MUSICAL INSTRUMENTS OF THE BELGIAN CONGO

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Thesis

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(A.B., Boston University, 1948)

Submitted in partial fulfilment of the
requirements for the degree of
Master of Arts
1949

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- Ethnological procedures involved and correlations.
- Explanatory data.

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INTRODUCTION

A systematic analysis and cataloguing of the various musical instruments of the indigenous races of the equatorial area of Africa which comprises the Belgian Congo has not been attempted up to this time. Monographs and critical papers have dealt with the musical art and instruments of individual tribes, and have examined them expertly from the point of view of anthropologists or ethnologists. Notable among such papers are, in particular, the Annales du Musée du Congo Belge, at Terveuren, Belgium (especially:- D, Ethnographie et Anthropologie, Ser.III, Vol. I or Vol. III, Fasc. 2:- 1902 - 6) and such works as Les Baluba, by R. P. Colle, [1] Les Basonge, by Cyr. Van Overbergh, [2] and Les Bapopoie, by C. Delhaise-Arnould. [3]

However, these investigations concern the implements and culture of only one tribe or local group of tribes, and consider the musical instruments only as elements of a given social background, presenting them with little systematization which would be of value to the musicologist. Therefore, it is the purpose of this thesis to gather together and tabulate the data which the many monographs provide about musical instruments,

1/ Colle, R.P., Les Baluba, (Collection de Monographies Ethnographiques, Bruxelles, No. X:- 1913).
2/ Overbergh, Cyr. Van, Les Basonge, (Collection de Monographies Ethnographiques, Brux., No. III:- 1908).
3/ Delhaise-Arnould, C., Les Bapopoie, (Bulletin de la Societe Royale Belge de Geographie, Brux., 36:- 1912).

((material given to the author by Rev. Phyllis L. Benner and Miss Annis Ford (Missionaries in the Congo), and description of instruments, examined by the author in the Peabody Museum, Harvard)) and then present the findings in a form which will be comprehensible and useful to the ethnologist and musicologist alike. For this purpose it is necessary to classify all standardized instruments according to four categories (to be explained in the text): idiophones, membranophones, chordophones, and aerophones.

However, a proper study of the musical instruments of any ethnic group must be based upon at least a rudimentary knowledge of the historical and cultural background of that group. This is especially true in the case of the tribes which inhabit the region of the Belgian Congo (see accompanying maps), since cultural ties are common throughout many of the tribal types in Central Africa. Thus the observer may gain insight as to clues and additional problems concerning the musical instruments of one people by the examination of those of another. Therefore, I wish to begin this thesis with what is not properly musicological material at all, but which, nonetheless, seems to be of considerable importance for the understanding and comprehension of later findings in this field. The following brief account of the history of the Bantu peoples of Central Africa [1/]

1/ For analysis of African Prehistory see:- Frobenius, Leo; Histoire de la civilisation africaine, Paris, Glmd., 1936. Johnston, H. H., The Prehistory of South Africa (in Nature, London:- V. 104, 1919.)

has been compiled from data sent to the author of this thesis by his sister, Rev. Phyllis L. Benner, from Belgium. Miss Benner is engaged in completing a comprehensive history of the Belgian Congo region, and is studying in Belgium under the tutorship of Professor Mortier, of Brussels, a Congo scholar of considerable repute.

The story of the formation of the Bantu-speaking group of tribes (which comprises almost the total population of the Belgian Congo area) cannot be recorded without tracing, at least in outline, the growth, development, and expansion of many other tribes in Africa.

When and how the races now known as Negroid first took possession of the continent of Africa has not been ascertained. One theory says that the Negroes came from central or southern Asia. Another states that the Negro race grew up in Africa. We have no way of knowing at the present time which theory is true, although most students of the subject seem to think that the idea of Asiatic origin is the most probable.

Apparently the first settlers of the central part of Africa were those tribes which we call the little Negrillos. They were the ancestors of the people called Pygmies, and were lighter in color and slighter in build than the rest of the Negroid type. Wherever they came from, be it Asia or Africa itself, they started to spread into the area of the lake region north to Lake Chad from the southeast perhaps even as much as 50,000 years ago. They were hunters and

fishermen, and probably remained there for a long time. The Hottentots and Bushmen of South Africa, and the Pygmies of the Equatorial forests are considered to be their descendants.

After a long lapse of time other people began to move into this same area. (Some authorities go so far as to estimate an extreme antiquity for this new migration as about 30,000 years ago.) They came, perhaps, from the southeast and were the first real Negro of the type we know today. The newcomers were nomads, or semi-nomads, perhaps because they were migrating and could not settle down long enough to plant and raise crops. They pushed the little Negrillo out of his land as they moved northward, and many of these dispossessed people fled into the swamps. As the new invaders settled down they became agriculturalists and they even elaborated a common art and religion. The Sahara was not yet a desert and seems to have invited them to live on its rich land. Thus they even reached the shores of the Mediterranean Sea. In these many years of searching for new homes they seem to have mingled with the primitive Mediterranean Caucasoids to form the ancient Egyptian race and the beginnings of the modern Negroid races of Africa.

There came another migration thousands of years after the first migration of the primal Negro type as we know it today. These newcomers pushed out the remaining groups of Negrillos in their movement to the Nort and West of Africa. It was under the stress of these incoming aggressive tribes that the

Negrillos were impelled into the Congo area, finding the dense forest lands there their best chance of escape from the incoming hordes. These new arrivals who finished pushing the Negrillos out of their land had developed agriculture and certain domesticated animals. They seem, also, to have elaborated the working of iron and the making of pottery. Al this migration and mixture of peoples took place before the time of the first Egyptian dynasty.

Thus we see three main types of Negro races in Africa: the Negrillos, the primitive stock which is lighter and smaller than the others; the larger Negro, probably the predecessor of the Bantu race, although that race was not formed for some thousands of years; and lastly the tall, black, Nilotic Negro, who came in the last migration and pushed into eastern Sudan.

More and more the Egyptian historians are coming to see that Egypt and her remarkable culture are related closely to that of the great Africa to the south of her - related in both racial and cultural bonds. Much of her wealth of worldly goods, many of her rulers, and even much of her vitality came from that unknown Africa (unknown to us but undoubtedly not unknown to the Egyptians) which lay to the south.

When Egypt developed she naturally attracted to her the energetic peoples of the south. There seems to have been a steady stream of Negroes passing down the Nile as traders and even as slaves while Egypt was great and strong.

By this time the Negroes had expanded right across Africa to the Atlantic and then curled backward in their push for land, only to meet the Egyptian and Ethiopian influences as far away as Lake Chad. During this period there was much mingling of the races, although the tall Nilotic Negro seems to have mixed much more with the Mediterranean stock than the smaller Negro type did. Both groups mixed to some extent with the Hamites and the Semites they met in their wanderings.

The tide of migration was turned southward later by pressure of Arabs from the north, and from the west and from north of Africa. Slowly but surely the tribes which had come in first after the arrival of the primitive Negrillos began to push and be pushed southward. And as they went, they impelled the Negrillos before them. It is estimated that these ancestors of the Bushmen and Hottentots arrived in southern Africa over a thousand years B.C. Those tribes in the middle - driving and being driven - came gradually to consider themselves as "The People" - Bantu, speaking one language. At first their movement was a slow one, but with the coming of the Moslems to the north their march became very steady.

This movement of the Bantu cannot be ascribed to just one cause. The pressure was great from the civilization on the Nile River. Local kingdoms had grown up around Lake Chad and on the East Coast. For example, the Yoruba-Benin culture on the west coast of Africa was expanding and seeking new territory. At the same time centers were developing in the south-

east in the lake region there. The tales of wealth and opportunity coming from this area may have urged them on. For untold centuries the Congo River valley had beckoned men because of stories of the fertility of the soil and the lushness of the vegetation. These tales may have had their influence upon these moving hordes. Whatever the cause, and it was probably a combination of several reasons, the movement which started out as a slow and small one took on the proportions of almost a continental migration.

The first movement may have been from east to west to the Gulf of Guinea, but the main and stronger movement came later and was eastward. The great tide seems to have skirted the rich and dense forest of the equator and arrived at Lake Tanganyika. Here it was split into two groups, one continuing down the east coast, one turning westward into the Congo Valley. The horde of invaders who chose the westward path into the valley of the Congo River broke up into three groups: one group swept northward into the Cameroons; the second moved southwest to the southern Congo valley and to what is now known as Angola; the third moved southward and settled with the Hottentots and Bushmen.

When this long migration began two or three thousand years ago it was made up of many tribes who differed widely in their physical characteristics, customs, and language. Their march over the same areas for many years gave them a sort of group spirit as tribes bound together by similar customs and one

language. As they moved along, conquering or driving out all people and tribes in their way, they themselves became united. Much of this unity remains today, a unity of culture and language, for as a racial group there are wide and diverse strains in these peoples.

We are interested primarily in those Bantu tribes which turned westward and went into the southern Congo valley and into Angola. They later developed into industrial and state-building people. As they came in and settled down on the land they found little or no defense in the land itself against the later comers in that same stream of migration which they themselves had started. There were no natural, protecting barriers once the initial barrier had been crossed. For hundreds of years those same pathways which they had opened continued to be open to those who followed them. And the people and tribes poured in by the thousands. There was only one defense for these people who had come in first in this long migration, and that was to build states as walls against the latecomers. Thus it was that states grew up at the mouth of the Congo River, one north of the Congo called Ansika, the kingdom of the BaLunda near the Kasai and the Zambezi Rivers, the kingdom of theMataman rulers south in the land of the Hottentots, the kingdom of the Bechuana in the present area of the Union of South Africa, and later the Zulus in the same locality. These were all Bantu empires built up in attempts toward self-protection.

These kingdoms had to fight for their very existence, and all of them perished for two main reasons: (1) those outside of the ruling empires made continuous war on them. The main reason for this war was their desire for slaves; slaves were one article of the systematic commerce of the area. (2) In the sixteenth century A.D. the highways of trade between Africa and the Mediterranean were severed by the Moors. At the same time trade with Asia was cut off by the Turks. The slave trade with the Europeans was the only commercial outlet for the traders, and this threw the empires into the turmoil of internal war. Only one more thing was needed to sign the death warrants of the native kingdoms, - the partition of the continent by Europeans.

This, then, is a brief, and naturally abbreviated history of the peoples who inhabit the central portions of Africa. It is important to note the interrelation of all the Bantu groups of the large zone of the Congo basin, especially their common cultural and linguistic ties. The geographical distributions of the various types on instruments, as shown in maps at the beginning of various sections of this thesis, are ample evidence that this is one large, quasi-homogeneous people, developing their systems of sound instruments along parallel lines. Moreover, the realization that for these peoples during those eons of migration, music - vocal and instrumental, augmented by dancing - was the most adequate and satisfying mode of expression of fear, longing, and worship - this realization makes clear

to the observer the great significance of sound instruments in the lives of these people.

It is useful to note here for reasons of anthropology that in the Congo differentiations may appear between various wide-spread and outlying areas, which, in themselves, may show continuous uniformity with neighboring sections of countries contained in different protectorates. For example, the Lunda people (called BaLunda in the text: the Ba - or sometimes Wa - being a generic plural preface) are the remnants of a once-powerful kingdom. They exist not only in the southern sections of the Congo, but also in northern Angola and Rhodesia. Likewise the Rundi group in the interlacustian region extend into Tanganyika. In both cases, the topography of the area usually signifies the general diffusion of tribal types, which are divided up very arbitrarily to fit into the protectorate zonings. For instance, the Lunda live in the grasslands which skirt the southern edges of the Congo and extend much further to the south. The Congo area is, for the most part, an equatorial jungle belt, which partially accounts for the homogeneity of the tribes which inhabit it; but the southern and eastern sections (interlacustian) are flat grasslands, and some of the Sudanese tribes of the north border on the hinterlands of the desert. One should naturally expect to find the material culture of such differing environmental areas to be equally unlike. Therefore, although a general homogeneity of tribes in the Belgian Congo area might be cited, yet there are

differences, and the only reason why the arbitrary delimitation of the political boundaries has been employed here is that it is convenient, not that it is significant.

The genesis and evolution of such musical instruments (in dealing with primitive groups the observer must consider as musical instruments all devices with which sound can be produced intentionally) is difficult to trace, and can be dealt with only theoretically at present. It seems logical to assume, with not further discussion here, that in the main each type of instrument originated in one spot on the earth, and then spread in a sort of wave-expansion motion to its present area of distribution. (This is the theory of monogenesis). Other theories, such as polygenesis or evolutionary parallels, may be relevant, but for our purposes (considering the comparatively small size of the area and the directions from which new developments might enter) the monogenetic theory seems adequate. 1/

In general it is possible to form conclusions as to the relative age of various instruments from their present distribution throughout the world. Several principles are involved here: 2/

1/ For a discussion of this problem see Sachs, Curt, Geist un Werden der Musikinstrumente, Berlin, 1929; and Hornbostel, E.M. von, Ethnology of African Sound-Instruments (Africa, London, VI:1933).

2/ Adapted from Hornbostel, E.M. von, Ibid., p. 278 et seq.

(1) Universal distribution: the more widely they are spread, the older they are. This is similar to the effect of waves in a pool: the farther they have gone from the starting point, the longer they have been travelling. If a certain type is to be found practically everywhere, then it is of extreme age.

(2) Contact at the boundaries of adjacent distribution-areas. Phenomena thus resulting will show characteristics which are weaker than either of the causative factors. Thus those which show clearly defined features may be considered as older than those which are weaker or altered.

(3) Breaking up of the boundaries of a distribution-area by wedges of other cultural elements which, since they are intruding upon well-established forms, represent newer developments.

(4) Populations driven into refuge areas (swamps, forests, mountains, etc.) of the world, and thus isolated from newer developments, represent very great antiquity.

With the aid of these criteria, the observer may draw up tables of relative antiquity for instruments, from the primitive to the highly-advanced. As a general statement - and one which seems obvious - it may be said, first of all, that the growth of types is no orderly thing; and, second, that no one type may be considered, even in its most primitive form, as the sole, primal one, but that several (percussion idiophones, rattles, clappers, aerophones, and even chordophones) may be

found as coextensive in the lowest cultural levels.

Most cultures may be catalogued according to complexes of characteristics, the so-called Kulturkreise, which represent the level of development, or culture, existing in the area of its origin at a given time. As the circles (Kreise) expand the various elements of the respective cultures must expand together and also form new combinations. This process is especially apparent in the regions of Central Africa, as must be evident from the foregoing historical discussion. Thus the problem is concerned with a distinctive culture-circle which represents a fusion of several others, but which, nevertheless, is unique, and strong, not merely a weak imitation or watering-down of other forms.

Of all the phenomena which may be associated with a given grouping - the economic, religious, mythological, and social - it may be said that the social ones are nearest to the vital essence of the culture. Correlations between other elements, and material evidences, and the mentality of the culture admit of too many overlappings between levels, and too many "exceptions". Instruments may be considered as "masculine" if used only by men, employed during initiation rites for boys, being crudely suggestive of male characteristics because of shape (like the penis), and sound (depth and gruffness), tabu for women, or having connections with solar mythology (all this might suggest patriarchal culture). Or they may be classed as "feminine" if equated with the

womb, associated with the moon or the tides, played with a stick, or played by women (aspects of a culture in which the role of women is given relative emphasis). But these classes are not mutually exclusive, because of a variety of opposite meanings which may be given to each. Thus the slit drum, although it obviously resembles the womb, and is often described as a feminine instrument, may be used in varying cultures, in boys' initiations or kept in men's houses (those houses in which only men may appear, especially during initiation ceremonies), and so on. Thus we may see that even in the case of sexual differentiation - often considered to be a basic factor in culture determination - definite, clearly-defined criteria cannot be obtained. Without further discussion here it may be asserted that this is true with other correlations with material culture, and that general social levels and distribution of characteristics throughout the world must be our standards.

So many culture-levels are represented in Equatorial Africa among the Bantus and Sudanese, that (concerning the distribution of instruments) it becomes most convenient for our purposes to classify them according to a number of tentative groupings, referring wherever possible to the extra-African distribution of characheristics. These groupings do not imply that there is any connection between them and the African parallels, but merely suggest directions in which contacts or similarities may be sought. The groupings are

as follows: 1/

1. The earliest cultures: either widespread distribution or in widely scattered areas;

2. Ancient Sudan, earlier stratum: widespread, but in a restricted area;

3. West African Culture: West and Central Africa (with extensions into Oceania, South and East Asia, Northern South America);

4. Mid-Erythraean: East Africa (Oceania, South and Southeast Asia, South America);

5. Pan-Erythraean, Ancient: Indonesia to Africa (not Madagascar);

6. Pan-Erythraean, Recent: mostly only from India to Africa;

7. Ancient Southwest Asia - Ancient Egypt: as far south in Africa as the Kasai basin; eastward to Burma and Indonesia;

8. Pre-Christian: Arabia, Sudan, East Asia;

9. Post-Christian, Pre-Islamic: West Asia, West Africa, Madagascar, Indonesia.

In the following chapters, figures in parentheses after generic names for instruments will refer to these ethnological groups, and those representing local developments of cultural elements which originated elsewhere will be so-indicated with an (A).

1/ Adapted from Hornbostel, E. M. von, Ibid.

It must be considered at all times during this discussion that the Bantus are very musical people, Indeed, this form of expression is a truly integral part of their lives; often they would rather produce some weird noise on a nut, berry, shell, blade of grass, or even a creeper held between the teeth, or perhaps chant in their almost toneless way than express thoughts in words. Here almost any natural object can become a musical instrument for, as was noted previously, the main object is not the emission of acoustically regulated vibrations, but is rather sound, in whatever form, for rhythmical background or mythological connotations. If noise is the end desired, then nuts, rocks, pebbles - all objects of a certain resiliency and tensile strength - can be utilized. However, with certain exceptions, these primitive and "formless" devices will not be mentioned in the text of this paper, but will be understood tacitly.

For convenience in finding on maps the distributions of instruments as they are discussed in the material of the thesis, the following procedure is employed: instruments of similar types and characteristics are described according to locations of the tribes of their occurrence, beginning with those tribes at the mouth of the Congs (Ba ongo, etc.), proceeding up the Congo River to Lake Tumba (Nkundo, BaNgala, etc.), and lastly southward to the large area west and southwest of Lake Tanganyika (BaLuba, BaSonge, etc.). This is an arbitrary sectioning, and is not intended to be any indication of tribal development

or cultural forms.

Pronunciation of the alphabetical rendering of Congo words is, in general, the same as that of Italian words. However, every letter must be enunciated clearly (as the N in Nkundo), the G is always hard, and ch is rendered as in chose.

It is impossible to write down correctly the melodies and scales of extra-European systems of music, since they usually employ quarter-tones, or at least intervallic structures which are smaller than the European ones. Therefore, in the body of this thesis, notes which are slightly higher than corresponding tones of standard pitch(A 3 is 440 c/s) will be so marked with a plus (+) over the note, and those which are lower with a minus (-). If the difference is very close to a quarter tone (allowance of 10% must be made for almost all acoustical instruments), then it will be indicated thus: + 1/4.

The instruments of the Peabody Museum, Harvard, examined by the author, do not have any markings giving their place of origination. Therefore, in order to avoid making any mistakes, I do not wish to bring forward any probable native locations for them, since these would be only conjectures, at best. (The tones of the above instruments were measured by means of an audio-frequency oscillator, the possible error of which may be considered at plus or minus 5%.).

Parallel developments of instruments according to ethnological scales may be ascertained easily from the listing of

numbers of ethnological groupings with each type. Because this is not a sociological study, no formal comparisons or findings will be presented here, but may be considered as background material at all times.

This discussion has been compiled from a number of monographs, short ethnological or anthropological dissertations, museum publications, interviews, and personal observations. Although these sources may be considered authentic and complete in themselves, yet each investigates the phenomena of highly localized areas and tribes, and it is all to probable that many of the smaller, more isolated groupings have been ignored. The maps which have been included show only the distribution of instruments which are mentioned specifically in the text; all conjectures, assumptions, and conclusions, other than observed phenomena, are omitted. However, despite these limitations, I believe that the following is a fairly representative sampling.

Approximate tribal locations:

BaKongo, etc.: A

Nkundo, BaNgala etc.: B

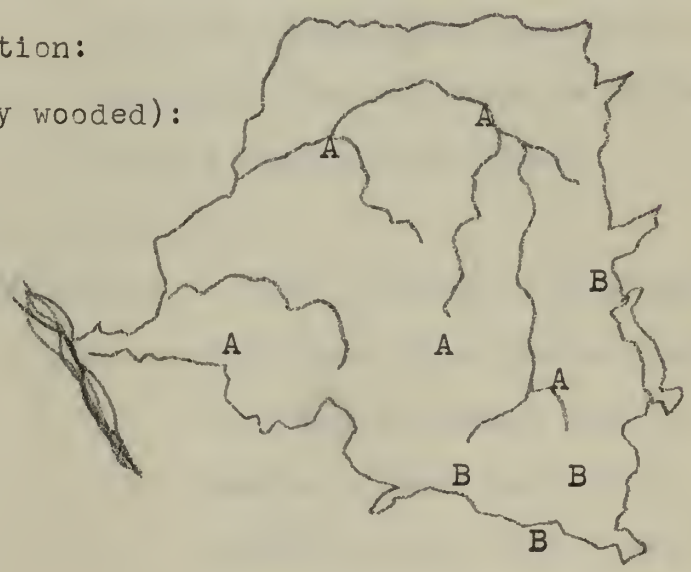
Mangbetu (and other Sudanese tribes): C

BaLuba, etc.: D

Types of vegetation:

Jungle (heavily wooded): A

Grasslands: B



Part 1

IDIOPHONES

Part 1 - Idiophones

Definition: instruments in which vibrations are produced primarily by wood, stone, glass, metal, etc., but not by a membrane, string, or air column.

A. Clappers - concussion sticks (1)

Definition: instruments in which vibration is produced by striking two sticks together.

B. Rattles

Definition: an instrument the parts of which are struck against each other by shaking the whole.

1. Rattling vessels

Definition: a vessel which has been filled with pebbles, nuts, and other small, hard objects; the non-sonorous bodies strike against the sides.

a. Tube rattle (1)

Definition: a tube, closed at both ends, which may have thorns inside that point inward, and into which have been introduced small, hard objects which trickle past the thorns when the tube is tipped or shaken.

b. Gourd rattles (2)

Definition: a gourd, filled as above, with or without thorns thrust into it, held by the neck or by a stick which has been pushed through it.

c. Basket rattle (2)

Definition: a woven case of reeds or other basketry enclosing hard objects as above.

d. Pellet bell (4)

Definition: a curved metal shell which contains pellets of natural objects or metal balls which may roll freely when the whole is shaken.

2. Suspension rattles

Definition: small, hard objects, such as nuts, sticks, and shells, tied or threaded on strings, so as to strike against each other when all are shaken.

a. Strung rattles (1)

Definition: small, hard objects such as nuts, shells of small fruits of <u>ebumi</u> or calabashes,

threaded on strings, and attached to the body.

b. Stick rattles

Definition: shells containing hard objects, a number of which are attached by means of cords to a stick or bow.

