantine
African Music Vol 3 no 4 1965

No. 2: GODUMADUMA



Kalimba Song



"Kuyaura kwasi nakatura"

See also: A. Tracey:
African Music vol 2 no 4/1961.

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