C. Bells

Definition: an instrument consisting of an open cup or bowl, the edges of which vibrate when struck.

1. Clapper bells

Definition: instruments struck by a movable clapper which swings within the bell when it is swung to and fro.

a. Natural bell (4)

Definition: instruments made of a dried shell of a fruit with a movable stick attached inside.

b. Wooden bell (4)

Definition: instruments carved in wood, with a movable stick attached inside.

c. Forged iron bell (5)

Definition: instrument made of metal bent

in cup-shape, with clapper attached inside.

2. Bells without clappers

Definition: instruments held stationary and struck from without by a beater.

a. Wooden bells (A)

Definition: hollow wooden vessels, the edges of which are struck by a beater.

1' Tubular wooden bells (3)

Definition: carved, tubular vessels of wood, struck on outer edges by a beater.

2' Slit-drums (3)

Definition: large hollow wooden vessels, which have been scooped out through a narrow slit or crevice, struck on the outer lips by beaters.

a' Simple slit-drums

Definition: instruments carved simply from the section of a tree trunk.

b' Ornamented slit-drums

Definition: slit-drums provided with parts of human or animal

bodies as elements of the overall ornamental design.

c' Trapezoidal slit-drums

Definition: slit-drums carved from a hewn block of wood, having a parallelogram or trapezium as a plane side adjacent to that side in which the slit is located.

d' Multitoned slit-drums

Definition: instruments having graded thicknesses to the sidewalls so that tones of varying frequencies may be emitted.

b. Welded iron bell (A)(5)

Definition: the edges of two half-bells are welded together.

c. Double metal bell (A)

Definition: a pair of welded bells without clappers are united by a bent handle of iron or wood.

D. Scraped idiophones (1)

Definition: a non-sonorous body is rasped along the edges of a serrated sonorous body.

E. Plucked idiophones - sansa (A)

Definition: an instrument in which a set of lamellae, fastened on a resonator over a bridge, are plucked at the free end.

1. Sansa with bamboo lamellae

   Definition: instrument provided with lamellae of bamboo or other non-metallic material.

   a. Bamboo lamellae fixed on a board resonator.

      Definition: bamboo lamellae fastened to a simple, flat, board resonator.

   b. Bamboo lamellae fixed on a box resonator.

      Definition: bamboo lamellae are fastened to a hollow vessel, like a box, usually not fully enclosed.

2. Sansa with iron lamellae

   Definition: instrument provided with lamellae of beaten iron strips.

   a. With board resonator

      Definition: the lamellae are mounted on a flat surface of a simple board.

   b. With bamboo-raft resonator

      Definition: the lamellae are mounted

on a series of hollow bamboo segments in the form of a raft.

c. With box resonator (wood)

Definition: the lamellae are mounted on a hollow vessel of wood.

d. With gourd resonator

Definition: the lamellae aremounted on a plane surface which is attached to a segment of a gourd.

F. Percussion idiophones

Definition: instruments struck upon with a non-sonorous body.

1. Percussion beam (1)

Definition: a bar suspended horizontally between two loops, struck with a beater.

2. Xylophone

Definition: wooden slabs supported at two points and struck with a minimum of two beaters.

a. Log xylophone (3)

Definition: slabs laid on two parallel logs.

1' Sledge xylophone (A)

Definition: slabs laid on a frame like a sledge.

2' Tray xylophone (A)

Definition: slabs laid on a shallow wooden tray.

b. Gourd xylophone (5)

Definition: a log xylophone using gourd resonators under the slabs.

1' Table xylophone (A)

Definition: slabs laid on a stand like a table.

2' Bail xylophone (A)

Definition: slabs laid on a straight frame similar to above, but suspended from the player's body by a cord and held away from his body by a bow.

3' Concave xylophone (A)

Definition: slabs attached to a semicircular frame and suspended from the body as above.

3. Percussion bells

Definition: instruments held station-

ary and struck from without by a beater so that the edges of the instrument vibrate.

I. A. Clappers - concussion sticks (1)

Although these are very common in Africa as rhythm instruments, they are usually mentioned only in passing in the various monographs. This is because the natives make their clappers frequently from whatever hard material they find at hand - nuts, shells, flinty rocks. pieces of metal, etc. - and thus observers rarely deem such concussion instruments important enough to record. The tribes in the general sector of the Mkundu, or the north-central portion of the Congo, do, however, have a definite instrument which they call the benkeke or bakotombolo, made of four batons or pieces of wood. One person holds two of them while another strikes these with two others. The principal use of this benkeke is to introduce the beating of the lokole (See: I. C. 2. a. 2' a'.) at the occasion of the sacrifice of a slave or she-goat at a big festival for the driving out of the devil. After having beaten the benkeke for some time, they replace it with a small lokole, which, again, is replaced by larger ones. Sometimes two of the sticks are struck on the knees of the human victim. There is a similar procedure when a wrestling match is begun, only here two sticks are used, not four.

I. B. 1. a. Tube rattle (1)

Although this type of rattle is common in the Congo, few detailed descriptions have been given by observers.

The WaSongola tribe, just west of Lake Tanganyika, has a small tube rattle called kilibu. It is carved from a root, in which there is placed a small pebble (in this respect it is similar to the pellet bell type of rattle, except that the latter is either spherical or oval, whereas this is elongated and tubular).

I. B. 1. b. Gourd rattle (2)

This is undoubtedly the most common type of rattle in the Congo area. The gourds are usually calabashes, ebumi fruits, or other quasi-spherical fruits; these are filled with small pebbles, pearls from trading, or resonant nuts and fruits of diminutive size (of bosenge, lifambu, or benkongojwa). They may be shaken singly or in groups, and are employed most frequently at dances.

The BaKongo, who are near the mouth of the congo, use two such gourds. The first is of simple construction, approximately 16 by 20 cm., filled with small pebbles. The second is similar to this, but is perforated with small holes.

The tribes around the Nkundo, or north-central Congoland, call their gourd rattles bowoko, which is a generic name, and use it for dances. It can be made of three types of materials: a small calabash, two joined shells of litofe fruit, or a small pannier of basketry. When it is made of a small calabash the names for it according to tribes are:

Nkundo and Mbole of Loikala: boyeke

Mbole of Bus Bloc and BaKutu:	bonkese
Bosaka:	boyeke
Boyela:	itsekelaka
Bongando	itekeleke

When made of two joined shells of the litofe fruit (from the India-rubber type creeper botofe), the names, according to tribes are:

Nkundo:	bowoko
Mbole of Loilaka and Ngombe:	isaka
Mbole of Lomela and Bakutu:	ifekele
Booli:	inkutumba
Bongando, Boyela, Bosaka:	likutumba

The basket type bowoko (number 3 on the previous page) will be included in the discussion of Rattling vessels, basket rattles.

A gourd rattle similar to that just described is the bagezege of the Ababua, a Sudanese tribe in the extreme northern portion of the Congo. It is made of the shells of two hollowed gourds which have been joined together by a packthread, and filled with small nuts and pebbles. In being played one of the sections is held in the hands and rotated quickly to the right or left; this makes the other ball rotate also, but with a lag in its movement which makes it out of phase with the motion of the first. This causes the two to strike each other smartly at intervals which may be regulated by governing the

speed of revolution of the first shell.

In the region of Lake Tanganyika, the WaBemba have a gourd rattle which is known as the nzali, used only by women. It is a little toy made from a calabash with some grains of dry maize in it. This is apparently the only instrument which belongs properly to this tribe, since all others seem to have been adapted from those of the Arabs or sorrounding tribes.

The minyange rattle of the BaLuba (southwest of Lake Tanganyika) is made of hardened shells of fruit from which the pulp has been replaced by small grains, and may be found in two forms:

(1) Small ones made of two or three balls attached on a stick of wood which goes through their axes. These balls are of the general size of an apple, and have a very hard skin.

(2) Large ones, gourds in the form of gigantic pears. The interior surface is provided with strong thorns which are thrust through from the outside; these scatter, with each jerk of the gourd, the small, hard grains which have been placed inside.

The BaSonge tribe, next to the BaLuba, has a very small rattle in the shape of a dumbbell, enclosing grains of cane. It is known as the sanki.

These rattles are often used by traveling minstrels and dancers. A good example of this may be found among the Wa-Rundi, also near Lake Tanganyika, where itinerant players use

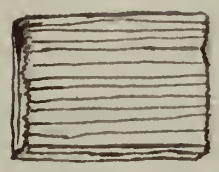
enormous rattles made of gourds filled with pebbles when accompanying dances and songs. These rattles are very powerful, making a deafening noise when shaken in groups.

I. B. 1. c. - Basket rattle

The BaKongo at the mouth of the Congo River have two main types which have been recorded:

(1) a small rattle woven in raffia, in the shape of a dumbbell, the two enlarged ends of which contain small nuts.

(2) a larger box-shaped rattle made of thick reeds which enclose a large number of small pebbles.



Further north, in the region of the Mkundo and surrounding tribes (previously mentioned), the lisanga is the most important of those rattles recorded. It is plaited of creepers, almost always double, the two spheres being united by a thick stick which is enveloped with creepers and often with fur.

Each sphere contains a varying number of resonant fruits, generally cut in two sections, from which the meats have been extracted. Usually these fruits are those of the bosenge, bosangalima, and especially the nuts of the bafambu (fruits of the bofambu). Instead of being spherical, the wicker frames which contain them may be pyriform. In the middle of each there is a small stick, which is a continuation of the handle section. While it is being shaken, the fruits bump against each other and against the middle stick. It is used to mark the rhythm of many dances (for communal amusement, women dancers, etc.). It is very common in this area and is in great vogue.

The bowoko of these same tribes has been mentioned before under gourd rattles. This form of the bowoko is a small, covered pannier or double flat wattle of ± 20 by 15 cm., like a small, portable box, which is called the esokokeleka. It is also used especially for dances, and is often preferred for this use over the other types of rattles. It may be found especially among the Elanga of Losanganya, the rear Bokote section, as well as the Mbole, BaKutu, Ekota tribes.

Further north, on the other banks of the Congo River, the Bangala use the mungenju, a small hard rattle with a wooden handle, having in it anything that will tinkle.

In the Lake Tanganyika district there are two rattles similar to the reed type of the BaKongo. The kayamba of the WaBemba, next to the Lake, is made of a smooth, square box,

which is composed of small sticks placed side by side. It contains grains of canna indica or dried maize. Used by women only, it is held in the two hands and rasped alternatingly with the thumbs, in cadence to accompanying songs. It may also be struck with the tips of the thumbs. The isaka of the Basonge is a sort of basket in which small pebbles are made to dance. Played by a child, it accompanies the tom-tom and the drums in evening dances. However, it is never heard during the dance of the new moon.

I. B. 1. d. - Pellet Bell (4)

The only pellet bell type rattle which I have found recorded is the lingwala of the region of the Nkundo and the surrounding tribes. It is forged from a piece of iron bent simply. A small ball rolls freely in the interior. By means of cords or lanniers the bell is attached to a handle, either single or double, but always short. It is found in the Bangwa tribe without a handle, having merely an ear of roots; or, on the other hand, one may find some specimens with two or three sonnettes on the same handle.

I. B. 2. a. - Strung rattles (1)

These are very common, and are used particularly by drummers and dancers. The BaKongo near the mouth of the Congo River use, in this respect, small capsules tied to the hands, into which small pieces of loosely folded tin have been in-

serted, so that the beat of the drum is accompanied by a rhythmic, metallic jingle. This same tribe also has, for dancers, two types of rattles made of nutshells strung on a thong. The one made of tiny shells usually has over a hundred , and that with larger nuts usually has only about twenty. The tribes of the Nkundo and surrounding peoples have two important types, the beyae and the beyoolo. The beyae is made of little half-fruits of lifambu or bosenge. They are strung to some pack threads, by dozens, more or less. A fairly large number of these threads are knotted to a leather thong, which is tied to the ankles of the dancer. There may be up to twenty double threads on a single thong. The beyae are used to mark the steps in certain dances (for example: the iyaya, dance of the possessed, bongoli, or yebola). The effect is like that of the lisanga (see Rattling vessels, Basket rattles), but fuller. The beyoolo rattle of the Nkundo is made of the fruits of the bonjoko creeper, and is similar to the beyae. Their tone is coarser than that of the beyae and resembles that of the elefo (see Clapper bells). These nuts, like walnuts, contain little fruit stones which, in knocking against the shell, produce the sound. A dozen of these nuts are attached to a packthread which is tied to the ankles. In addition to its general usage, which is similar to that of the beyae, witch doctors may rattle several to call attention to themselves while walking or to accompany their dances of casting spells

or working disenchantments.

The BaNgala, on the opposite banks of the Congo River, have a rattle, the mampala, made of dried seed pods, threaded together and tied to the ankle of the dancer. The BaKela to the west and the tribes of the cataracts region have similar types.

The WaRundi, next to Lake Tanganyika, use long fingers of goat's hair, wound around the leg, commencing just above the swell of the calf and reaching well-nigh to the ground. To these are appended small pieces of tin and other metals. These might be worn at all times, being used to attract attention to the wealth of the owner.

The BaLuba, southwest of the WaRundi, have a unique form, the bitolo, made of little iron bells forged in the form of walnuts split on the side. These little objects are fixed to a thong and attached to the legs and arms of the dancers.

I. B. 2. b. - Stick rattles

These are also common, but are rarely described, since most observers consider them to be of little importance.

The mgboko of the BaNgala, is a rattle tied on a spear and shaken in the dance.

The dyanga, of the BaHoloholo, on the southwest banks of Lake Tanganyika, is made of three fruit shells containing grains of cane, fixed on a stick. The whole is about 20 to 25 cm. long.

Plate 1

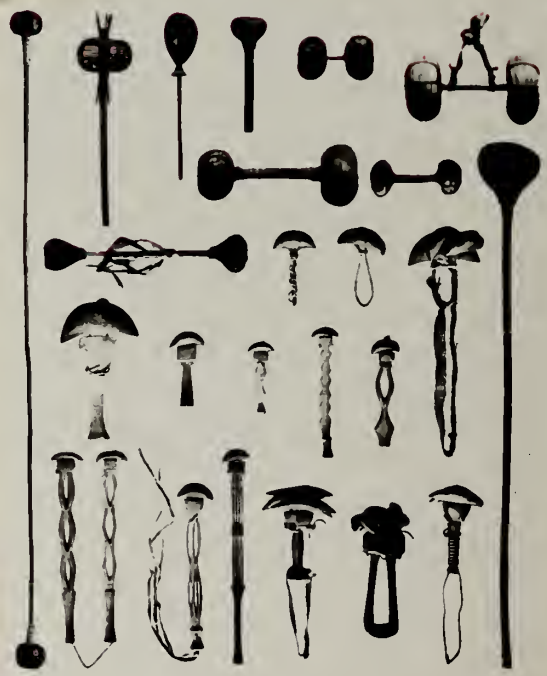


Plate 2

I. C. 1. a. - Natural bell (4)

The distribution of natural bells is difficult to determine. It is probable that they are common, occurring in conjunction with other idiophones made from hollowed shells and fruits.

The elefo, of the Nkundo and the surrounding tribes, is a sonnette made of the truncated shell of the fruit of the bolefo palm (Borassus). A stick is attached in the inside for a clapper. As this palm grows only near the Congo River, it is only in these parts and in the neighboring tribes that the elefo may be found, where it may carry the name of likoku. It is put around the necks of hunting dogs, in order to mark their location during a hunt for game.

Elefo bells may be found with two clappers. Also, to accustom young dogs to carrying the elefo, the natives put on an imitation made of a fruit of the bokalaka tree, or of a cut root. In the region of certain BaTswa, poorer people, this imitation takes the place of the elefo even for mature dogs.

The elefo is also used to mark the rhythm in certain dances (especially the iyaya). This is not customary, but does occur. In ancient times, the elefo was used regularly to secure the assistance of a man mighty in war. The one who invoked the assistance attached the elefo to a spear, and with his face smeared over as a sign of the devil, beat with the sonnette the roof of the man whom he addressed.

Often, in preference, he did the same on the roof of the secluded hut of a bolumbu wife (one who marked the high social position of her husband). Her spouse then became honor-bound to lend aid in the war.

The Mangbetu, Sudanese tribes, also have natural bells, which are not described further.

I. C. 1. b. - Wooden bell (4)

These are carved customarily from a hard, brittle type of wood (the "iron-wood" tree, etc.) and are supplied with one or more tongues which are suspended in the interior by knotted threads.

The bells of the BaKongo include a curious model shaped like a turtle:

It is made from a solid piece of wood from which the inside has been scooped out. There are three clappers, each in its own small compartment, kept apart by small sticks which have been inserted into the hollowed portion. The clappers are tied to a pliant creeper which, passing through several holes in the end furthest from the clappers, becomes a sort of handle, or swinging thread.

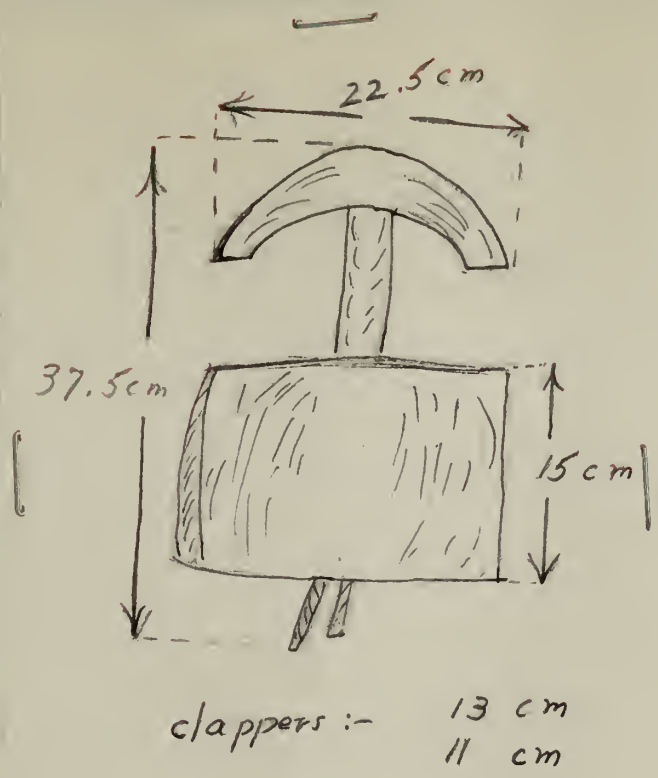
The elefo of the Nkundo (see under Clapper bells, Natural

bells) may be found in other forms in regions away from the Congo River. These are usually made from a hard, resonant wood (bosulu, bokuka, etc.). The usage is the same as in the fruit type.

The Mayumbe, a neighboring tribe, use small wooden (or sometimes iron) bells to announce the departure of a chief on a trip.

There are two types used near Lake Tanganyika which are worthy of mention. The notolo, of the BaPopoie, is a little wooden bell attached to the necks of hunting dogs, and is very similar to the elefo of the Nkundo. The nangbabi is approximately the same, differing in size. The singwe, of the WaSongola, is a small bell of wood suspended from the neck, to which the natives attribute the ability to drive out ghosts.

Bell observed in Peabody Museum: this bell, carved crudely out of a hard, reddish wood, gives a dull, cowbell-like tone, a sort of clunking, when shaken. Part of its lack of sonority may be that it has dried out since having been removed from the Congo area. The cord used for suspending the instrument also holds the clappers in place. However, it is properly manipulated by means of the large, curved handle which is carved from the same block of wood as that from which the main body of the bell has been hewn.



Wooden bell at Peabody Museum, Harvard.

I. C. 1. c. - Forged iron bell (5)

Forged bells are usually imitative of natural bells, as the natives try to reproduce in metal - a more sonorous material - the forms of fruits and nuts to which they are accustomed.

At the mouth of the Congo bells typical of this type may be found; they are made of iron, resembling in shape the shell of the borassus fruit.

Bells of the BaKongo, in the same approximate area, are often double when made of iron, are of varying sizes, and are usually well-ornamented.

The Nkundo and surrounding tribes have a small hand bell of iron, with a flat shape. Its length seldom surpasses 12 c.. The clapper (bolula, bojula) is attached to the top by an iron wire, which is secured across a little hole by a creeper or packthread. Neither round nor oval, it is in the form of an elongated stick, often cylindrical, almost as long as the bell itself. The bell is attached to the end of a spear, or carried at the waist, at the back of a sheath of a knife, or at the bokumbe (a sort of bag-valise carried on the shoulder and under the armpit). Its main use is to call attention to the passage of the wearer (a rich man, witch doctor, mother of twins). These sonnettes may be carried in more or less large

Plate 3

Plate 4

numbers. Sometimes they attach them to the waist of a young child who is so quich that there is no way of making him stay by his mother; the sonnette thus reveals where he is when he is lost. The generic name for this bell is ngonga, which name is often used for membrane drums in other areas. Special names among several of the tribes include:

when fixed to a spear:	bongonga
Booli (without spear):	bongonga
Bongando:	eoli
Nkundo (ensemble of sonnettes):	beyelele.

A bell similar to this, the gonga is used by the Wa-Songola, near Lake Tanganyika, being attached to the top of the arms, to attract attention to the owner.

I. C. 2. a. 1' - Tubular wooden bells (3)

These seem to be very rare. The nomalanga, of the Ba-Popoie, near Lake Tanganyika, is 30 - 40 cm. long, carved out of wood in the shape of a horn, and is struck with a stick.

I. C. 2. a. 2'. Slit-drums (3)

General remarks:

The slit-drum, or tom-tom, as it is known popularly, is distinguished from the drum because the latter is covered with a sonorous membrane, while the former is merely carved in a block of wood, of which the sidewalls

form the resonance box. In this case, the tom-tom is used most often as an instrument useful for the transmission of signals, whence the name tom-tom telephone or signalling tom-tom. Each blow of a mallet translates usually one word, each rolling trill a phrase, sent out according to a sort of secret language, of a telegraphic code, of which the combinations bear some remote similarities to the Morse alphabet.

In the north Congo, the Ababua, among others, can send abroad a relation of events which occur in their common existence. By means of tom-toms they communicate news and warnings, at considerable distances.

The making of such a tom-tom for signalling requires much exacting work. One must excavate a log of wood 40 - 50 cm. in diameter by 2 m. long. Aided with a very primitive cutting tool, or knife, the native is able to make of this tree trunk a smooth tube, of which the thickness of the lips is often not greater that 1 cm. Finished, the instrument has the appearance of a big-bellied animal running on paws (see type b", ornamented slit drums, of which this is an example). To complete the illusion, the sculptor may model roughly at one end an antelope head, for example, and at the other, the tail of an animal. Besides, in the Southwest, the region of the Kwongo, certain of these tom-toms reproduce a human figure, such as the bust of a young prince of the Ba-Yaka, indicating the royal character of this instrument. The large, carved tom-toms, decorated with the design of an animal

or a human body, constitute exclusively the property of the native chiefs. Only they or their representatives can use them in certain particular circumstances: in the course of feasts, important assemblages, preparation for war, etc. When the drummer makes it sound from the court of the chief, his principal function consists of transmitting the orders of his master to the people of the village and the nearby neighbors. Each village has a drummer for the tom-tom who, in his turn, repeats the message thus gained, to listeners who are, perhaps, several villages away. The beating of certain slit-drums of the BaKongo may be apprehended two days' march from the point of emission.

I. C. 2. a. 2'. a' - Simple slit-drums

This is the most popluar and common slit-drum in the Congo. It is fairly easily constructed, and is powerful in tone; in addition, it may be made in any size, so that one player or ten may beat at it with rubber-mounted sticks. It is used almost exclusively for signalling.

In the area around the mouth of the Congo River the names are fairly well stabilized. In the language of the BaKongo, the mondo is a type hollowed out of the trunk of a tree by an incision which is lengthwise like a long, narrow mouth. It is used in war, and beaten with a stick near the lips. The nkumbi is much like the mondo, having a notched rib near the mouth. A stick is moved rapidly along the

notches, which gives forth a rasping noise.

One type in this area is made from a segment of a hard redwood tree, about 2m. long and 60 cm. in diameter, the inside of which has been hollowed out by means of a small adze-shaped tool. One side, left thicker than the other, gives the means of producing two distinct tones. It is beaten with two sticks capped with balls of India-rubber.

The Mayumbe, on the very mouth of the river, have tom-toms ranging in sizes from 50 cm. to 3 or 4 meters. The larger models are also covered with a goat skin over wood of the kambala tree (a reddish brown, very hard wood, excellent for construction). The two lips give either a sonorous or shrill tone, and can be heard from 6 to 8 miles.

The lokole of the Nkundo is hollowed out of part of a tree trunk (especially - bosulu - Pterocarpus soyauxii Taub.). There is a vent above, of which the lips are unequally thick and are provided each with a short rectangular projection (called liele - literally, breasts) of different thicknesses, but with which the large nkole bosaka are not provided. These produce two tones: the thin side (boanga w'ome - masculine jaw) gives a higher tone than the thick side (boanga wa wali - feminine side). Here the lokole never has ears for suspension, (projectors to which carrying loops may be tied) as one may see in certain tribes of the Lomela (Ngombe). Often it lies on two transverse sticks of soft and light wood, or on some sort of an elevation.

To play it the natives use two beaters (basulu) of soft wood (usually parasol wood) with balls of India rubber on one end. The player holds it upright and inclined. It is used to assemble people, for dances, and for transmission of signals. It can be heard at several hours' travelling distance with considerable difference between those of different peoples in regard to the perfection of their systems. The Mbole, BaKutu, Ngombe of the Lomela know how to announce assemblages, deaths, and war. For them the lokole is not a telephone in the proper sense, since its use is restricted. By contrast, all the true Mkundo - Mongo groups by organization and culture (this includes the Edonda, Bosaka, Boyela, Bongando) possess a complete code which allows them to express a large variety of thoughts. The code is not at all complete - they cannot give any numbers; but this is because they do not feel any need for it. But they can express all matters of practical needs and uses. The code varies with regions. Thus the Elanga use many other phrases than do the Mkundo. It is not a question of other phrases than have been adopted to express such and such an idea. These two groups can hardly understand each other on the lokole, while there is no difficulty by the spoken language.

Various specialized names for the lokole include:

Bankanda:	bongungu
Mkundo:	bongungu (large)
	bongonga (medium)

ingolongolo (small): this is the bongoo of the Injolo.

The Nkundo also have a smaller imitation of the lokole, which is found throughout this region under the form of two pieces of soft wood (parasol, bontone, bonsange) placed transversely, or two pieces of banana tree trunk, with or without subjacent holes. They are used principally by children to teach them the art of beating the lokole. But if necessary they can be used to assemble the people from short distances. Names for this instrument include:

Nkundo; Boyela:	ionga
Bosaka:	bengonge
Bongando:	ionga, toonga
Mbole, BaKutu, Ngombe:	bolemba
BaNkanda:	ikombee (diminutive of lokombee)

The Bakele, slightly to the east of the Nkundo, use a large tree trunk 1.50 cm. long, with a diameter between 30 cm. and 1 meter. The latter are rare, but those from 60 - 70 cm. are numerous. It is excavated through an opening of from .07 to .08 m. wide and 1.30 cm. long. In the interior, not at the middle, there is an edge that is designed to give the instrument two sounds.

The whole is struck by means of two large mallets of soft wood. These slit-drums are provided with handles in the wood. There may be three or four to the village, of which the chief's is the largest.

The BaNgala, on the other side of the Congo River from the Nkundo, also have a drum called the lokole, which is used for dancing and signalling. The mokoto is like the lokole, but with handles at the sides and a foot rest. Also it is made of soft wood.

Near the shores of Lake Tanganyika two interesting specimens of this instrument may be found. The BaPopoie have the mungungu, a giant slit-drum which is used for corresponding at distances. It is from 1.50 to 2 meters long, and lies on two insulating logs, which protect it from the ground. The kyondo of the BaLuba is the drum of witch-doctors. It is a cylinder of hard wood, 50 by 25 cm.

I. C. 2. a. 2' b' - Ornamented slit-drums

A good general description of carved, or ornamented slit-drums has been given already under general remarks. The most common type is that of a very simple figure, with a half cylinder as the body, and short, blunt projections at either end for tail and head, with pointed legs. Actual carving, other than the tracing of geometrical designs of a crude character on the planes of the sounding body, is relatively rare, and almost always confined to drums belonging

to royalty. Sometimes the head or tail is merely an elaboration of handles with which the drum may be provided.

The Mangbetu, a Sudanese tribe, have carved drums which are mounted on pedestals.

I. C. 2. a. 2'. c' - Trapezoidal slit-drums

This type represents a relatively high stage of development in the slit-drum. Only a few localized centers seem to have it.

The Nkundo group of tribes has two types. The bokuka is made from bofeko - Ricinodendron africanus - or any soft species. It is larger than the lokole (see simple slit-drums), and is made in the form of a parallelogram, of which the base, or largest side, forms the top. Here is the ventor opening, which takes up almost all the length and is never flanked with projections, but is enlarged progressively toward the middle. The sides are gently rounded. The largest diameter of the box is in the middle; it becomes less toward the top and the base, and is smallest at the ends of the top. At one of the two extremities of the top, sometimes on all the faces, is an ear of wood, with a lannier or cord, which, passing over the shoulder and under the armpit, allows one to hold up the bokuka and to have it rest on the ground by one of its faces, the other being suspended. It measures approximately 1 - 1.50 meters long by 50 - 70 cm. high. The player, stationed in front of the drum, beats it with two sticks tipped with India-rubber. It is used

for dances, but is becoming more and more rare, because the dances with which it is associated are dying out. Several names for it are:

Nkundo:	bokuka
Mbole:	bonkuka
BaKutu and Ngombe:	bonkuka and lokombee

The lokombele is like the bokuka, but it is narrower, lighter, and more elegant. Its sides swell very little; its faces, rather than being rounded, are slightly concave. The resonance box carries, near the vent, several splinters of palm stalks, or several light fruits, glued to the edges by means of elaka resin. The species of wood is lighter than that for the bokuka; it is usually from the bontole (Cleistopholis patens), which is clearer in color than the wood of the bokuka. Mallets are also of India rubber. The usage, however, is different. The lokombele is used to glorify and rejoice upon the fortunes of rich and influential men, who pay the players. It is also heard at great festivals, sacrifices offered to the ghosts, and in proceedings of sorcerers. The Bongando also play it at dances. It is found among the following tribes:

Ngombe

Lokalo

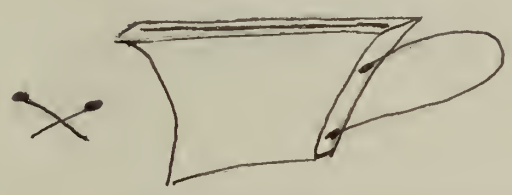
Boyela

Bongando

Bosaka

Lotoko (lokombee)

The BaKela, east of the Nkundo, use a tom-tom that is 70 cm. high, in the form of a trapezohedron, of which the two bases are rectangular and their breadth inversely proportional to the base of the large trapezium. It is carved out through an opening which is usually 2 cm. wide, along the whole length of the long base:



The thicknesses of the two large sides are not equal, which means that four different tones may be produced. It is carried by a cord, shown above. The nkumvi , or mulimba of the BaLuba is similar. The BaHoloholo mulimba is made of sycamore wood, tinted with red kakula. The height:- 50 - 90 cm. Dimensions of the base:- 20 - 25 cm by 60 - 70 cm.; dimensions of top:- 3 - 4 cm. by 40 - 50 cm. If it splits, it is repaired with iron hooks and resin. The mallets are called musimpo.

The modimba of the BaSonge is 3 by 25 by 50 - 80 cm. It is held on the thigh by a strap (usually of zebra skin) which passes over the left shoulder. The BaSonge are noted as excellent tom-tom makers.

In the drums of the WaSongola, one must distinguish between the ordinary lokombe, which is used to correspond at a

distance, and the large lokombe of nsubi (fetish). The ordinary lokombe is made of a single flat peice of wood with the interior scooped out. It is held with a strap over the shoulder and struck with a single mallet of India-ribber. The large lokole of nsabi is the same, but larger. It is struck with two mallets of India-rubber, and is rarely suspended from the shoulder, but rests on the ground. It is always accompanied by one or two ordinary lokombe which are struck in this instance by two mallets.

I. C. 2. a. 2' d' - Multitoned slit-drums

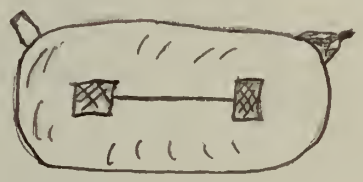
This type of slit-drum is so constructed that each side is divided into two unequal sections which have different thicknesses. Often there is a bridge which serves to separate the divisions and upon which the player may beat his mallets.

The nkumbo is similar to the trapezoidal types, but has a short bridge in approximately the middle. The player beats on either side of this bridge, thus producing four tones. The nkole-nkole of the BaYanzi (on the lower Kasai) and the BaNgala is of the same construction; this is somewhat surprising, because the BaNgala are situated a considerable distance north of either of the other two tribes (consult maps in the appendix).

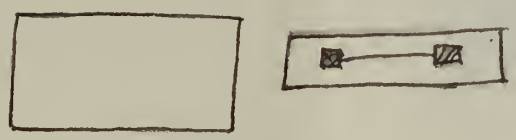
The BaHoloholo and Balovale people (Southwest Congo basin, near the Zambezi), which also are not contiguous groups, have a drum of somewhat similar construction. Each is pierced

with two openings, connected by a straight, narrow groove. The kiondo of the BaHoloholo is barrel-shaped, a fragment of the mulela tree, and has two handles for carrying. Its dimensions are: diameter - 20 to 25 cm., length - 40 to 50 cm.

Kiondo:



The instrument of the BaLovale people is made of a solid, rectangular block, and has square cuts on the top:



The lunkunvu of the BaLuba is the same as the nkumbo of the BaKongo and nkole-nkole of the BaYanzi and BaNgali.

Plate 5

Plate 6

I. C. 2. b. - Welded iron bell (A) (5)

This type has not been recorded frequently, and does not seem to be very common. The Boyela tribe, in the central Congo basin, call theirs the elonja, and forge it in iron, attaching a handle of thin, light wood. They are usually 30 to 40cm. long, but may be very tiny. They are used customarily in time of war as a signal or stimulant, or at great festivals, especially the drinking bouts of influential men. This bell has spread to the surrounding tribes to a small degree.

The Mamalanga, of the BaPopoie, is a large iron bell in the form of a horn, 30 to 40 cm. long. It is mounted on a handle of wood. An imitation is sometimes made of wood.

The mbegele of the WaRundi is a little bell in iron, made of a single strip, the bent edges of which are welded together.

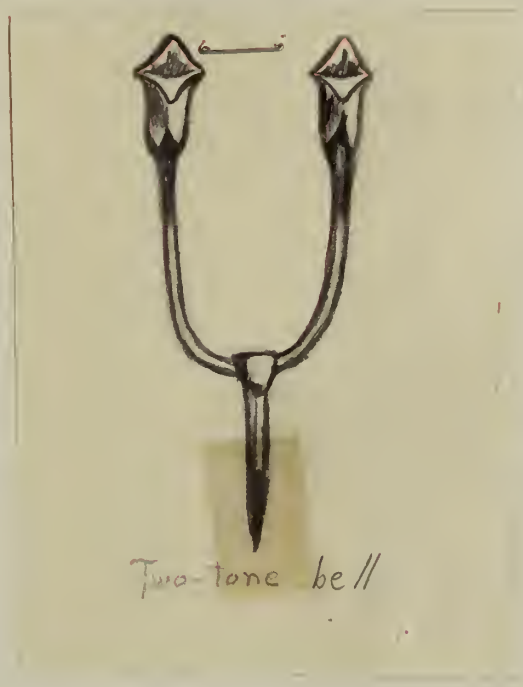
I. C. 2. c. - Double metal bell

The double bell is usually made of thin strips of iron shaped, when flat, like the outline of our Christmas bells:

These are first welded together, and then are attached in pairs by means of a wooden handle. Sometimes each flat section is made double, the handle then being a part of the metal of which the whole is constructed. They are struck alternatingly with a beater of soft wood.

These are relatively rare. Near the mouth of the Congo River, large double bells are beaten to announce the death of chiefs. The lubembo of the BaSonge is made of two bells of beaten iron from 20 to 25 cm. high, fixed together by a handle. The player takes the handle in his left hand and beats the two bells alternatingly with a stick of iron. The lubembo is part of the orchestra of tom-toms which accompanies the chief in a dance. It is not played in other circumstances.

The two-tined bell, given on the next page, is a unique specimen from the BaYaka country. It has been observed during ceremonies after the killing of a leopard. The performer tries to collect enough money to pay for the leopard, and as she collects coins, she puts them in the hollow ends and rattles them from time to time. At other times she strikes the bell with another piece of iron.



Two-tone bell

I. D. - Scraped idiophones (1)

This is a very common type of instrument, since it is easy to make and to play. Indeed, the effect may be obtained by merely rubbing two coarse sticks together. This is done frequently in the Congo.

In the region of the Mkundo, the bokwese is made of a piece of the stalk of a raffia palm, 70 cm. to 1 meter, or perhaps more, in length. With the exception of the extremities, it has been hollowed out through a vent which takes up the whole length of the excavation. At one side of this vent the bokwese has some fine notches, on which the player rubs a baton of hard wood. This scraping does not produce exactly an agreeable tone, but one which is good for the purpose of marking the rhythm in dances of the types iyaya and botenya. It is in very common usage, since the dances of which it is an integral part are in great vogue. The Bokala call it bokosa (kosa - to scrape, to rub).

The Ikoko have a notched scraper made of bamboo, with a narrow slit cut lengthwise along the crest. A stick is rasped across notches in this slit. It is used for accompanying dances.

The scraped idiophone of the BaBunda is made from the stem of a palm leaf, hollowed, the edge of which has been cut out so as to resemble the teeth of a saw. Over this a broom of rigid rushes is rubbed.

I. E. 1. a. - Sansa - Bamboo lamellae fixed on a board resonator

This form, though the simplest, and thus the most primitive, is dying out in the Congo. It is constructed of a rectangle of soft wood, usually about 15 - 20 cm. by 10 - 15 cm., upon which are mounted a number of bamboo lamellae. These are attached on one end, either by cords or by a stick which passes over them, and are held away from the top surface of the board by a wooden bridge which is bent in the shape of a "U", the points of which terminate on a line parallel with the stationary ends of the lamellae. They are played customarily with the thumbs, being plucked upwards, away from the board, by the thumbnails, which are allowed to grow long for this purpose. They are held in the palms of both hands, thus leaving the thumbs free.

The generic name for the sansa in the Congo is the biti; there are several variants of this: mbiti, likembe, etc. The tshisangi, or likembe of the eastern Congo may have from six to twenty lamellae; the board is decorated sometimes with geometric designs, and is often surmounted by a figurine representing the ancestor or mother of the clan. A calabash may be placed under this to provide added resonance.

The Ababua, a Sudanese tribe, have the sengbuelembué, which is made of a small board of Ngombo wood, which is very light and is employed preferably because it is a good con-

ductor of sound and can be worked easily. The sonorous comb of blades of cane are attached with a creeper. This instrument is used by men only.

The kizanzi, of the BaLuba, is a rectangle of hard wood, scooped out underneath, measuring 20 - 25 cm. by 15 cm., with 6 - 7 cm. thickness, on which are fixed by a wand blades of wood (sometimes iron). It is held before the breast with the thumbs free to resonate the blades, while the player sings an air. A bowl may be added as a resonance box.

This and other types of biti are probably the most popular kinds of instruments in the Congo. They are small and light, and may be carried easily - for example, they may be found attached to bits of clothing, or as a part of any load which a native might be carrying, or, more conveniently yet, in the hair of the owner. Moreover, it requires no skill to play them; they are so arranged - with the notes in staggered order (see the notation of specimens investigated in the Peabody Museum, under Sansas with Iron lamellae, and board resonator) - that it is a simple matter to use them as a background for a song. This, by the way, is their most common usage, as accompaniment to singing. The tones produced are very light, and cannot be heard at any distance; this limits their utility, and means that they cannot be employed as instruments of percussion or rhythm in the dances. However, even though only slips of bamboo or cane are used for the lamellae, they are often carefully tuned according to systems

which, if not exactly the same as the European, yet bear striking similarities to it.

I. E. 1. b. - Sansa - bamboo lamellae fixed on a box resonator

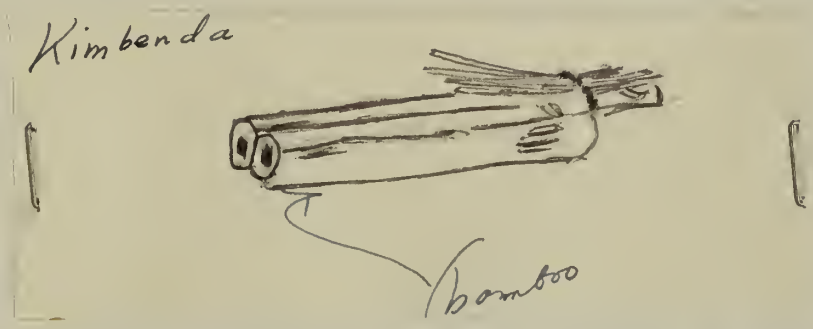
Two types of box sansas with bamboo lamellae may be found. The first is very much like the board model; here, however, the piece of wood upon which the lamellae have been mounted is of sufficient thickness that it may be hollowed out, sometimes in the form of a sledge, but more frequently like a long box, with a projecting lip over one end, which is not sealed. Several such boxes may be joined, with layers of sledge boards on top of each other, the bottom being sealed with a flat board. The other types of box sansa is made from hollow sections of bamboo with a lip at one end, upon which the blades are mounted.

The BaKongo use a sansa with twelve keys of reed, mounted on a box of three joined sledge sections:

The <u>kizanzi</u> of the BaLuba has been mentioned already under board sansas. However, as was explained above, boards are sometimes used which are thick enough so that they may be hollowed out, thus becoming boxes. The <u>kizanzi</u> with one

box is the kizanzi kya masuba; that with two boxes, the kizanzi kya nonda. The latter model is very popular.

The kimbenda, of the BaMbala, is constructed of two bamboo segments, with bamboo keys. It is held sometimes to the ear while being played, in "order to hear more of it".



Occasionally these box types are provided with a swell in the back in the form of a little door which may be manipulated by the slight pressure of the fingers.

I. E. 2. a. - Sansa - iron lamellae with board resonator

This, again, is a more primitive form of the general type of sansa. Oddly enough, its distribution seems to be somewhat restricted, with clusterings around the mouth of the Congo River, southeastward from a diagonal line drawn approximately from the region of the BaNgala southwest, skirting the territory of the BaLuba, who apparently do not use it. Its construction is customarily the same as that of the board type with bamboo or reed lamellae, except, of course, that it has iron lamellae.

The sansa of the Mayumbe, near the mouth of the Congo, may be carved, either sculptured or adorned with linear patterns which are in the form of a cow or horse.

Those of the BaKongo are rectangular, having usually 21, 18, 11, or 7 keys. This is known as the biti, mbiti, or mbichi, and is played with the thumbnails. (Metal-tongued sansas are played sometimes with the fleshy tips of the thumbs, not necessarily the nails). The BaNgala biti seems to be an importation from other regions.

In the region of the cataracts the sambi or ndimba is customarily tuned by thirds, fourths, fifths, sixths, and octaves above the lowest pitch.

The sansa of the BaTshioko is given the French name, sanza, and has thirteen keys set on a board which is approximately 15 by 28 cm. There are seven large, and six small lamellae placed alternatingly so that the outer edge of the row of keys is bounded by a large one. The attached ends are not set flush with the edge of the box, as is usually the case, but are set in four or five cm.

I. E. 2. b. - Sansa - Iron lamellae with bamboo-raft resonator

These seem to appear in the same areas as did the board type with iron lamellae - in the southwestern section of the Congo River. Bamboo sansas with iron lamellae are even more rare than the board types.

The BaBbala use a kimbenda (see under Sansas - bamboo lamellae, and box resonator) which is a little larger than the bamboo lamellae type, and here is fitted out with iron tongues. Often a native will sing softly to himself while playing on one of these instruments, which, other than the drum, are the only one which these people possess.

The BaKwese of about the same areas (between the Kasai and the lower Congo) are famous as makers of the kimbanda (note the similarity to the name, kimbenda), of which a number are sold outside of their tribal group.

I. E. 2. c. - Sansa - Iron lamellae with box resonator

This model is probably the most common one in the Congo. It exists in two clearly differentiated types, the rectangular and the semi-spherical, the former being the more popular.

Rectangular:

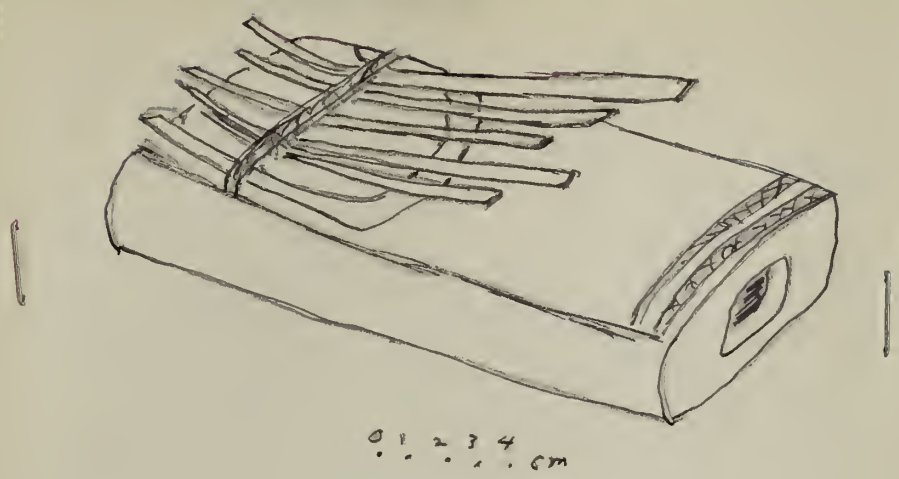
The isanga, which is found near the mouth of the Congo, is made of an oblong box of varying sizes, approximately, on the average: 15 by 12 by 5 cm. The upper side is slightly rounded and has a small, round sound-hole to the left of the center; the lower surface has a larger hole. To the upper side are fastened ten strips of hammered iron .5 cm. wide and ranging in length between 12 and 9 cm. A large number of these strips are passed under a narrow iron bar and over

Plate 7

a slender iron bridge, with a space of two cm. between the bar and bridge. Each lamella has a large bead of blue glass threaded onto it in back of the bridge; not only is this an ornament, but it also produces a rattling, jarring effect when the isanja is played. The system of tuning varies with the different districts. The volume of sound may be governed by means of a swell hole at the back, which is covered with the forefinger.

The Gombe tribe of the BaKongo punch one hole in the end furthest away from the lamellae, of which there are seven. The sound box measures 22 by 14 by 8 cm. Other BaKongo types are often highly decorated, especially with small metallic studs which look something like upholstery tacks. The lamellae, which are curved in arc form away from the board, are held in place by a wooden bar, behind the bridge, instead of the usual metal one. This is known as the sanza, or portable piano. There are nine keys.

The kimbanda, which may have keys of brass, iron, or copper, is constructed of a hollow rectangular box which has been cut from a solid block.



Kimbanda of Bahuana

"Biti" –
Steel bars on wooden resonator; played with thumbs.
Various sizes and tunings
Biti of BaKongo

Semi-spherical:

That of the BaKongo is an oval board, upon which the lamellae are set, which is laid into the top of a vessel which is shaped like a bowl, and measures 22 by 18 cm. The nine metal lamellae are shaped like an elongated teardrop, one side of which is flat:

That of the Ababua is of similar construction, and has five blades.

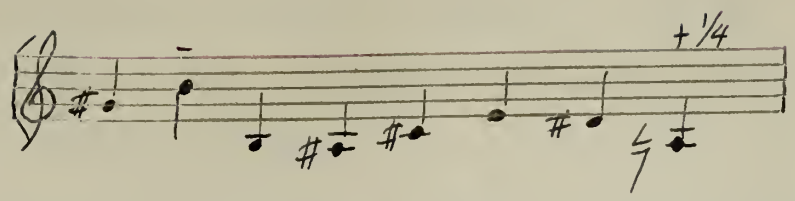
The Mayombe, near the mouth of the Congo, have a sansa which is made of a resonance box cut in a half sphere of wood (willow), ending in a point, carrying on its straight edge the iron lamellae.

Specimens observed at Peabody Museum, Harvard

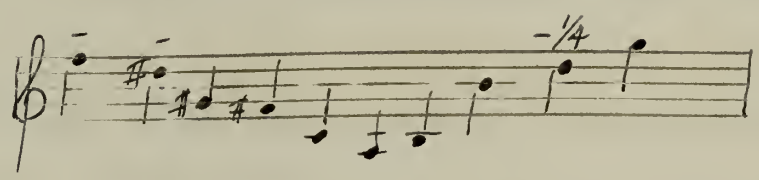
1. The largest of the three: 27 by 10 & 11.5 by 3 cm. (this is not rectangular, but is tapered toward one end). It is constructed from a hollowed section of a block of very soft, white wood. There are eight lamellae; there is a glass bead on the first and seventh, and metal weights on numbers three, four, five, six, and eight. It is played from above, with a downward stroke - or, at least, so it appears, because the upper sides of the ends of the blades are smooth and shiny, as if rubbed a great deal, whereas the under sides are dull. The ends of the blades lift only 1.5 cm. from the surface of the box; further evidence that it would be difficult to play it with the thumbnails. It is evident that the overall length of the lamellae is not proportional to the length of the vibrating portion. This is born out by the following diagram:

	Length of l.	Vibrating length of l.	tone
1.	11.5 cm.	7	G # 3
2.	11 "	7.5	B 3 -
3.	11 "	9	B 2
4.	13 "	9.5	B flat 2
5.	12 "	8.5	C # 3
6.	10.5 "	8	E 3
7.	11 "	7.5	E flat 3
8.	13.5 "	9.5	A 2 + 1/4

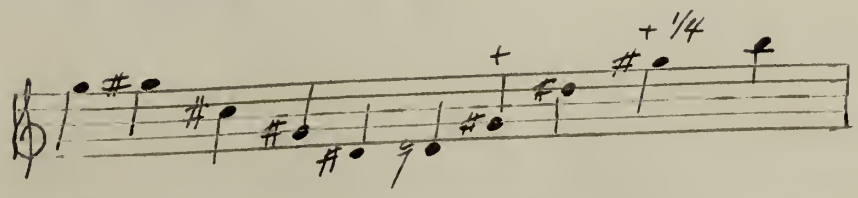
Surprisingly enough, the vibrating lengths themselves were not proportional to the tones emitted (differences in pitch are due, apparently, to the weight of the vibrating length) (see above) :



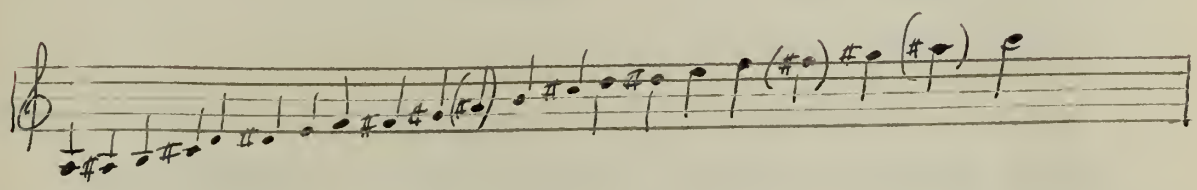
2. Next largest in size, of soft white wood, 18.5 by 11 by 4.5 cm. There is one blue bead on the first blade; there is a small door, or swell in the side, covered with shiny tacks. The whole has been cut from a solid block of wood. The lamellae, which lift two cm. off the box, are played with the nails from underneath. Again, there is no correlation either between the length of the total lamellae and the vibrating portion, or between the vibrating portion and the relative tonal pitch. There are ten lamellae:



3. The smallest sansa, it is plainer than the others, with no distinguishing features. It measures 18.5 by 9.5 by 4 cm. The lamellae lift approximately 3 cm. off the sounding surface, and are played by the thumbnails, from underneath. There are ten blades:



It may be seen upon close observation that these systems appear to be centered around b (either 2 or 3) as a focal point. According to the arrangement of sharps, the following common scale might be derived:



This is approximately a diatonic scale. In fact, in a letter from Miss Annis Ford, dated March 2, 1949, she says, in corroboration of this point, that a native preacher had two sansas: "Whether by chance or intention, I do not know, but the small one was definitely treble, and in the key of G - I played my accordion with it. The larger one was about 20" long, with the steel bars proportionately long, and bass. It was in C...".

There seems to be little relation between the scale as evidenced here and the intervallic structure seen in the xylophones of the Peabody Museum. However, as was mentioned before, the pitches of the latter xylophones might now be faulty, since they have dried out considerably after having been in this relatively dry climate for some years.

I. E. 2. d. Sansa - iron lamellae with gourd resonator.

All the specimens of this type seem, according to writings which I have investigated, to be grouped in the eastern section of the Congo, in those areas where the bamboo raft models were not to be found. The gourd resonator is almost always made from a portion of a calabash.

The kinanda, of the Ubudjwa, on the affluents of the Luama River, has springy iron keys mounted on a board, which is attached to a gourd. (Kinanda is a generic term in this section, meaning musical instrument).

The kansambi, or the WaBemba (next to Lake Tanganyika), is properly a Warega instrument, and is similar to the kinanda.

The kisachi, of the BaSonge, is made from a half calabash topped by a board upon which are mounted eleven lamellae.

The gourd sansa of the BaLunda is 30 by 11 cm. Eleven keys are attached to a board which is much larger than the top of the gourd upon which it rests:

There are three small holes located approximately at the point of attachment of the stationary ends of the lamellae. The board is highly ornamented with designs which are either crudely geometrical or imitative of animals:

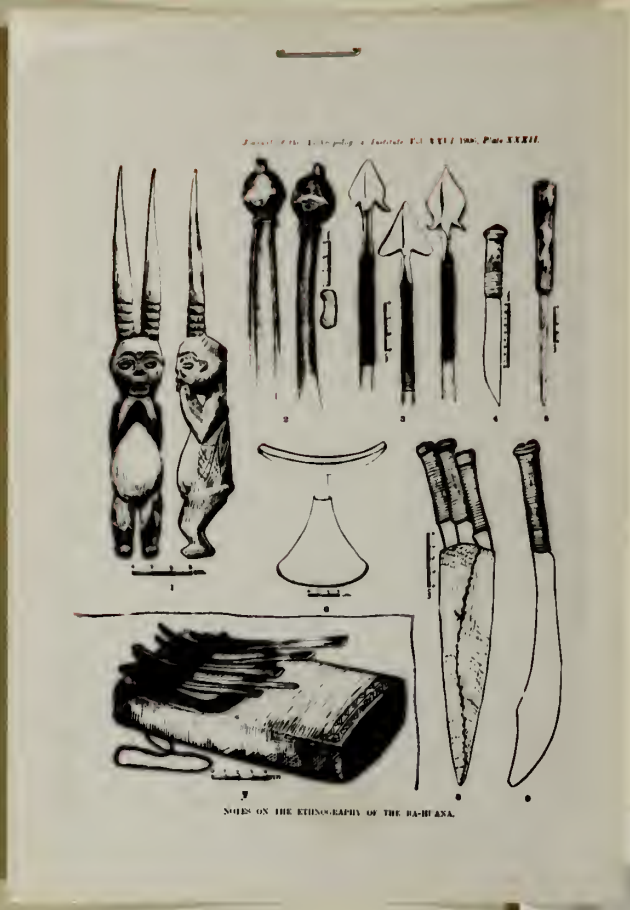


Plate 8

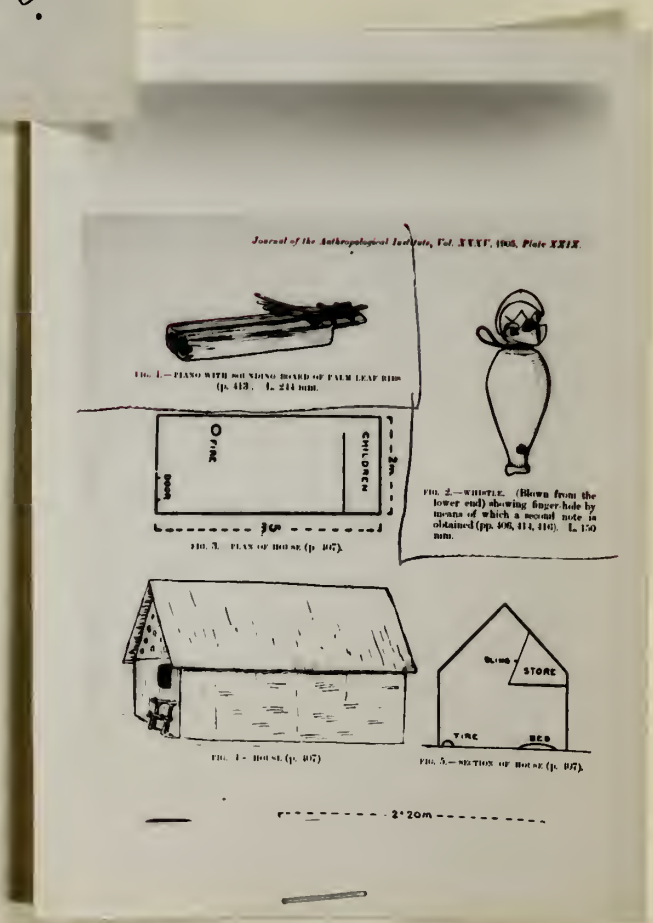
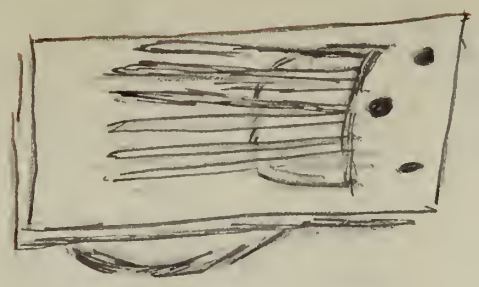


Plate 9

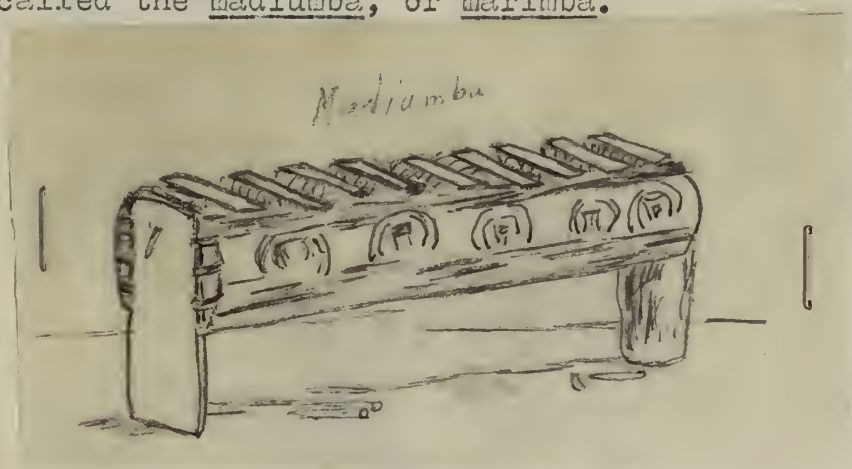


I. F. 1. - Percussion beam (1)

This is found on the Lower Congo estuary, and is apparently made from the "iron-wood" tree, a very hard, resilient wood, a stick of which is held up horizontally by two loops of creepers tied to sticks stuck in the ground.

I. F. 2. a. 1' - Sledge xylophone (A)

Found mostly in the eastern section of the Congo, it is often called the madiumba, or marimba.



Madiumba

It may have as many as eleven slabs, and is usually played with sticks mounted with heads of India-rubber. The BaSonge

Sansas:
Bamboo Lamellae:
Board resonator: ×

Box resonator: o

Sansas:
Iron lamellae:
Board resonator: ×

Bamboo-raft resonator: ◆

Box resonator: o

Gourd resonator: ⁘

marimba, with eleven blades, is made with three transverse bars of wood, one central bar under which the blades pass, and the two others supporting the ends. The blades are 25 cm. long, 13 cm. wide, and 2 cm. thick. Others are larger, having thirteen blades; 27 cm long, 20 cm. wide, and 2 - 3 cm. thick. This is similar to the sledge xylophones of the BaKuba and Ababua, which are made of simple frameworks. However, that of the Anzande, of the northeast Congo, is probably more typical of the general sledge type in the interior regions. Here there are eight keys resting on two parallel logs, played by four people, each wielding two sticks.

I. F. 2. a. 2' - Tray xylophone (A)

This is similar to the above, in particular that of the Anzande, but is constructed more simply, the base being a large log scooped out like a tray. The slabs are then laid across the hollowed portion. This is found mostly in the interior regions, northwest of Lake Tanganyika, and is relatively rare elsewhere.

I. F. 2. b. 1' - Table xylophone (A)

This is the least common of the gourd type. Its general construction is like that of the bail xylophone, except that it usually stands on legs, or is constructed like the madiumba (see Sledge xylophone), but with calabash resonators attached

under the framework.

I. F. 2. b. 2' - Bail xylophone (A)

This is the most common type of xylophone in the Congo. The madimba of the BaKuba is representative of the general type. It is made of a strong stalk of rattan, about 1.60 m. long, bent in the shape of a half rectangle with rounded corners. Two sections of a large leaf stalk of bamboo are attached transversely by means of a thong of rattan on the lateral boughs of the stalk of rattan. Two lathes of reddish wood (takuba), placed perpendicularly above the leaf stalks, are bound to the boughs of the rattan stalks by means of a network of thongs of rattan. Two long wands of a reddish brown wood, 17 cm. apart, paralled to the two sections of the leaf stalk, from the one end of the xylophone to the other, are attached on both sides in this network. The upper surface of the leaf stalks is covered completely by a protecting cushion made of a tuft of twisted banana-tree fibres, caught in a sheath of antelope horn. Thirteen wands, from forty to forty-five cm. long, placed about twelve cm. apart, are bound to the upper surface of the leaf stalks and the protecting cushion, and are spitted at two cm. from the edge of the side-wall of a section of an elongated calabash and attached solidly between the separating pad and the second leaf stalk. These calabashes are provided with a little circular opening of about

one and a half cm. diameter at the end. The latter is closed by a diaphragm made from the pellicle of an opened cuccoon or spider's web. This diaphragm, which is merely attached to the opening with no ornamentation, is held to the exterior wall of the calabash with the sticky resin of the Bulungu tree. A blade of very hard wood of a type having a deep brown color is placed over each calabash; this sonorous blade is in the shape of a long rectangle, slightly enlarged towards the middle and thinned at the same point underneath. The upper surface is decorated with several engraved patterns, which are only simple lines traced very irregularly. A fine thong of twisted raffia fibres, piassaba, or antelope hide, passes through two little holes pierced at one of the extremities of each sonorous blade and is fixed at the other end around the wand which spits the calabash which is serving as resonator for that blade. The other extremity of the latter is held in place by some switches of bamboo spaced at about six to nine cm. These bamboo wands serve at the same time to attach the insulating pad to the bamboo leaf stalk forming a bridge, and to hold in place a large splinter of bamboo surmounted by a sheath of finer splinters, held parallel to the insulating pad over the sonorous blades. A similar ligature binds the second pad to the corresponding leaf stalk, and prevents any sliding of the sounding blades. The ends of these cords are put through a rectangular eyehole made in the insulating pad on the lower surface and the

framing of splinters of rattan on the three other sides. The resonance boxes are as mentioned above, all of a lengthened form; two of them are made of two calabashes, encased the one in the other and bound by a fibre of piassaba; this joining is further cemented by a gluing of bulungu resin. A third resonance box is made of three calabashes attached to each other by a splicing of piassaba fibres covered with bulungu resin. A long thong two cm. thick, made of twisted raphia fibres, is tied to the two extremities of the large rattan stalk.

Each of these elements has its reason for being. The latter thong is useful for carrying and is passed around the neck of the player. The rattan stalk forms the frame of the instrument and helps to hold it horizontally, or very slightly inclined, at the desired distance from the body of the player.

The petioles of raphia form a support; the pad of fibres and the antelope horn serve as protecting cushions; the sonorous blades held in place by the special method described above conserve the maximum of the sonority in them; the calabashes which swing quite freely cannot, however, be shifted; the artificial elongation augments the efficacy of their functioning; the membrane produces a humming like a bee.

To play this xylophone the native uses two mallets of hard and resilient wood, tipped with balls of India-rubber mixed with bulungu resin. Compared with the other specimens

in the Museum of the Belgian Congo, at Tervueren, however, this xylophone is distinguished by:

1. The absence of conical sound boxes;

2. The special construction of certain types of resonating boxes (such as those of several, joined calabashes);

3. The complicated method of attaching the calabashes to the sonorous blades; and

4. The special construction of the insulating pad.

This may be considered the most nearly perfected of the xylophones actually known, and represents the latest stage of the evolution and development of these instruments in the Congo region. Many tribes have similar ones, although few even approach the detailed construction.

Those of the Azande, of the northeast, have ten blades, all of the same size (this seems to be the general rule), with four sticks for beaters. That of the BaHoloholo (near Lake Tanganyika) is the same, but with spider's webs in the calabashes for nasalizing membranes (it is called a malimba). Larger models include two of the BaKongo, the first with twelve blades - here the largest resonance gourds are in the middle, tapering off towards the extremities, and are held together by reeds. The second has seventeen calabashes.

This instrument is very widespread. It may be encountered in such tribes as the Mandingo (here called the balenje), the Batshioko of the Kwango River (Southwest Congo - an eight keyed instrument), the BaPinji, the BaLuba (called lilimba),

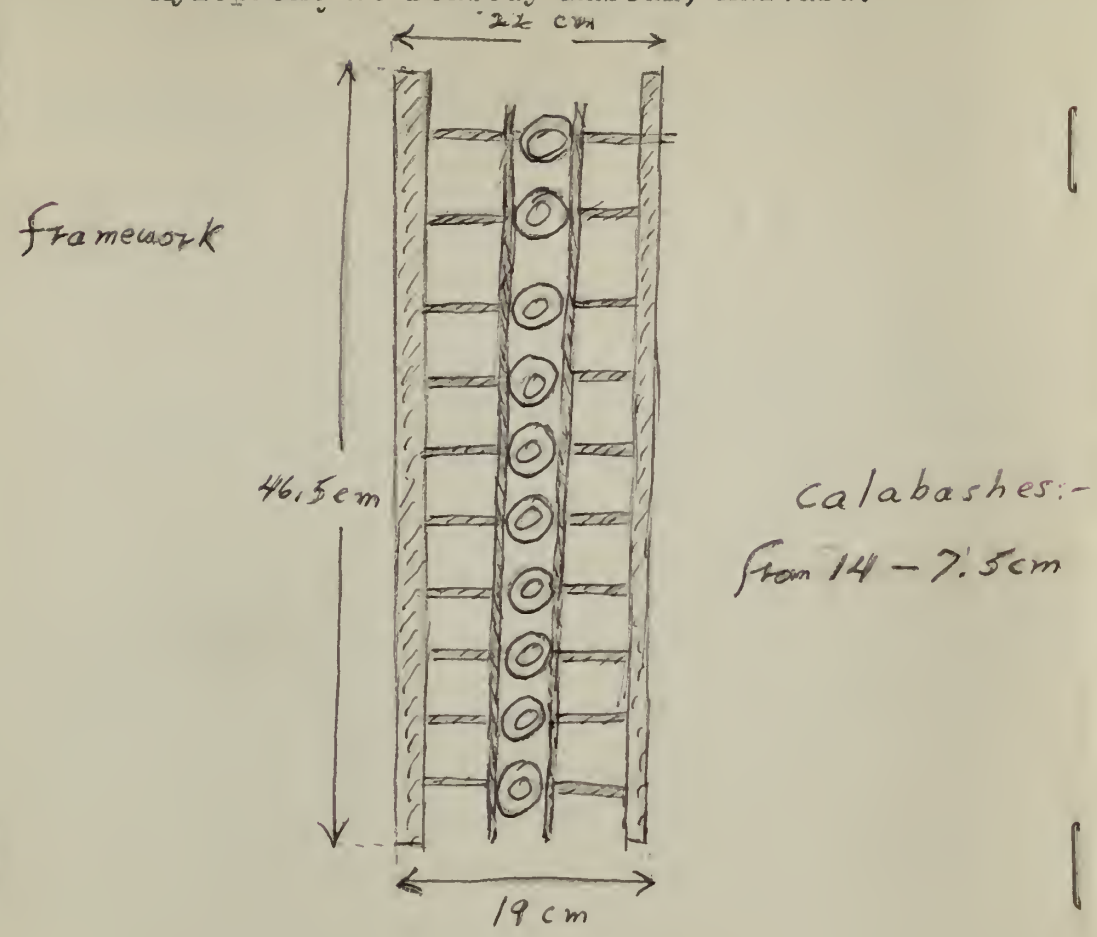
(plural malimba, it is simply constructed with a bare framework; the blades are 15 - 30 cm. by 4 - 6 cm., thus varying in size. These may be played in pairs, the one more sombre than the other; in this case the first is the lilimba lva kubamba, and the second lilimba lya ntembo.). Near the mountain range of the Bambarri, the marimba has two rows of gourds, with one blade for each pair. Several sizes of sticks are used for beaters, the players dexterously changing one for the other as a more brilliant, or duller sound is desired. The xylophones of the BaNgala, of the northern Congo, may be constructed as above, with resonators for each blade, or may have one very large calabash for a number of adjacent blades.

The xylophone is often played only by chiefs, and is thus an instrument of royalty, or perhaps of wealthy men. In orchestras it is always played by the leader, since, other than the drum, it is the most powerful percussion instrument, and because it is usually the standard instrument for pitch, to which the other instruments of the particular orchestra are tunes.

The Peabody Museum at Harvard contains two bail xylophones worthy of examination. A diagram of the better of the two is given on the following page. It is simple in construction, with eleven blades of slightly differing sizes: extreme left (lowest note) 39 by 6.5 cm., middle (no. 7) 38 by 6 cm., and extreme right (highest note) 35.5 by 6 cm. Each has the same general shape; there seems to be little co-

relation between the sizes and shapes of the blades and the notes produced. Apparently each individual blade must be tuned according to its own acoustical characteristics. Many of the blades give off two clearly distinguishable notes, which, since the higher is fainter and is distorted beyond identification in the upper part of the keyboard, I have designated in the diagram as the overtones and fundamental tones. Small sticks pierce through the calabashes to hold them to the sides of the framework; long sticks running parallel to the sides act as stabilizers to hold the calabashes in place. The resonators themselves are from 7.5 to 14 cm. long, and are more conical than elongated. Pitches of the sounding blades were ascertained by means of an audio-frequency oscillator.

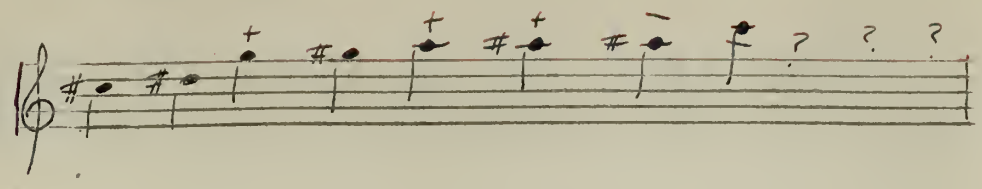
Xylophone at Peabody Museum, Harvard.



Pitch of the blades: (reading from top to bottom, or from the large to the small end):

Overtone (?)	Fundamental
C sharp 4	Not distinguishable
D sharp 4	F 3
G 4 plus 1/4	A 3
G sharp 4	B 3 plus 1/4
A sharp 4 plus	D 4 plus
A sharp 4 minus	E 4
C sharp 5	E 4 plus 1/4
Not distinguishable	G sharp 4
"	C 5 minus
"	C sharp 5

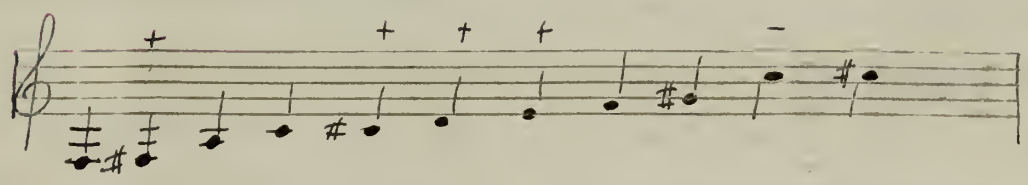
Overtones (?):



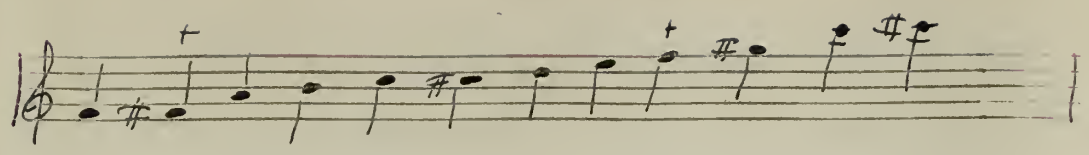
Fundamental notes:

The "overtones" of the second instrument of this type in the Peabody Museum could not be obtained with any clarity, but could be heard only as a series of hard upper noises. The scale of the fundamentals was as follows:

F 2
F sharp 2 plus 1/4
A 2
C 3
C sharp 3 minus
D 3 plus 1/4
E 3 plus 1/4
F 3
G sharp 3
C 4 minus 1/4
C sharp 4



It may be seen that this latter instrument is approximately an octave below the first. An examination of the notes which may be played would yield the following common scale:



This is of some importance, because the instruments are apparently not of the same district, since (1) the wood of the first is much darker than that of the second, and (2) the whole first instrument is much heavier and greasier to the touch than the second, thus displaying different methods of construction. Therefore, although there is no evidence that the instruments of the various tribes are tuned to the same scale, yet it may be seen that there must be some common conception of intervallic values in xylophones. Since xylophones are the leading instruments of the native orchestras, the ones to which all other instruments are tuned, it follows also that there must be a system of scales approximately common to all tribes. A re-examination of the above examples shows that this scalic system is similar to ours. The arrangement of half-tones and whole-tones gives a scale which approximates A major (with two additional chromatics). The notable feature is that most notes have their counterparts an octave above, and that accidentals occur in the same sequence when appearing an octave apart. This similarity has been mentioned by several European travelers. 1/

1/ See especially Torday, Emil, Camp and Tramp in the African Wilds, p. 228.

I. F. 2. b. 3' - Concave xylophones (a)

The concave xylophone is constructed like the bail xylophone, but is curved in the form of a semicircle. There are varying sizes, the largest having upwards of eighteen blades, being played frequently by two men. It may be provided with a thong for carrying, or it may rest on the ground, lying on the largest gourds, which are always in the middle. It is usually found in connection with the bail xylophone, of which it seems to be merely a larger model, and is used for the same purposes.

I. A. 3. - Percussion bells - See L. C. 2. - Bells without clappers.

Part II

MEMBRANOPHONES

Part II - Membranophones

Definition: instruments in which the sound is produced by a membrane stretched over an opening in a vessel.

A. Beaten drums

Definition: instruments which are struck with a beater or beaters.

1. Single-headed drums

Definition: instruments in which one skin is stretched over a hollow vessel and struck with the hand or a beater.

a. Cylindrical drums (2)

Definition: drums made of a tubular body of wood.

b. Hourglass-shaped drum (4)

Definition: a drum in which the diameter in the center is less than at the ends.

c. Cup-shaped drum (5)

Definition: a drum with a body like a bowl, resting on a pedestal or slender foot.

d. Drum with human-shaped legs (5)

Definition: the body of the drum is on a socket terminated by legs, with bracing tightened by wedges.

e. Pot-drum (5)

Definition: an earthen pot covered with a membrane which is held in place by latticework around the bottom of the drum which also serves to protect the body of the drum.

2. Double-headed drums

Definition: an instrument in which skins are stretched over the ends of a hollowed vessel and struck with the hands and/or a beater.

a. Barrel-shaped (6)

Definition: a double-headed drum which is beaten by two performers.

b. Braced barrel-shaped (7)

Definition: a drum in which the membranes are connected and mutually tightened by a network of lacings.

c. Hourglass-shaped drum (8)

Definition: a drum having a double body joined together either directly

or by means of a small connecting cylinder.

B. Friction drums

Definition: an instrument with a skin which is made to vibrate by friction.

1. Drum with friction stick (A)

Definition: a drum in which the stick passes through the top of the membrane and the vibration is caused either by rubbing it against the membrane or by rubbing it with the hand.

2. Drum with friction cord (A)

Definition: an instrument in which a string is knotted through a hole in the membrane and the vibration is produced by rubbing the tightened cord with the fingers or with leaves.

C. Nasalizing membranes (5)

Definition: a membrane fastened over a hole in a hollow vessel which is serving as a resonator for some form of instrument; the

membrane is set into vibration when the instrument is played in the ordinary manner.

1. On drums (A)

   Definition: small membranes of spiders' webs or insect cuccoons which are placed either over a hole in the side of the drum or inside a tube which is inserted in the drum; the membrane vibrates when the drum is struck in the usual manner.

2. On the gourd resonators of xylophones (A)

   Definition: small membranes as above which are stretched over holes in the closed ends of gourds which are used as resonators in xylophones; the membrane vibrates when the xylophone is played in the customary manner.

Part II - Membranophones

General remarks

Factors which differentiate the membrane drums from the slit-drums, or tom-toms, have been treated already. Briefly, drums with membranes, or tambours, as they are known in the Congo, are made of a resonance box covered with a skin, which is often that of an antelope, but may be equally well that of crocodiles, pythons, or iguanas. The resonance boxes are of light and soft wood, generally bofeko (but of course this varies according to the district in which they are made). The skin may be attached with pegs or tied on by strung cords. In general, tambours are carved or painted a little.

Tambours have a very important part to play in the life of Congo natives. They are to be seen in every activity of native life, from the magical incantations of witch-doctors to the rhythmic pulses which accompany workers. Part of the strange power which drums have over the lives of Congo peoples is due to the fact that such a powerful noise can be produced by a mere striking of the hands or a beater upon a skin which, when lately on an animal, had no sonorous qualities at all. Part of it is due to the variety of tones in all their vigorousness and vitality, for Congo natives are fascinated by what we might term "percussion melodies," sequences of rhythmic

configurations which, though produced on percussion instruments, still have a definitely melodic character. But the most significant factor is that of the rhythms themselves, the extremely complicated combinations which drummers are able to build around very simple basic formulas. This latter point is illustrated by the fact that most vocal and percussion music is based (with the exception of pure xylophone music) upon a simple $\frac{2}{4}$ time. However, the complications within this framework, the endless variety of divisions of the measure and the syncopations which carry over measures and groups of measures, show a very high degree of development of rhythmical arrangements, which are just as fascinating to the Negroes, who are accustomed to them, as they are to us, who must study them carefully in order to follow them at all.

Therefore it may be said, before proceeding with the discussion proper of tambours, that (1) drums play a very important role in the lives of the Congo Negroes, and (2) drum playing in the Congo represents a very high level of the development of rhythmical evolution in music.

II. A. 1. a. - Cylindrical drums (2)

The generic name for this drum throughout the whole Congo area is ngoma, and for the long, more conical type, ndungu. Its distribution among the natives may be considered as universal. Details of construction differ only slightly from those given under general remarks about drums. The wood is soft and light; logs are hollowed out so that one end is open, the other closed. Sometimes the closed end retains the original circular form, but other types may be conical and terminate in a point. These drums may be beaten with the open palms or with sticks, but never with both at the same time. They are employed for dancing and festivals of all kinds, but do not serve in the capacity of signalling devices.

In the mouth of the Congo this drum is usually about 1.50 meters long, tapering toward the closed end, and covered with a goat skin as the sounding membrane. The drummer stands straddling the drum, holding it with his thighs, the lower pointed end resting on the ground behind him. It is played with two sticks, customarily while another performer wields a large gourd rattle.

The drums of the BaKongo frequently appear in native bands, which are associated with secret societies, elaborate games which the whole village might assemble to play, and for funerals. A large model, used by the neighbor-

ing BaMbala in war, is known as the molangi.

The bundundu, of the Nkundu and surrounding groups, is a small tambour, the greatest diameter of which is in the middle, so that the instrument is more or less in the form of a lozenge, truncated on its two ends. It is rarely a meter long, but the skin is as large as that of the ordinary ngomo. It is beaten with a baton of which the end is enveloped with dry lianas or banana peels. The player is able to a certain limited degree to lessen the size of the vibrating skin with his right hand. It is used for rhythmic accompaniment in certain popular dances (especially the more ancient ones) and more often during the dances and incantations of the great sorcerers. The tsinda resembles the bondundu, but it is struck with the flat of the hands and is smeared upon the vibrating head with glue (of lokumo, bosenja, or bosanga). The use of tuning paste is a higher development on the evolutionary scale; it may be considered as belonging to Group 4 of our ethnological series. This tsinda drum rests in a little pit in the ground, or sometimes between the legs, or under the armpit. It is used for dances, also. Apparently it was introduced to the Nkundo by the Mbole. Various tribal names for it include:

Injolo:	itsinda, batsinda
BaKutu, Bosaka:	itsinda, etsinda
Ngombe, Booli:	bombela

The BaNgala use two cylindrical drums and a tapering

drum. The Mbondo is about 170 meters high (it is upright) and is played with the flat of the hands. The liwanda is similar, but only about 70 cm. long, and is struck when in an inclined position. The ngoma is a long, tapering drum which is beaten with a stick.

The ngoma of the WaBemba, near Lake Tanganyika, is the only percussion instrument which this tribe seems to have. It represents a departure from the ordinary type of ngoma in the Congo in that it is in the shape of a funnel, hollowed through completely, so that there are two open ends, one of which is covered over with a skin. In addition, another unique feature of this instrument is that it is customary to have an opening of two to three cm. diameter in the side, in which there is fitted perfectly a tiny calabash, which is also open at both ends. The outer hole in the calabash is covered with a filmy skin, evidently of spiders' web or an insect cuccoon, which augments the resonance (this is a nasalizing membrane, belonging to ethnological group 5; See - Nasalizing membranes, II, C. 1.). The large war drum has now disappeared from common usage. It was made of a hollowed tree trunk, covered on one end with an antelope skin. Two or three individuals strike it simultaneously with wooden drumsticks. The mupimpi of the WaSongola is another drum which has almost disappeared. It is hollowed out of a tree trunk about 1.30 meters high by 30 cm. in diameter, and is open at both

Plate 10

Plate 11

ends (this type of drum with a membrane at one end and the other end open seems to occur in this particular district only). It is held vertically by means of a cord attached at the shoulder of the individual who plays it. The smaller part, completely open, rests on the ground. The larger one is covered with an antelope skin which is held in place by pegs and strings. It is struck with wooden drumsticks or open palms, and is used only be men. The ngoma resembles the cylindrical drum which is found in the area of the nearby WaRenga, but with the WaSongola it is more pointed, the small opening (again, there are two) being not more than four cm. in diameter. It is played with the flat of the hands, the musician sitting astride it, and, again, is used only by men.

The mutumbi of the BaHoloholo is a straight and long cylindrical drum, open above, which stands upright as high as 80 cm. The enlarged upper part is from 20 to 25 cm. in diameter, and the lower is about 15 cm. in diameter. It is played with the fingers. The tumba is similar in form to the mutumbi, but is shorter and squatter. It is covered with varan or antelope skin, fixed with wooden pegs. On the side, a hole of 2 cm. in diameter is closed on the inside by a diaphragm made of the white pellicule of a spider's web. It is about 45 cm. long by 25 cm. diameter on the long side, and is hit with the flat of either hand.

The ngoma of the BaSonge seems to be merely a large cavity in a log of wood, covered over with the skin of a she-goat. It is 50 cm. long by about 30 cm. in diameter. The player falls back on the ground and sits astraddle, with his knees touching the earth. He hits the head with the phalanges of his fingers, the thumb and metacarpal joint pressing on the edge of the instrument. It is not played alone, but rather always in conjunction with rattles and other percussion instruments.

In the region of the Kasai basin the BaTetela also have a drum with a calabash inserted in the side with a membranous diaphragm in it.

II. A. 1. b. - Hourglass-shaped drums (4)

This type of tambour is very rare. It consists of two hollowed soft-wood sections, either united directly or joined by a short tube. It is usually struck with wooden mallets which may be enlarged slightly on the ends.

The bonkenja of the Mkundo is made in two sections, the larger one holding the skin. This latter, which is from 20 to 25 cm. in diameter, narrows toward the end and is fitted into the second part which, itself, is

noticeably thinner and narrows to a point which is about 5 cm. in diameter. The whole is encompassed by a lattice-work of cords which are more or less artistically woven. It can be carried on the shoulder or under the armpit by means of a cord attached to an ear of knotted roots. The Injolo and Bombwanja call it the ndungu, and the Bofiji the bongemba. It is not seen among the Elanga and Nkundo proper; the Ekonda still have them, but they are rare. Bonkenja are used during warfare, during which time they are beaten constantly. The drummer marches in the center of the rear guard of aged warriors. He must be courageous, because he cannot defend himself, since the cessation of drumming would signify that the warriors were all in rout. It is struck with a mallet; the rhythm is not steady, but jerky.

The mutumbi of the BaHoloholo, previously mentioned under cylindrical drums, exists also in this form. The enlarged upper portion is from 20 to 25 cm. in diameter and from 30 to 40 cm. long; the lower, or smaller part is 10 to 15 cm. in diameter by 35 to 45 cm. long. The upper opening is covered with the skin of the buffalo. It is played with the index and middle fingers of both hands.

II. A. 1. c. - Cup-shaped drum (5)

These drums appear to be relatively rare in the Congo. The only reference which I have found was the cup-drum of the BaLuba. It exists in two forms; ngoma ya litumba and ngoma ya mutumbi. The ngoma ya litumba stands about 50 to 60 cm. high, and the single head is struck with the hands. It is either laid on the earth on a little pile of straw or is squeezed between the knees. Often the side is garnished with a little spiral skin, a kind of tiny reed pipe, which gives it a special vibration which is very apparent to the listener. It is used for dances. The ngoma ya mutumbi is similar to the foregoing, but is smaller, standing approximately 30 cm. high.

II. A. 1. d. - Drum with human-shaped legs (5)

This type is very common; it often is little more than a cylindrical drum of which the lower edge has been elongated and carved in the shape of legs, instead of being left like a pedestal. Obviously, it is customarily played upright, although it is tilted upon occasion. Its usage corresponds to that of the spherical drum.

The ngomo of the Nkundo tribes is very tall, reaching as high as the chin and even forehead of a person of average size. It is between 25 and 35 cm. in diameter, which is the same for the whole length, and rests on three or four feet. It is hit with the flat of the hands and is used in certain dances, and for singing in drinking parties. It is known as the mbonda by the Nkole, Injolo, Ngombe, Ikelemba, and the weka by the Elinga.

The empete is like the bondundu (see cylindrical drums), but rests on legs, and is never smeared with glue. It is held between the legs or on the ground. The usage is like that of the tsinda (see cylindrical drums). Its names include:

Nkundo, Bokote, Mbole, Bosaka, Booli: empete

BaKutu: efete; Ngombe: etene; Bongando: itemano.

Plate 12

INSTRUMENTS DE MUSIQUE

II. A. 1. e. - Pot-drum (5)

The pot of earth covered with a membrane represents a relatively late stage in the evolution of drum types, because pottery in itself is a civilized art and also because the latticework of strings which holds the membrane in place requires more skill than mere pegs, as in the wooden drums. It is similar to the kettle-drum, except that the latter, in its primitive form, is constructed usually with a membrane on the bottom, to hold the lattice work tighter and to assist in the tuning. The pot-drum is occasionally used by women, and is therefore fairly unique among the drum family.

The ilongo of the Mkundo and surrounding tribes is one such tambour of baked earth. The pot is surrounded by a strung latticework of woven roots to protect the body and to keep the whole intact. An ear of roots makes it easier to hold it on the chest while the drummer is playing it. The ilongo exists in several forms, which vary only in the intensity and quantity of the sound produced. It is used to accompany women's dances, and is beaten by women. It is not seen in men's dances. It is known as the bompili by the Mbole.

The pot-drum of the Mayombe, with a membrane of goatskin, is used infrequently as a telephone-tambour,

instead of the slit-drum.

In the region of the cataracts the pot-drum is beaten at the funerals of chiefs and rich men.

II. A. 2. a. - Barrel-shaped (6)

As is the case with all the membranophones, all of the double-skin drums have received little detailed description in the monologues of anthropologists or civil officials. Therefore, although it is evident that the three types mentioned in the outline (barrel-shaped, braced barrel-shaped, and hourglass-shaped) are fairly common in the Congo, and frequent casual mention is made of them (as well as occasional pictures), little comment about them can be made here because of lack of authentic data.

The abita of the BaPopoie is made from a tree-trunk, the ends of which are covered with some strongly stretched skins. The larger end is struck with the flat of the hand and a small stick. It is between 70 and 90 cm. high and about 20 cm. in diameter. The nabitangwa of the same tribe is approximately the same, but measures 40 to 50 cm. high, and is struck with two sticks.

The ngoma of the WaRundi (note the continued use

of generic names for specific objects) is about 60 cm. long, with the ends covered by antelope skins. It is struck with the flat of the hands for dancing and with sticks for war.

There is a unique type which may be found on the upper sections of the Lualaba. A small tube is inserted in the side of the ngoma which, when the latter is struck, gives forth a vibration which resembles that of a reed pipe. Apparently there is no nasalizing membrane attached in the tube, as was the case in several of the single-headed cylindrical drums.

II. B. - Friction drums

II. B. 1. - Drum with friction stick (A)

II. B. 2. - Drum with friction cord (A)

Friction drums in general have been recorded only in south-central and southwest Congoland, the generic name being puito. There appears to be no differentiation between friction stick and friction cord types, at least as far as the natives are concerned, the two being mixed freely as regards usage and distribution.

The dingwiti of the BaKongo has a strong cord knotted at the end to keep it from being pulled through

the membrane, and at the other end there is a smooth stick. The fingers are wetted and the stick drawn through them, and thus the drumhead is caused to vibrate. It was used in ancient times in the etutu, a dance now out of favor, but is presently reserved for the witch-finder dance. It is played in this capacity as part of a band.

The puit of the BaYaka and BaHuana is constructed from a hollow cylinder, one end of which is closed by means of a hide from which the hair has been removed. This membrane is fastened with small wooden pegs, and through the center there is passed a small wooden stick, secured by two transverse wooden pins, one on each side of the membrane, about 10 cm. apart. A handful of wet leaves is taken in the hand and slid up and down the stick, which is also grasped firmly inside the cylinder with the free hand, producing a note like that of a contra-bass. This is a specialized instrument; therefore the appearance of the friction-drum among the BaYaka is remarkable, since they are primitive people in relation to their neighbors.

In the puito of the southwestern section of the Congo, the vibration is gained from a stick passed through the drumhead. The drum, proper, is otherwise the same as other one-head drums with the lower end open.

In the friction drum of the BaMbala, the stick which runs through the membrane is fastened so that it can be moved about 5 cm. to and fro through the leather. After the drum has been heated so that the membrane will be tightened, the stick is rubbed vigorously with wet leaves and it produces a wierd growling noise which can be heard at a great distance, and which has gained for the friction drum the title of "village leopard". (This is a common name, even outside the Congo).

II. C. 1. - Nasalizing membranes on drums (A) (5)

For reference to this type of membrane, see:

II. A. 1. a: (Cylindrical drums) : the ngoma of the WaBemba (membrane in a calabash, inserted in a drum);

II. A. 1. a: (Cylindrical drums) : the tumba of the WaHoloholo (membrane in the side of a drum);

II. A. 1. a: (Cylindrical drums) : mention of drums of Kasai basin with calabash having membrane in it;

II. A. 2. a: (Barrel-shaped drums): the ngoma of the upper Lualaba country (not really a nasalizing membrane, but similar in function).

II. C. 2. - Nasalizing membranes on the gourd resonators of xylophones (5) (A)

For reference to this type of membrane, see:

I. F. 2. b. 2' : (Bail xylophone) (all under this heading): madimba of the BaKuba (a generic type).

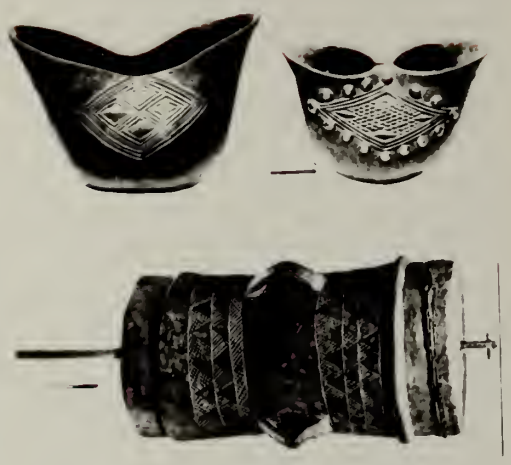


Plate 13

Plate 14

Part III

CHORDOPHONES

III - Chordophones

Definition: instruments with a stretched string that is made to vibrate.

A. Zithers

Definition: instruments with strings stretched over wood with or without a separate or loosely attached resonator so arranged that the plane of the strings is approximately parallel to the plane of the top of the wood.

1. Musical bows

Definition: instruments in which a string is stretched between the ends of a flexible bar.

a. Mouth bow (2)

Definition: the wood of the bow is held against the teeth or the string is held against the teeth; thus

the mouth serves as the resonator.

1' Unbraced

2' Braced

Definition: the string is divided by a loop of thread which is held taut between the bow and the string.

b. Wind bow (A)

Definition: breath is directed against a lamella inserted between the bow and the string.

c. Bow with separate resonator (6)

Definition: the bow rests on a detached vessel.

d. Bow with gourd resonator (6)

Definition: bow attached to resonating vessel.

2. Idiochord zithers - raft zither (6)

Definition: instruments in which the vibrating string is cut from the surface

of the wood and held away from it by bridges; a number of such segments with individual strings are joined together like a raft.

3. Heterochord zithers

Definition: zither in which the strings are attached to the body.

a. Flat-bar zither (6)

Definition: a string is supported on a board placed edgewise with an attached gourd resonator.

b. Ground-zither (6)

Definition: a string is stretched horizontally over a pit in the ground, which pit is covered with a lid of bark or wood.

c. Board-zither (A)

Definition: the strings are stretched over a long board; there is one

bridge at each end; there may be a gourd resonator.

d. Trough-zither (A)

Definition: the strings are stretched over an elongated trough in a piece of wood.

B. Harps

Definition: instruments with strings stretched over wood in such a way that the plane of the strings is perpendicular to the plane of the top of the wood, or sounding surface.

1. Ground bow (2)

Definition: a harp in which one string is knotted through a bark cover of a hole and is stretched by a flexible wand stuck into the ground.

2. Angular harp (7)

Definition: a harp in which the strings are attached to a straight neck which projects from the end of the body.

C. Bowl-lyres (8)

Definition: instruments in which the sounding box is a wooden trough covered with a skin; strings pass from the inside, diverging to the cross-bar which is supported on two parallel arms which are fastened to the body.

D. Lutes

Definition: instruments in which strings are attached to a handle or set of parallel handles fastened to a body in such a way that the plane of the strings is parallel to the plane of the sounding surface.

1. Bow lute (plucked) (A)

Definition: each string is stretched by a separate, flexible rod, and is plucked with the fingers or a plectrum.

2. Tanged lute (plucked) (7)

Definition: the strings are attached to a single handle, or neck, which passes into the body;

strings are stretched taut
by pegs or twists around
the neck.

III. A. 1. a. 1' - Mouth bow - unbraced.

Actually certain types of strings are played by the Congo natives and are classified in Congo dialects as standard instruments which are not bowstrings at all. One such is the mvex, used by all the Bantu peoples, which is a string which is held between the teeth of the holder, the other end being attached to some support, a stick or the free hand, while a second person plucks the string with his finger. The nkonga of the Batswa (Nkundo group) is another such string held between the teeth at one end, with the other end in the fingers. Struck with a small stick, it produces vibrations which are often augmented by the pronunciation of words or phrases. It is played by two people, one holding, the other striking. Another chord used by the Nkundo group is attached to the rafter of a roof; the other end is held in the hand, with or without a stick. By this means the player can lengthen or shorten the vibrating portion. It is played with a small splinter of palm stalk, and is used to accompany singing and for rhythm. The names for it include:

Nkundo (Injolo, Elanga, Bokote): itumbologonda
Boyela: emama; Monye, Bosaka: lomama
Ngonda: imama; Ngelewa: ngelewa
Bongando: imama.

The bowstring is known in Congo dialects as lungungu. Mouth bows seem to be confined to certain localized areas

in the southwestern sections of the Congo. However, this may be due to a lack of systematized investigation rather than any lack of mouth bows in other parts of the country. The inda (lisaga, nkanda) of the Nkundo is made of an arc of a strong creeper, which is very flexible, with a fine, glossy vine as a string. When held in the mouth, it is used for singing; here the lips are allowed to touch and relax from the string. When not held in the mouth it is associated with the hunting of small birds, monkeys, and other mammals. There is a long list of names for this relatively simple instrument:

Nkundo: ingonga, inkoko, lonkoko, itumbologonda

Injolo, Bokote, Bosaka: bongonga

BaKutu: bongonga, bongombo, bongongee

Booli and Mbole: bongongo; Bongande: lingongo

Lokalo: ikoka; Ngombe: bongonga, ingonga

The musical bow of the Ndombe is cut and smoothed from a strip of bamboo; it is of even breadth for about two thirds of its length, where it is cut away abruptly to about a half its previous breadth. The delicate string, a single vegetable filament, is stretched upon this bow; and the bow, not the string, is placed at the lips, and the mouth cavity serves as a resonator.

One musical bow of the BaLuba is made of a relatively thick and heavy stick bent into a U, the cord being render-

ed taut by the natural spring of the wood. The cord is struck with a short, thick stick. The instrument is held in the mouth so that the oral cavity serves as a resonator. In another type, the cord is caught down tautly near one end by a short cord which is tied to the bow. The length of the vibrating cord is varied by slipping the finger along it, while it is struck by a slender stick of midrib. This model may be supplied occasionally with a small gourd or calabash for a resonator.

III. A. 1. a. 2' - Mouth bow - braced.

This type is very uncommon, usually occurs when the unbraced one does not, and is used by women.

The lontana of the WaBemba is made of thinned cane, bent in the form of an arc and held by a fine packthread. It is applied against the open mouth while the cord is pinched with the thumb and index finger. The contact of a finger of the other hand produces two different sounds. It is very weak, and can be heard only by persons who are close by. The katungu of the WaSongola is like the lontana; however, the WaSongola, instead of playing the cord with the fingers, hit it with a

small stick. It is held in the mouth, but is still so weak that it can hardly be heard.

Both of these are used only by women.

III. A. 1. b. - Wind bow (A)

This, also, is extremely rare. The only example which I have found is the lusuba of the BaLuba. It is made of an arc of wood in which there is attached a strip of reed rind. The player holds the rind in the mouth, which is opened a little, and hums a tune. The song is nasal and not very pleasing. The lusuba is played by women only.

III. A. 1. c. - Bow with separate resonator (6)

Almost any of the unbraced mouth bows may be varied in their usage by being placed on a hollow gourd, or calabash. This is especially true in the case of the bows of the BaLuba.

III. A. 1. d. - Bow with gourd resonator (6)

This may be considered to extend over most of the Congo basin, with the exception of only the most backward regions, especially the Pygmy sections.

The point of highest development seems to center around the Lake Tanganyika area. The kupu of the WaBemba is made of a bow of wood from one to one and a half meters long, with a thong of hide for the cord. A pack-thread binds the middle of the cord to the middle of the bow, where there is fixed a sounding box made of a calabash with a large opening. The cord is hit with a small stick at either side of the central thread, which thus produces two tones. It is used only by men.

The kyomba lungulume of the BaLuba is also played only by men. A small gourd is attached to the end of a bow which is about a meter long. The musician holds the end of the bow against his chest and plays the other side with his finger, near the calabash. A stick may also be wielded as a plectrum. In this case the whole is called njila.

Musical Bows:
Mouth Bow:
Wind Bow:
With separate resonator:
With gourd resonator:

Zithers:
Idiochord Zithers:
Heterochord Zithers:
Flat-bar zither:
Ground-zither:
Board zither:
Trough zither:

III. A. 2. - Idiochord zithers - Raft-zither (6)

The raft-zither is found from the northern portion of the Congo through the western section in the south. It is the only idiochord zither which seems to have been brought into the equatorial regions of the continent.

The raft-zither of the BaLuba is constructed out of a casket of reeds, a box of which the cover and bottom are made of juxtaposed small stalks, 25 to 35 cm. long. Strips the length of the stalks are lifted with a knife made from a small shell, which stand about 2 cm. high, but so that the ends are still attached to the stalks. A little stick is used as a bridge under one end. It is played by passing a small splinter over the strips of reed. Often there is a handful of grains inside to increase the noise.

III. A. 3. a. - Flat-bar zither (6)

The flat-bar zither does not belong properly to the Congo area, but rather to East Africa; therefore it is not surprising that it occurs only near Lake Tanganyika, or eastern Congo.

The dyedye of the BaHoloholo is typical. There is a half calabash at the end of a stick of wood of some 50 cm. in length. There are two or three small cords of raffia fibers attached to a small projection at the end opposite to the calabash. These fibers are allowed to pass over a set of wooden frets and then are tied to a short post which is set just behind the calabash. The musician plays the cords with the fingers of the left hand and the thumb of the right, and is able to produce several notes by means of pressure on the frets.

Dyedye

Plate 15

The zeze of the WaBemba and BaLuba is much like the dyedye. It is made of a handle, or finger board, of carved wood. Near the end there are three projecting pieces which form frets. The principal cord is attached about 10 cm. beyond these frets, which means that it can thus give four tones. On the side of the finger board there are one or two secondary cords, each of which gives only one tone. The left hand grasps the finger-board, and while the three fingers of the left serve to press the principal cord against the frets, the thumb makes the others vibrate, while the right hand holds the instrument and plays the principal cord. A calabash is fixed at the end opposite that upon which the frets are carved.

In the flat-bar zither of the BaSonge, the two or three cords are attached to small pins. If there are three pins, four notes may be gained as the musician plays the cords with the fingers of the left hand and the thumb of the right.

III. A. 3. 6. - Ground zither (6)

The ground zither is another type of chordophone which belongs properly in East Africa; therefore it is surprising that it may be found in the area of the Nkundo, or the western part of the Congo basin.

The earth-zither of the Nkundo is actually found a little everywhere along the western part of the Congo River. The resonator is a hole in the ground, covered over completely with a piece of trunk of bontone (it may be replaced by banana wood, but not often). The cover, attached to the earth, is perforated at the point where a stick is passed through and tied to a cord, which is thus held under the log. At the other extremity the cover is attached to a fairly long baton, which is flexible and firmly implanted in the earth. This baton is bent and the cord is stretched between it and the stick. While it is being played the cord is taken between the thumb and the index finger, and is alternately jerked and released. It is a source of amusement for the young. Names include:

Itumbolongonda, itumbongonda, and itumbelongonda;

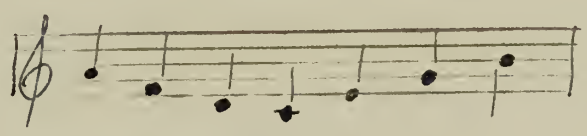
III. A. 3. c. - Board zither (A)

This zither is very common in the Congo, especially near the mouth of the Congo River, where it rivals the sansa in popularity. Here it has a flat back and rectangular box of light wood, approximately 30 by 15 cm. There are only three or four strings of palm fibers. It can be heard in almost all of the native villages, being used to accompany voices as a background for songs. In this capacity it is played in chordal fashion, with a strumming of the same notes over and over. Another type found among the BaKongo is 35 by 12 cm. and supports six strings which are held up by two wooden bridges. The strings pass through holes in the solid block of wood and are fastened in the back. There are two extra holes at each end, apparently for ornament.

The namukenge of the BaPopoie is apparently very sonorous, being made of a rectangular board on which are strung about ten parallel cords. Each has its own bridge (a departure from the generic type). It is played by men only. The unanga of the WaRundi, like the kungu of the WaRega, always has a resonance box of pottery. The five to six pins are tied to a number of wooden pins.

The lusukia of the WaSongola, like the kansambi of the WaRega, has seven or eight sonorous wands attached

to a small board. The length of the wands may be enlarged or diminished by stretching with the fingers. The tones thus produced give a scalic system similar to the European:



The sounding box is made of an open calabash, which is held by a packthread to a small stick which, itself, is fastened obliquely to the end of the instrument. The calabash is held against the chest when the lusukia is being played. Only men may touch it.

III. A. 3. d. - Trough-zither (A)

The trough-zither in its proper form does not occur in the Congo, but is prevalent in East Africa. However, the lofulungu of the Nkundo is very similar in structure. The trough-zither usually has a narrow trough scooped out over the middle of a board, or even a piece of pottery, but the lofulungu has, instead, a circular excavation, a hole, over which cords are passed. Names for this instrument are:

Bomwanja, Lifumba: lokulungu

Mbole: longombe, nkoyokumo

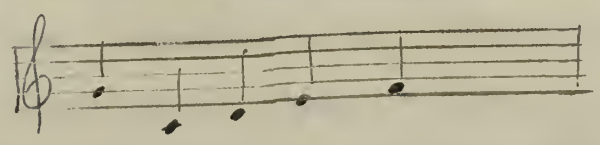
This may be provided with only one string, in which case it is occasionally swung quickly, producing a whirring noise.

III. B. 1. - Ground bow (2)

This form of harp extends over the northern portions of the Congo, as, apparently, do all of the harp types. No details beyond the generic description are available.

III. B. 2. - Angular harp (7)

Harps in the Congo seem to be imitative of the ancient Egyptian harps, from which they may have been developed. There are few specimens in the eastern Congo, but many more in the north and west. The gunge of the BaHuana is representative of the West-African type. There are five strings made of long fibers from a fern. It is played with the two thumbs and tuned:



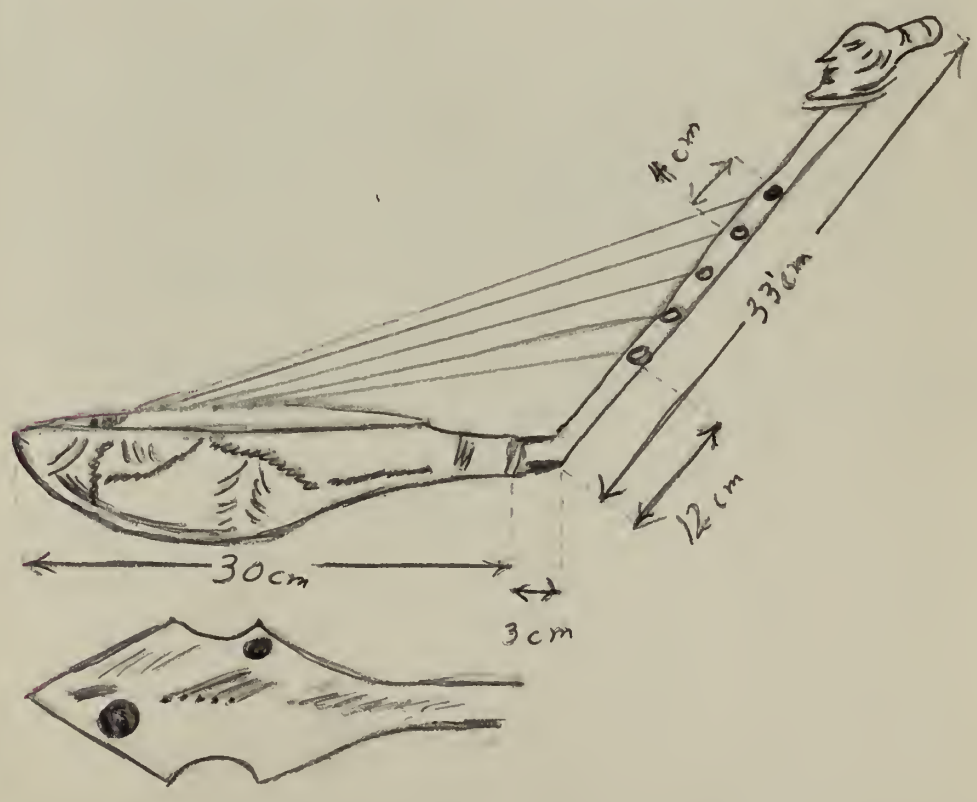
The BaMbala sabe also has five strings, which are wound around pegs and apparently around the neck, as well. There is a carved head at the top of the neck (this is very common). The Manghitu (Mangbetu) harp is also five-stringed; the top of the sounding box is covered with a leather head, on which there are two holes, placed diagonally on either side of the line of the strings.

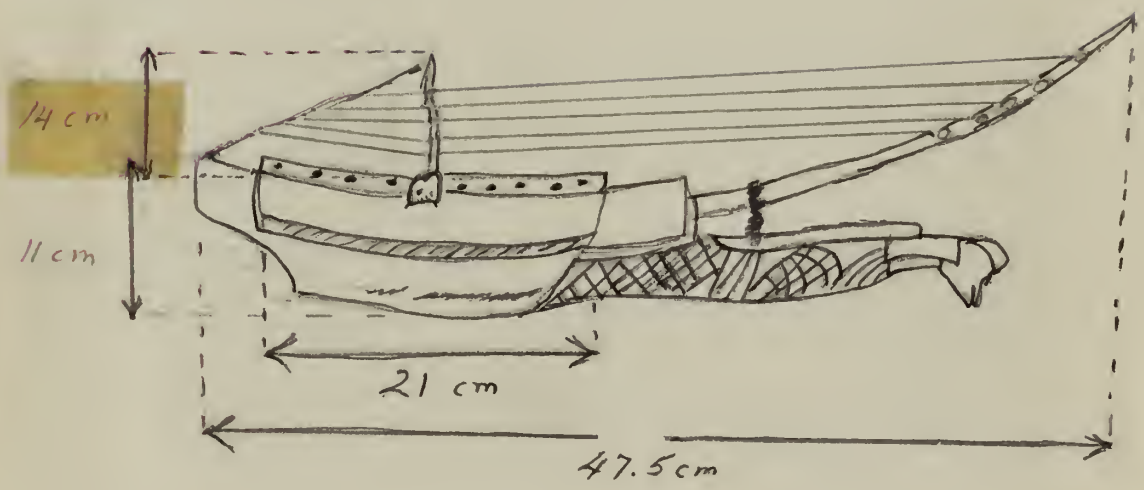
Specimens observed in Peabody Museum, Harvard

The first specimen is like the sabe of the BaMbala which has just been mentioned. As the drawing shows, this harp has a head carved on the end of the neck, and adjustable pegs to which the strings are attached. The head is like the Manghitu type, with two holes, but there are two indentations in the side of this specimen, whereas the Manghitu harp retained its diamond shaped-sides with four clearly defined corners. The skin is stretched tightly over a hardwood frame (the body is not a piece of wood, scooped out, but a slender framework of wands covered with hide) and is sewed in place with wound cords.

The second instrument is rather unique - it may be an importation. It consists of a bird-shaped boat body, made of wood upon which a head of skin is stretched. The strings are fastened at one end to a thick wand (not

a bow, but a stick-like neck) and are tied to an upright stick which is held firmly through the head by a strip of leather. The ends of the strings are looped loosely to a strong cord which passes from the end of the sound box to the top of the upright stick. The function of this cord is to apply pressure to the stick away from the neck so that the strings are held taut. A loop of creepers from the projecting body of the bird around the neck further reinforces the latter.




14 cm
11 cm
21 cm
47.5 cm

Harps: ×

Lyres: o

III. C. - Bowl-lyre (8)

Lyres are distributed over the northern and western portions of the Congo. They are fairly common around the approximate region of the mouth of the River. The lyre of the BaTeke is made with an oval box, covered with animal skin. The arms are passed into and underneath this skin and are attached firmly to the back of the box. The five strings emerge through a small hole in the hide near the rear end and diverge to the cross-bar. A short string tied to one of the arms may be slung over the shoulder for carrying the instrument. There is also a four-string lyre in the same area.

The Ntumba, further inland, possess a large lyre which, with local variations, occurs throughout much of Central Africa. The sounding chamber is made of a large box, rectangular on the side and semi-circular on the end, which is constructed of two pieces of wood joined together. Bows at the end support a cross-bar to which vegetable strings are attached.

The lyre of the BaKuba has seven strings, mounted like those of the BaTeke type. A crocodile skin covers the hollow wooden sounding-box. Some small rattles are strung at either end of the cross-bar.

BaTeke lyre

III. D. 1. - Bow lute (plucked)

The nsambi is undoubtedly the most important lute-type in the equatorial area. In ancient times the nsambi was the official instrument of a dreaded secret society, (the society of the land of the dead), but now it is common throughout the Congo.

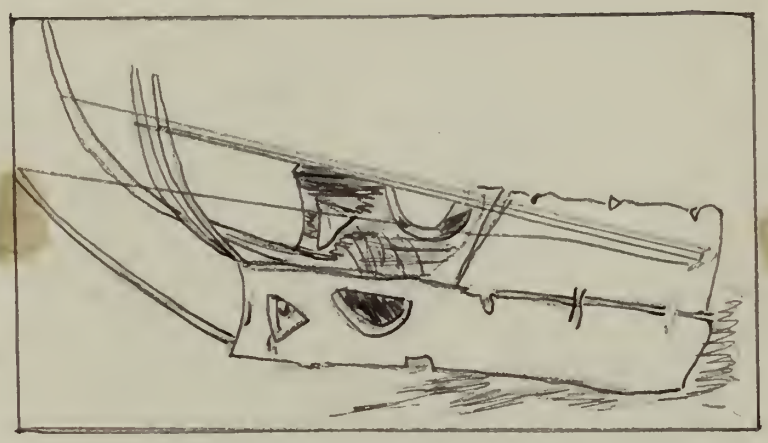
Nsambi

It is made from a soft, white, light, sonorous wood of a sweet, musical quality; it is not too durable, however (this is the case with most of the woods

used in Congo instruments). There are four strings, all made from raffia vinifer bamboo, of different gauges; reading from left to right these are usually: A flat, F, E flat, and C (these must be approximations, since there is no common standard of pitch in the Congo to which all instruments could be tuned accurately). The strings are merely fibers stripped out from their sheaths in the bamboo, and are surprisingly melodious if played with a European violin bow. The tailpiece is a patch of animal skin through which the strings are passed and tied to the under-side. Long bows are set into the back of the body, and then bent forward towards the front, to which the strings are attached by a twist on the ends. Tuning is accomplished by merely tightening or slackening this twist. It is held like a mandolin and played with a plectrum of plaited strands of bamboo, called a palheta. Sometimes the player modulates either the pitch or the quality of the tones by holding the strings with the thumb and first three fingers on the underside where the tail-piece is attached; these he releases as he plays, thus modifying the vibrations. This instrument is used as a background to singing, or for dancing, and is quite melodious in a light, subdued way.

In the BaKongo area, the nsambi is played with a

splinter; the strings are called minza, the player, nembimbi. He is always a member of the society of the country-of-the-dead.



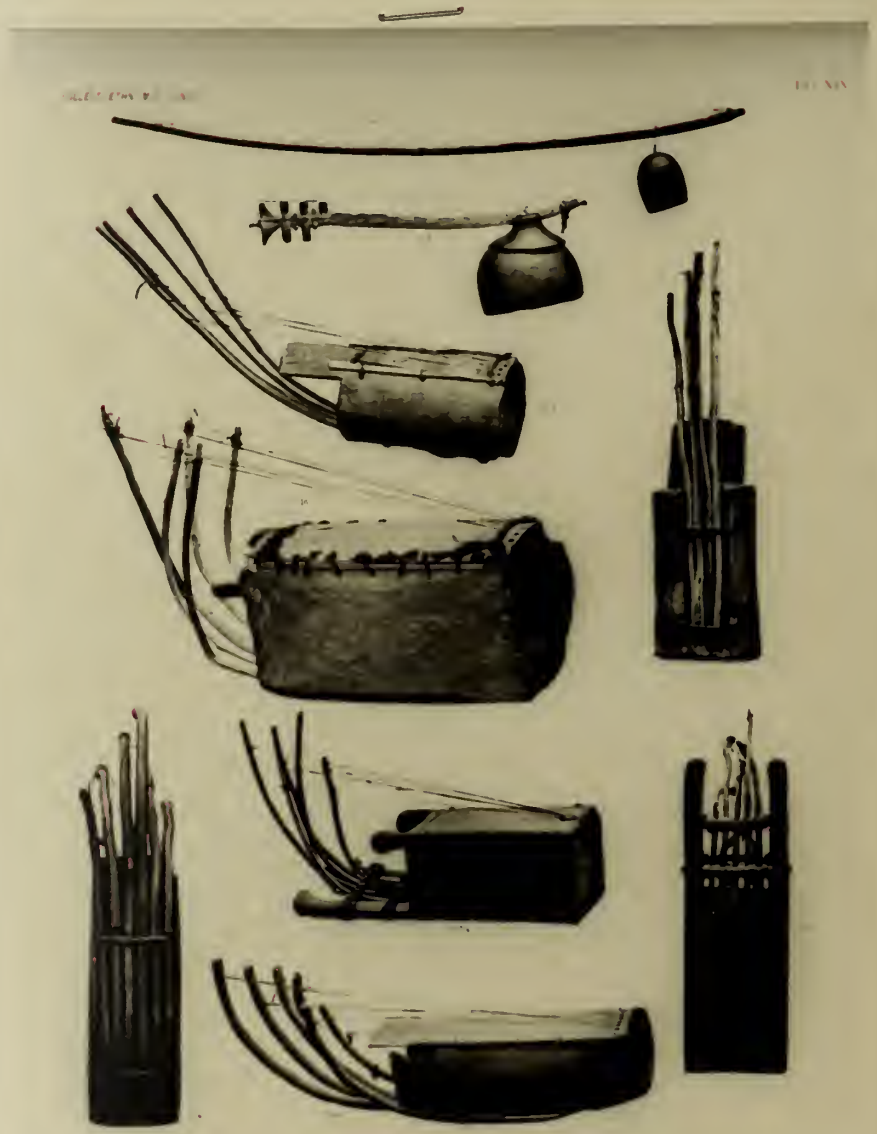
Nsambi

The generic name for the lute in the Congo is kondi. Most lutes are variations of the nsambi, upon which they are usually patterned.

In the Mayumbe lute, the resonance-box is covered with goat-skin and the cords are made from palm-tree roots.

The longombe of the Nkundo is made of a resonance body and five rounded raffie fibers. The body is rectangular, of soft wood, and the cover is glued to-

Plate 16



gether by means of elaka resin. At their bases the raffia fibers are attached to the interior of the box through little holes in the cover. Here they rest on small pieces of wood, which lift them a little. At the other end, they are attached to some flexible sticks, which are bent and fixed separately underneath the box. The fibers are simply rolled up, not tied; the tip is passed under the last roll, for more firmness. The rigidity of the strings gives them sufficient stability so that they do not loosen quickly. The longombe is played with the thumb, around which is rolled a longoli (skin of a root). Sometimes the index finger is used alternately with the thumb, and to stretch one of the cords with more force. The fibres are tuned by ear. The longombe is held sidewise on the leg or against the thigh. The other thigh is continually in movement to close or open the front of the resonance box - this is similar in effect to an organ swell. This is reinforced by the movements of the right hand as the player touches and releases the vibrating cords. It is heard mostly as an accompaniment for songs, especially on great occasions or festivals, when bard-like musicians manipulate it.

The limele of the same area is similar to the longombe. It is a little smaller, and there are six strings of raffia. The essential difference lies in

the method by which it is played. It is placed on the knees parallel to the legs. It is sounded with the thumb and index finger at the same time, with a piece of longoli bark. Vibrations are produced by both hands at the same time, and never is one used to modify the intensity or duration of the vibrations. Thus an harmonic effect may be given. Its value as a musical instrument goes beyond the staid and simple rhythmic accompaniment; its accompaniment is harmonic; and one can play the limele without singing.

The limele is used for singing, solo playing, and for hunting. Names for it include:

Bosaka:	limele
Booli:	imele
BaNkanda:	bompete
Bongando	bolima

The kizanzi ((this is the name of the local sansa, also)(see I. E. 1. sansa)), is used like a sansa, for accompanying very soft, whispered singing.

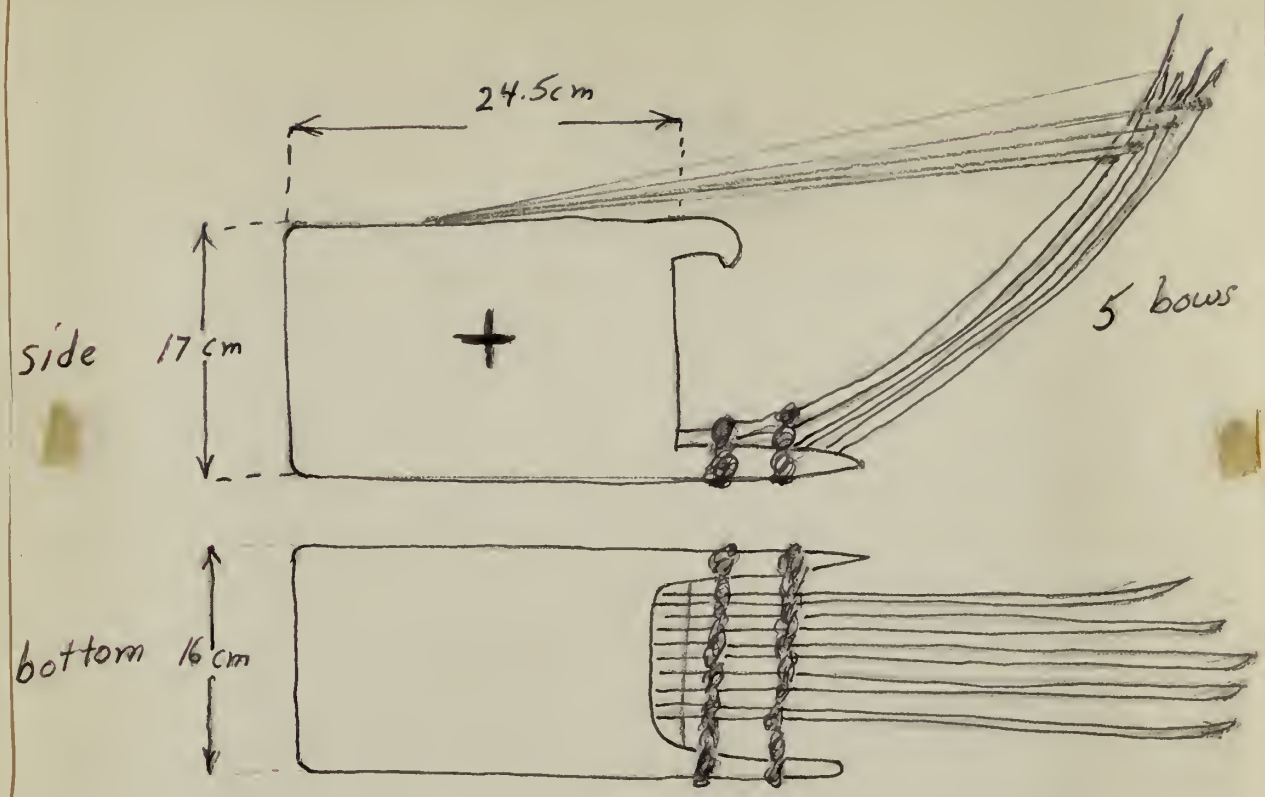
The lute of the Kasai region has a hollow body, 30 by 40 cm. on the top, which has five bows and strings, which pass over a sounding surface of skin and are fixed to a tailpiece of leather. It is held on the left knee and cradled by the left arm, while the bows are manipulated so as to tighten or loosen

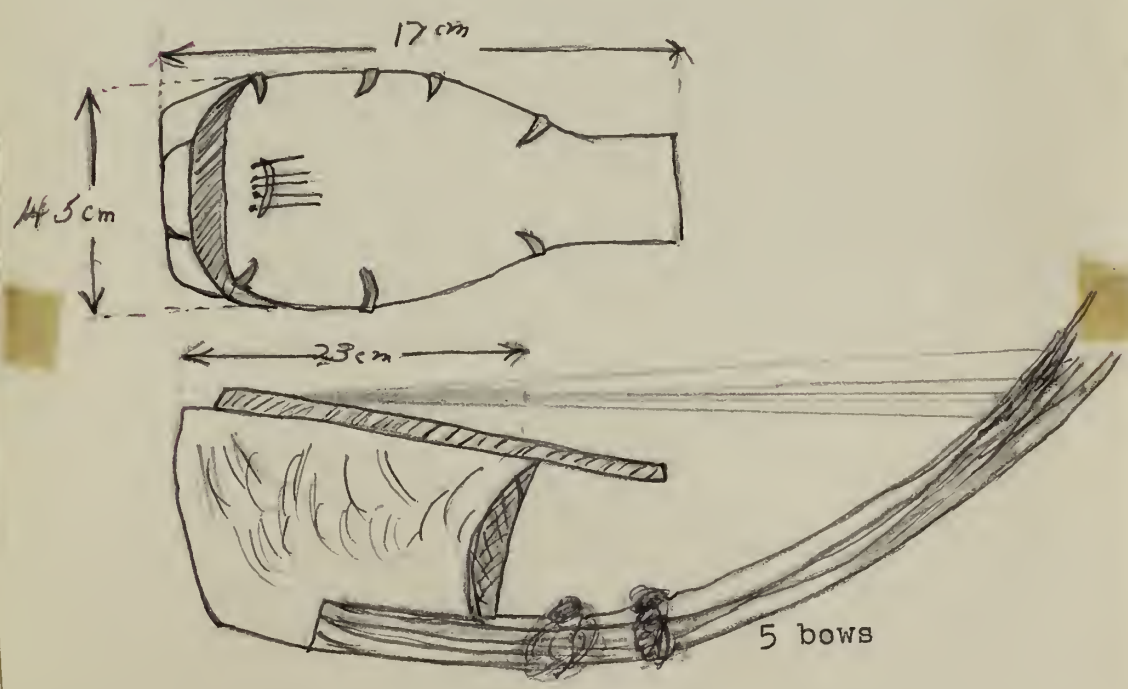
the strings according to the pressure of the hand. The right hand plucks the five strings simultaneously.

An interesting variation on the general type is provided by the BaKongo. Here that end of the body which is nearest the bows is often adorned with a carved head, which stares upward through the strings.

Specimens of bow-lutes examined at Peabody Museum, Harvard.

The first specimen is similar to the nsambi, except that there are five strings (but this may be a local variation). The box is made of a hollowed piece of wood, rectangular in shape, of which one side is left open, with a cover on it. On the upper side of the box, nearest the strings, two horns of wood stick out, probably as handles for carrying. On the bottom two legs run parallel to the bows and are tied to them with vegetable fibers, making them firmer. It was not possible to obtain any of the tones of the fiber strings, for obvious reasons.


24.5cm
side
17 cm
5 bows
bottom
16 cm


17 cm
14.5 cm
23 cm
5 bows

Bow Lutes: ●

Tanged lute: ⊗

In the second specimen the body was more rounded, so that there were no clearly differentiated sides, other than the top. The whole is carved and hollowed from a single piece of wood, with a top tied on by seven vegetable cords. This top does not not quite cover the whole of the hollowed section, so there is a narrow strip through which the interior may be seen. The strings, of fiber, are approximately 50 cm. long, and are attached to the underside of the cover, passing over a short wooden bridge and through a series of small holes in the wooden top. The ends of the bows are merely plugged into the bottom of the box, into holes provided for the purpose, and are tied together, allowing a certain amount of rigidity.

III. D. 2. - Tanged lute (7)

This is properly an Arabic instrument, belonging on the east coast of Africa, near Zanzibar (qobūz), so it is not surprising that there are very few examples to be found in the Congo. It is commonly called a mandolin by most investigators, and has pegs for tuning, attached to a single stout stick, for a neck.

The kokolo, found near the cataracts, is made of a block of wood carefully hollowed out; it has three or four cords of raffia vinifer fibers. The "mandolin" of the Mangbetu has five cords of plaited fibers, held with pegs and a bridge. It is supposed to be a highly developed instrument, but details are lacking. The occurrence of such an instrument among the Mangbetu is not odd; Mangbetu are infiltrated with Moslem people and have taken on many of the ways of Arabian Islam, where the qobūz was developed.

Part IV

AEROPHONES

IV - Aerophones

Definition: instruments in which the air primarily is made to vibrate.

A. Whirling aerophones - bull-roarer (1)

Definition: a long, thin piece of wood is swung by a string so as to rotate around its longitudinal axis; the air is made to vibrate by the rapid motion of the instrument.

B. Flutes

Definition: instruments in which a thin stream of air directed against a sharp edge, sets up vibrations within a hollow vessel.

1. Tubular-shaped flutes

Definition: the vessel is a hollow tube, in which the air is made to vibrate.

a. End-blown flutes

Definition: tubes blown at the upper end.

1' Bone flute (1)

Definition: flute made of the tubular bone of an animal.

2' Pipe (1)

Definition: flute made of a long tube with no side holes, blown at one end.

3' Two-chambered vertical flute (A)

Definition: a tube, or tubes, divided into two sections and blown from either section.

4' Nose flute (3)

Definition: a flute blown with the nose.

5' Pan-pipes (4)

Definition: an instrument made of several pipes, closed at one end, without finger-holes, tied together like a raft.

6' Set of pipes (4)

Definition: a number of pipes distributed among several players.

7' Cone-flute (5)

Definition: a flute in which the bore tapers to a point; there may be several or no finger-holes.

b. Stopped transverse flute (2)

Definition: a flute made of a tube which is blown by a hole in the side-wall;

the end nearest the blow-hole is plugged.

2. Globular flutes (3)

Definition: a flute made of a hollow sphere with openings for a blow-hole and finger-holes.

C. Horns, side-blown, of animal horn (7)

Definition: instruments made of tubes set in vibration through lip-motion, such tubes being fashioned from animal horn of which the interior is scraped out and in the side of which a blow-hole is dug.

IV . A. - Whirling aerophones - Bull-roarer (1)

The bull-roarer is distributed throughout the whole area of the Congo, and is usually connected with religious or magical rites. In particular, it is associated with the initiation ceremonies, the circumcision festivals, of young boys. Here it is whirled near the roofs of huts in which women are forced to seclude themselves, and is supposed to be the voice of a huge bird, a supernatural figure.

IV. B. 1. a. 1' - Bone flute (1)

The bone flute is found everywhere in the Congo (excepting the Pygmies). It is very easily made, and is often ranked as a toy; but occasionally whole groups of players, each with a flute of a single note, assemble as a part of a native band.

IV. B. 1. a. 2' - Pipes (2)

These are about as widespread as the above, being constructed simply from pieces of bamboo, hollow sticks, etc. Near the mouth of the Congo crabs' pincers and antelopes' horns are often used, but mostly certain vegetable shells and stems have been found adequate.

Some are ornamented elaborately with monkeys' tails and others are carved with rude sculpturing. Of this type, one odd specimen has been found which shows a sphinx of the Egyptian type. Others have animals and crocodiles carved on them. The whistle is important in warlike demonstrations, at which its shrill notes are sounded in order to strike terror into the enemy. It also forms an important part of the stock-in-trade of the fetish man.

The BaYanzi flute (libio) is made of cane; this is heated and the outer rind removed. There are two playing holes for the fingers, which are placed near the lower end.

The BaPopoie nazangi and the WaBemba mpingu are whistles of wood. The mpingu is supposed to have the magical power of dispelling rain. The nepe, of wood, has three holes.

The BaLuba kahulu and the flute of the BaMbala are quite similar. Here there is a hollow wooden section surmounted by an ornamental crescent. There is one finger-hole, and therefore two notes. The kahulu is used for signalling.

BaMbala flute

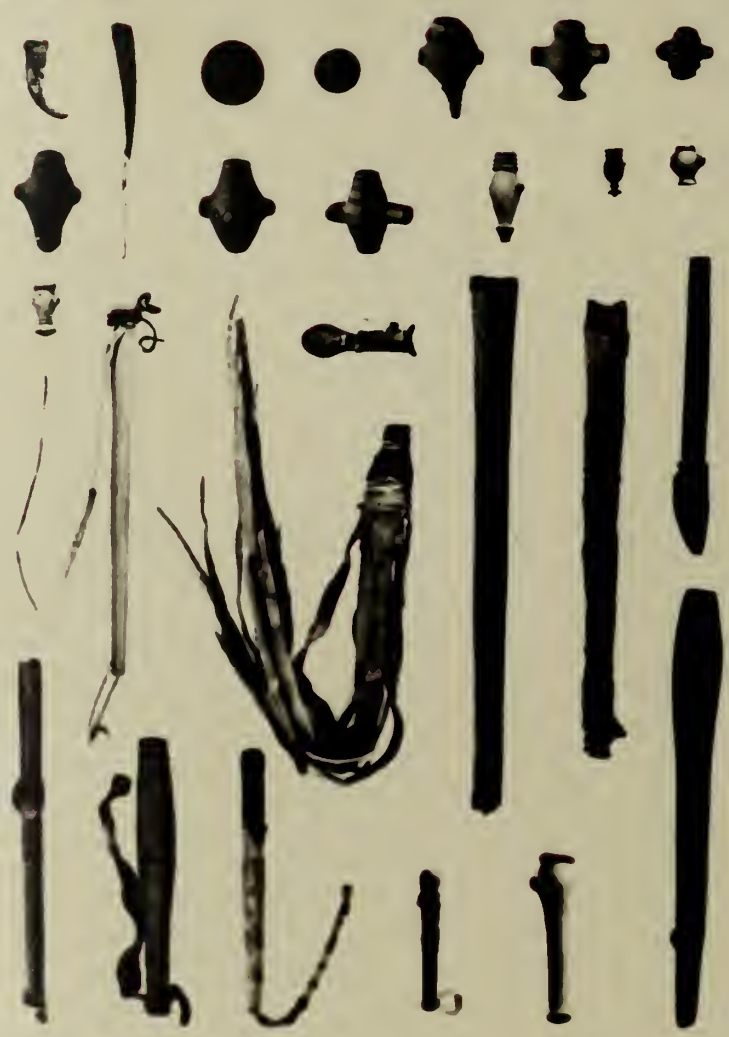
IV. B. 1. a. 3' - Two-chambered vertical flute (A)

The two-chambered flute is another rare instrument. Considered as a local development in Africa, its appearance in the Congo is limited to the central regions.

The bompwe of the Nkundo (bompwende of Elanga, and bosende of the Injolo) is made of a peeled root, split, from the bokoola tree or bosaka tree, held together with a cord; between the two halves there is a tiny dried leaf. The whole measures about 20 cm. long. Instead of the root there may be a tropical creeper, also split and tied together. The bompwe is used for hunting, to call animals by imitating their cries.

The kasiba of the BaHoloholo is considerably

Plate 17



different from the bompwe. It is in the form of a cross, each branch being hollow. It is blown usually by the upper hole with the fingers touching lateral holes. It may attain a length of from 10 to 12 cm.

IV. B. 1. a. 4' - Nose-flute (3)

In most cases this is a woman's instrument, with the exception of those instances when it is treated as a toy for children.

The tsimbi of the BaHuana is made of jointed cane played with the nose, and is held in position thus: the left hand grasps the upper end with the thumb and three fingers, while the index finger holds the right nostril as the left blows. The right hand is held two inches lower than the opposite end. The upper, or blowing end, is closed partially by means of a kind of gum, and an additional note may be obtained by closing the lower end with the palm of the hand.

The lifwafwa of the Nkundo is made of a fruit which has a hole pierced all the way through - a fruit as large as a kidney bean. A little whistling sound is gained. It is a source of amusement for children and is heard occasionally during dances. The imbambo is most often carved out of a willow branch, and hol-

lowed out with a hot iron. To one extremity is fixed a piece of calabash, which is attached with bolaka resin and pierced with holes. The single tone may be heard as the player holds the open end under the nostril, while closing the other nostril with the fingers. It is known also as the bolukuluku.

The BaNgala have a nose-flute which is made of ivory. Details concerning this peculiar instrument seem to be lacking.

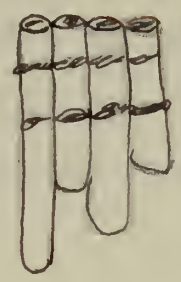
IV. B. 1. a. 5' - Pan-pipes (4)

Pan-pipes are generally confined to south-central and south Congo, in the districts of once-strong states. There is a certain amount of systematization here, with much attention being paid to common pitch of instruments of various villages.

Pan-pipes with the Nkundo (balenge) are evidently a recent innovation. They are made from stalks of papaya leaves, with one end closed. There are five or six such stalks, each with a tiny vent near the bottom.

The pan-pipes of the BaNgongo, in South-Central Congoland, are four, so staggered that although the outside pipes are the largest and smallest, the two

inner are reversed.



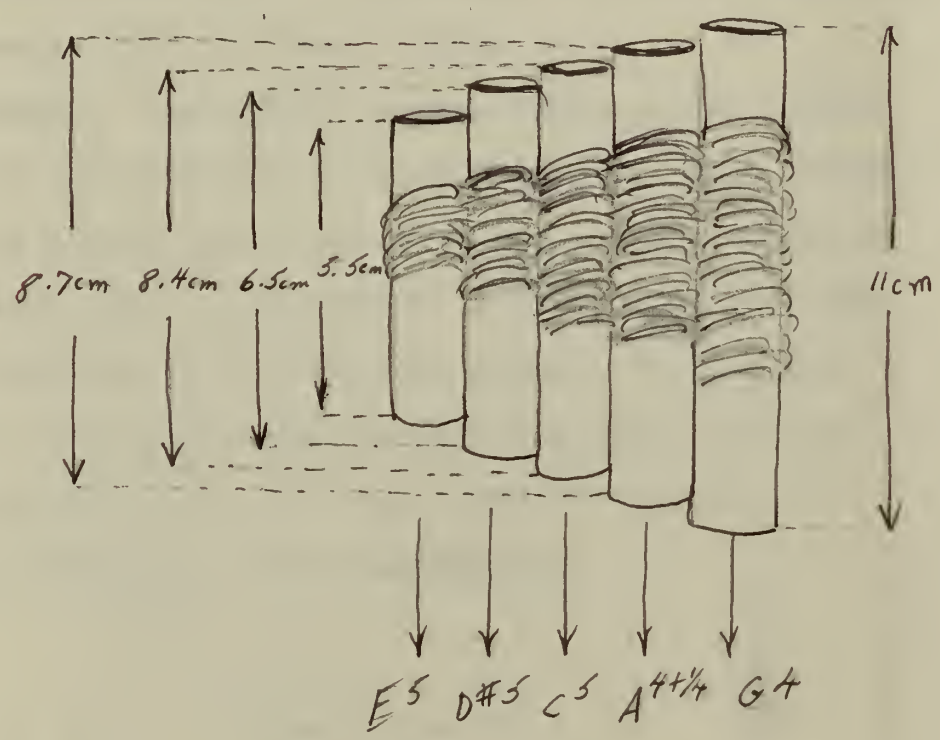
The BaSonge use seven tubes of large grasses tied together with three twisted cords of raffia fibers. The lengths of the pipes are from 14 to 7 cm., and the overall breadth is seven cm. The lower ends are plugged in order to remain closed; some are further glued with elemi resin, but not very effectively. These pan-pipes are called misiba by the BaLuba.

Specimen examined in Peabody Museum, Harvard.

This set of pan-pipes (see next page) was made of five lengths of cane of graduated size, bound together securely by a considerable amount of white cord. The ends were stopped, as is the custom with pan-pipes, and five tones could be obtained by blowing lightly across the openings:

E 5, D sharp 5, C 5, A 4 + 1/4, and G 4.

All the notes but the A 4 + 1/4 were tuned quite accurately, and it may be that this one deviation was due to poor workmanship or shrinkage of the canes.



Set of Pan-pipes

IV. B. 1. a. 6' - Set of pipes (4)

Excepting its appearance amont the Pygmies, the set of pipes may be considered as foreign in the Congo. Those tribes who do have it are mostly toward the south, bordering on the land of the Venda, who live nearer to the Zambesi than the Kasai River.

However, the BaBunda of the Kancha River (Kasai basin) have orchestras of stopped pipes. Each instrument can produce only one note, but a large number of performers play. Apparently they keep time very exactly and come in at the right moment, so that the melody is quite pleasing to European ears, and considerably different from the "hubbub" whith which African dances are often accompanied.

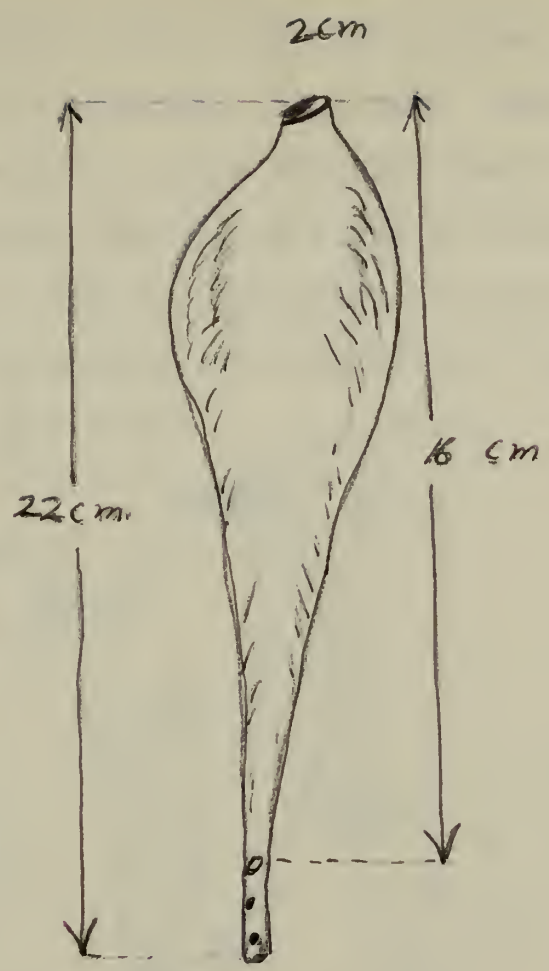
IV. B. 1. a. 7' - Cone-flutes (5)

The cone-flute may be considered as an elaboration of the simple pipes (no. 2). The mbasa or matunga of the southern Congo area is representative of the general type. It is something like a flageolet whistle without a mouthpiece and with fewer, or often no finger-holes. The bore is conical, as is the general shape; it is rarely curved. The parabola to the first and

Plate 18

larger boss is about 5 cm.; the longer one is about 20 cm. The bore is about 1.5 cm. at the playing end, and tapers to about a third of that (.5 cm.) at the other. No details as to the ranges of these mbasa are given.

Mbasa

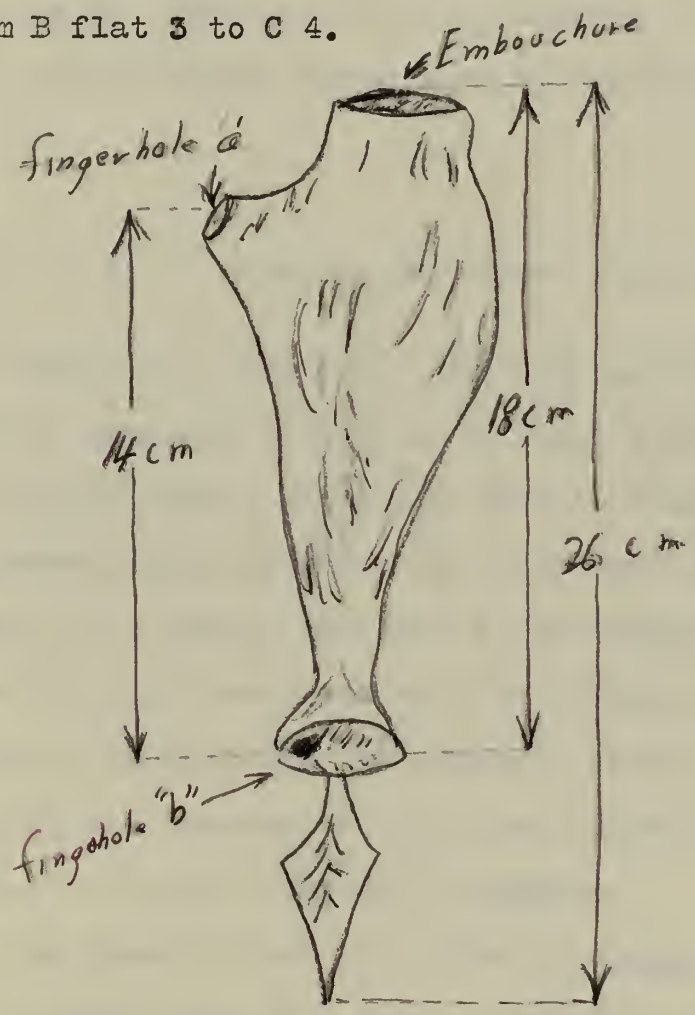


Cone-flute

Specimens examined at Peabody Museum, Harvard.

The first specimen (see above) corresponds closely to the mbasa. It is made of jointed cane, covered with animal skin. The bore is conical, tapering down from 2 cm. to a figure which I could not measure with any accuracy (approximately 1 cm. minus). The embouchure is slightly slanting, pro-

viding a sharper edge on the lower side. The lower hole must be closed with the finger, because it is almost impossible to play the pipe when it is open (the very lowest hole is made for a string, and has nothing to do with the acoustics of the pipe). By modulating the breath it is possible to vary the tune from B flat 3 to C 4.



The second specimen (see above) has been carved and burned out of a single piece of fairly hard wood

of a deep brown color. The bore is conical, and at the mouthpiece it is about 2 cm. in diameter. It is connected to the first fingerhole and terminated by another fingerhole at the end. Beyond this lower hole there is a diamond-shaped spade of wood for an ornament. Four tones may be obtained from this flute: open - C 5; lower closed - A sharp 4; both closed - D 5; upper closed, lower open - D sharp 5.

IV. B. 1. b. - Stopped transverse flute (2)

Technically speaking, the stopped transverse flute is entirely wanting in Africa, and of course in the Belgian Congo. Here the term is taken to mean a transverse flute in which the lower end is stopped. However, the common practise in the Congo, at least, is to stop the lower end with the finger, thus rendering it the same as the stopped flute in function. Although the transverse flute has universal distribution, it is not plentiful anywhere.

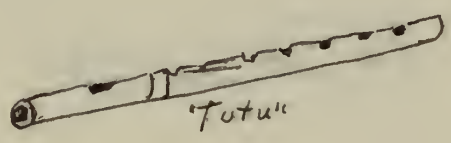
The generic term for flute is <u>etutu</u>. The Mayumbe have a flute made of a small elephant's tusk; it is difficult to play because, like most of the transverse wind instruments of the Congo, the blow-hole is little more than a long, narrow trough. Here, because only

one note may be obtained from each instrument, groups of players form a band, as in the set of pipes.

The ikote of the Injolo, or bokofe of the Bokote (both of the Nkundo area) is 20 cm. long. It is usually made of willow, but can be rolled out of a leaf of a papaya tree.

The musololo of the BaHoloholo is a transverse flute or feed stopped, as mentioned previously, with the finger. The BaMbala burn their flutes from soft wood; but these are usually toys for boys.

The tutu of the BaKongo is made from hollow bamboo or burned from soft wood. The upper end is stopped. (This and the following flutes all have a number of finger-holes). The tutu may have as many as six holes.



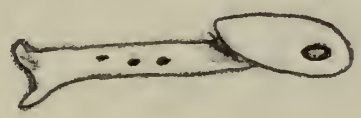
Flutes of the tutu type seem to be common near the mouth of the Congo River.

The musololo of the BaLuba is a large flute of

bamboo with three or four holes, and gives five or six tones (note the musololo of the BaHoloholo, above, which has no finger-holes). It is used by wandering minstrels.

The BaSonge transverse flute is cut from a rattan stalk which is sectioned and hollowed out, leaving five holes. The end near the blow-hole is closed by a rundle of calabash shell cemented with resin. It is about 20 cm. long, 2 cm. diameter for the bore.

The wooden flute of the Mongwandi (on the upper Mongala River) has three finger-holes. It is carved, preferably, in the imitation of a human thigh-bone:



End-Blown flutes:
Pipes: o

Two-chambered: C

Nose-flute: N

Pan-pipes: P

Set of pipes: X

Cone-flutes: V

Stopped transverse flute: X

Globular flute: o

IV. B. 2. - Globular flute (3)

This odd instrument, which is very much like the ocarina (but is said to have a much richer, purer tone), is very popular and common in all the BaNtu sections of Central and South Africa.

The evongi which is found near the mouth of the Congo is typical. It is made from a hollow berry called ebumi, in which three holes are made: one at the top, a large one for a blow-hole; a smaller one at the bottom for the thumb; and a still smaller one near the blow-hole for the forefinger. This type is capable of producing a chromatic scale of nineteen clear, organ-quality notes from C 3 to F 4, an eleventh above (these taken as means, not exact notes), but the natives never utilize this full range. Berries of different sizes give different notes.

Evongi (ebumi)

The lototsi of the Nkundo is made from a fruit which is quite spherical. There is one hole in the apex and from two to four in the rest of the body. Many kinds of fruits are used: ememo fruit, bokoto fruit, etc., but a calabash is the most popular; some may be seen of potter's earth, dried in the sun, or baked. It can be played dry or after pouring on it a little water mixed with some white sand. It is used mostly for war, but also for amusement at the feasts. The Nkundo call the large calabash size the losilingi, the medium size (calabash, fruit, earth) lototsi, the smallest size (tiny calabash) lotolonge. Other names include:

Bosaka, Boyela:	ifondo
Bongando:	ekombo
Mbole:	lofondo, boleli, itotsi, lokese, ieto
BaKutu:	lofondo, ifondo, losoko
Booli:	lofondo
Ikongo:	ifondo
Ngombe:	imonyi
Lotoko:	lofondo

(see next page for illustration)

The lofolenge, or ifofelenga, of soft wood with the inside dug out, and perhaps only one hole, is a poor imitation of the lototsi. Also, the lototse of the Nkundo, made from the neck of the calabash, is considered an imitation, to be played by children. Names for it:

Boyela:	limpeko
Bosaka:	limpeko or ntsitsi
Bongando:	ntsitsi
Bokalo:	elimba

Lototsi

The ocarina of the BaKela is like those described. The size of an orange, with three holes, it can produce, with strong overblowing, five piercing tones. Its quality is so shrill and it is so powerful that it is a favorite instrument for use with trumpets. Those of the WaBemba, WaSongola, and WaRega are approximately the same, except that the two-toned ipili of the WaSongola and the kaengere of the WaRega are used exclusively by men.

IV. C. - Horns, side-blown, or animal horn (7)

The side-blown animal horn seems to be common to all of Africa. It is the only type of horn which may be found in the Congo. For the sake of convenience it may be well to classify horns into the following groups: ivory, antelope, and domestic animals. In addition, there are a few types of horns made of lengths of bamboo, clearly an imitation of the animal horns, and therefore considered as such technically here.

Ivory side-blown horns

In general it may be said that it is in ivory

that there are to be found by far the most numerous and diversified kinds of horns. Although much the same in shape, ivory horns vary considerably in length, from 1 meter 70 cm. downwards. An artificial elongation of the ivory is sometimes effected in wood, often covered with fur of some kind. Occasionally horns are provided with a loop for carrying them. The quality differs from instrument to instrument; usually it is a sort of deep, mellow organ tone. Frequently bands of seven horns of different keys may be heard playing in harmony, and traders and investigators have been enthusiastic about the degree of skill to which the musicians have attained. But in other cases, perhaps the most common, the players are content to emit wierd and discordant noises, which, however, delight keenly their uncritical audiences.

The horns of the BaKongo are of all lengths, each with a mouthpiece which is approximately in a diamond shape. These are almost invariably grouped together in groups of seven, to form a part of the town band. The seven horns are set to a common "horn" chord, which is called eleko. All through this area seven horns, usually meaning seven notes, are common. In the region of the cataracts, cala-

bashes are attached to provide a humming noise.

The Nkundo use plain ivory horns for hunting, feasts, and warfare. Names for them include:

Nkundo: Elanga, Bokote, Boangi, Injolo:	bompate (bonjo)
Bosaka, Ikongo:	bompate
Bongando:	bopate
Mbole; BaKutu:	bompate, bonyo
Booli:	bompate, iongo

The Nkundo alone may also attach a resonance box in the form of a small drum or a little wooden box, which augments the force of the sound considerably. This is known as ekungu, and is used but rarely, mostly at the deaths of very rich men.

The horns of the BaKela are about 50 cm. long. The mouth-hole is cut in the shape of a large coin.

Among the Sudanese tribes, the gpwanguet of the Ababua is a war-horn used exclusively by men. The horns of the Mangbetu are played by "virtuosi", who not only imitate the sounds of animals, but can also give out softer, more tender emotional tones.

The nambodja of the BaPopoie is a horn made for corresponding from village to village. It gives

Plate 19

two tones, and may thus be used like a tom-tom. It has practically disappeared, however.

The kimpungili of the BaLuba, used for marching and communication, is a huge ivory horn, about a meter long in the ivory part, to the large end of which is added about 50 cm. of wood, which is carved elaborately. The blow-hole is about 30 cm. from the closed end.

The method of using horns in groups of seven is prevalent in southern Congo sections. Although they cannot be tuned exactly, the four smaller horns, ngandu, ngundu, luenze, and koka titi, play G sharp, D. flat, E flat, and E on the treble clef. Notes played by the other three, the evula, are lower, one always being an F. Usually one of the higher instruments begins with a long note, which is followed by alternate trumpetings from the others, which results in a style like bells as heard in a cattle market.

Horns of antelope-horn

As previously mentioned, many ivory horns have their counterparts in antelope horn. The shape is not the same, of course, since that of the antelope is more graceful in its spiral form, but the function

and tone are about the same.

Antelope horns are common in the cataracts area, and among the Nkundo groupings names include:

Nkundo, Elanga, Bokote, Boangi, Injolo:	lonkenge, (ilola), iefe
Bosaka:	mosa (lilonge)
Boyela:	ifonge
Bongando:	bopate
Mbole:	ilola, bondombe
Ikongo:	boloa, bondombe, bomose
Booli:	iseke, bomparte
BaKutu:	bolola, bondombe

The kibuga of the BaHoloholo is of antelope horn which has been polished highly. It is often 80 cm. long. The nambodja, in its antelope-horn form, is similar to this, and is used for signal-long. The antelope-horn instrument of the BaSonge has a tiny tubular root pushed through a hole into the bore of the horn; this is the only mouthpiece of this type which I have seen recorded.

Horns of domestic animals

These are rare, as are the animals from the horns of which they are made. The lusengo of the WaBemba, and the mpanda or monze of the WaRega, are the only horn-types owned by these tribes. They are of buffalo horn, having a small hole pierced near to the blow-hole. They give two tones and are used customarily for signalling and communication. Very similar to this is the kengere of the WaRundi, of cow-horn, used also for communication. The monzo of the WaSongola, is of buffalo horn with a hole in the end in addition to the blow-hole on the side. Its two tones can be heard at great distances. It is a war instrument, used only by men.

Horns of wood, imitation animal horns

These may be found scattered in almost every area, especially that of the BaKongo and the lower Congo River. They are substitutes, and are used in the same fashion as ivory horns, which are their most frequent models.

Horns examined at Peabody Museum, Harvard.

The first specimen is of ivory, conical (not exponential) 67 cm. long. There is a large embouchure (4.5 cm. long) at the knobby end, evidently burned out. The rest is scraped and carved so as to have a very thin skin. It has a wooden, dull tone with few upper partials, and is capable of only one note (perhaps more by an exceptional player).

The overall length of the second specimen, of bamboo, is 105 cm. The bamboo is joined together by strips of rattan thongs, smeared with oil. At the small end a mask, 37.5 cm. long, is attached to form a long, trowel-like figure with a small head at the base. The embouchure is rectangular, 3 cm. by 2 cm.; needless to say, it is quite difficult to play.

Horns:
Ivory: x

Antelope horn: o

Horns of domestic animals: ∴

Wood: ω

CONCLUSION

The instruments of the Belgian Congo present a strange and fascinating picture to the musicologist and ethnologist alike. Here there is a remarkable, imaginative development and elaboration of some types of instruments (the xylophone, with the peculiar forms of the table-x, bail-x, concave-x, and all the variations) and here again is a very primitive model, the utility of which is completely restricted by the lack of imagination and ingenuity in its construction.

For the ethnologist there is the tracing of the many lines of cultural development depicted here. The influx of the many tribal types of prehistoric times may be seen evidenced. But perhaps even more important than that, the grouping of instrumental developments - the perfection and distribution of various kinds within clearly-defined areas - show the lingering proofs of the once-great centralizing influences of the native kingdoms of the area. Little reflection is required to realize that most of the instruments tabulated in this thesis may be catalogued roughly as belonging to one of four areas in the Congo: that of the BaKongo, near the mouth of the Congo River (embracing in influence the Mayumbe,

BaTeke, BaYaka, BaMbala, and others); the Nkundo, around Lake Tumba and the Congo River (embracing all the tribes mentioned in connection with the Nkundo); the Sudanese tribes of the northeast, especially the Mangbetu and the Ababua; and the tribes around Lake Tanganyika, comprising for the most part the once-powerful kingdom of the BaLuba, which included most of South and Southeast Congo.

These tribes represent various stages in the settlement of the Congo area. Although the peoples of the Central and South Congo may be considered Bantu, and thus have been moving through this section for thousands of years, the Sudanese tribes, certainly, are relative late-comers, carrying with them many of the ideas and customs of Arabian Islam. In addition, the tribes near Tanganyika have suffered the raids of slavers and ivory hunters since long before the time of the Arabs, and have absorbed many cultural conceptions of the East and North. The BaKongo, near the mouth of the Great River, have been invaded time and again by fortune hunters of the North, Islam, probably, and of course the portuguese and other Europeans.

But, despite these many diversified influences, the tribes of the Congo are remarkably

homogeneous, showing relatively few differences in musical culture, at least. As a very broad, general statement admitting of many exceptions, it may be said that most of the cultural elements which are not the same between various tribes are due probably to climatic and topographical variations rather than any basic dissimilarities within the peoples themselves. A good example of this is provided in the case of the buffalo or cow horn. Most of the Congo is unsuited to the raising of domestic animals. Thus they may be found only toward the regions of the grasslands of the South and Southwest.

The spreading of new cultural ideas may be transmitted from one locality to another. Evidences of this may be seen in the distribution of the native harp which, apparently, is patterned after the ancient Egyptian type. That which is most like the original may be found among the Sudanese, which is to be expected, since they are near the outer reaches of the ancient empire and represent the last tribes to have arrived from the north. From here the harp-form seems to spread down through the affluents of the Congo to the mouth of the Congo itself, where many examples may be found which, however, are somewhat more primitive than the Mangbetu types (apparently

retrogressions).

Thus it may be said that the instruments of the Congo present a strange mixture of elements indeed. Many have been borrowed from neighbors or have been brought in during the course of age-long wanderings from other parts of the world. Some show a relative disinterest; so that the form is never improved over its original model. Some, in particular those which appear to be local developments of ideas brought in from elsewhere, show a high degree of mechanical ingenuity and inventiveness, especially in consideration of the raw materials from which these must be made.

Music <u>is</u> life for the African Negro, not just a part of life. It is the most adequate expression of an existence which is more than amply supplied with terror, mystery and travail. Through the wierd, almost supernatural tones of his instruments and the intricate, forceful rhythms which he derives from them, the Negro can lose himself and forget his fears, arming himself to face the dangers of the equatorial jungle.

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AMCB	Annales du Musée du Congo Belge, D Ethnographie et anthropologie, Bruxelles.
BSRB	Bulletin de la Societé Royale Belge de Geographie, Brux.
CME	Collection de Monographies Ethnographiques, Brux.
FS	Folklore Society, London
RAI	Journal of the Royal Anthropological Institute, London
SIM	Societé International de Musicologie, Paris.

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CARTE ETHNOGRAPHIQUE

CONGO BELGE — BELGISCH CONGO

Carte annexée au Volume I, Série 2,
des " Publications du Bureau de Documentation ethnographique
du Musée du Congo Belge ":
Les Peuplades du Congo belge, nom et situation géographique.

CARTE POLITIQUE ET ADMINISTRATIVE — STAATKUNDIGE EN BESTUURLYKE KAART

par
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