The Morphology and Distribution of Sub-Saharan Musical Instruments of North African, Middle Eastern, and Asian, Origin

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This paper offers a preliminary survey of those instruments, in regular use in sub-Saharan Africa,* which may have been introduced by Arabs, or from Asia by other intermediaries. The two principal areas of contact have been the Southern edge of the Sahara, from Senegal to the Nile, and the East African Coast, from present-day Somalia South as far as Mozambique. Arab caravans are known to have crossed the desert from the eighth century onwards and it is now thought that 'salt for gold' expeditions to the Western Sudan antedate the Arab conquest of North Africa (Bovill, 1970, p. 69). On the basis of glottochronological evidence, a date of A.D. 500 has been advanced for the peopling of Madagascar by Malayopolynesian speakers (Dyen, 1965; McLeod, 1977), and it may be assumed that contact was also made with the East African coast at the same period. Hornell (1928 & 1934) and Grottanelli (1947) have advanced detailed evidence of the presence on the East Coast of items of material culture that seem to have been imported from the general area of Indonesia at some time in the past. There is no irrefutable evidence that Chinese vessels reached this coast before the great expeditions of the Ming dynasty (1368–1644), but Filesi (1972) presents circumstantial evidence of trading-voyages as far back as the middle of the Han dynasty (first century A.D.). There is no absolute dating for Arabian, Persian, and Indian,

* Definitions of regional terms adopted in this essay (Map, pp. 186, 7):
'Sub-Saharan Africa' includes all the countries south of the desert, including Southern Sudan, but excluding Ethiopia.
'West Africa' refers to sub-Saharan West Africa, as far as the frontier of Gabon.
'North Africa' refers to all countries on the Mediterranean littoral, while 'the Maghreb' is retained for Algeria, Morocco, and Tunisia.
'The Western Sudan' refers to the Savannah regions of West Africa, including N. Cameroun, Chad, Mali, S. Mauretania, Niger, N. Nigeria, Senegal, and Upper Volta.
'Sudan' refers only to the nation state of that name.
'The East Coast' includes Kenya, N. Mozambique, Somalia, Tanzania, and Zanzibar.
Peoples and localities mentioned in the text are marked on the map.

contacts with the coast, but the author of the 'Periplus of the Erythraean Sea' (second century A.D.) found trading ports already well established, up and down the littoral.

It is my intention to omit discussion of two very controversial areas: the extent to which the musical instruments of Ancient Egypt have diffused into sub-Saharan Africa, save where it appears that such instruments were transmitted by the Arabs; and secondly, the thesis of A. M. Jones (1971) that certain instruments and musical practices found today in West Africa were introduced by Indonesian mariners who had rounded the Southern tip of the continent. These topics will be reserved for a later publication.

It must be emphasized that many of the similarities noted, and connections outlined, in the course of this paper are by no means to be regarded as proven, but are rather offered as hypotheses that may or may not prove to be of value in the light of further evidence on the distribution of musical instruments.

'HSN' refers to the numbers assigned to musical-instrument types in the classification of Erich von Hornbostel and Kurt Sachs (Baines & Wachsmann, 1961).

I. Idiophones.

1. *Concussion vessel-clappers* HSN 111.14

Linked, iron, one-hand clappers are found on the North African coast between Morocco and Tripoli. A pair of domed, iron, cymbal-shaped discs, thirteen centimetres in diameter, are joined by an iron trough, seven centimetres long, and two of these clappers are linked by an iron ring that passes through the edge of one of the discs on each clapper. In use, this ring is at the base of the clapper. Cord-loops pass through a pair of holes in each trough, and through these thumb and fingers are passed, allowing the two halves of the clapper to be clashed together. The interruption of the rims of the cymbals by the trough means that they cannot vibrate freely and thus the instrument acts merely as a clapper (Plate 12).

A comprehensive review of the occurrence of this instrument is found in Anderson (1971). Terms for it are: *qarqaba* or *qarabib* (Arabic), *tiqerqawin* (Berber), and *chakchaga, tjaktjaka, tsaqtsâqa* – these latter are terms used by the players, who seem to be exclusively Negroes of Western Sudanic origin. Hause (1947) suggests that the last term derives from the Turkish *shaqshaq* or *ṣaqṣaq*, which refers primarily to a conjugate-clapper rattle used by children, but is also used for a type of hinged castanet found in Istanbul (Picken, 1975; 10, 41). This seems reasonable in view of the Ottoman occupation of the North African coast during the sixteenth century. Among the Hausa, who call it *sambani*, the same instrument 'is always played by women for semi-religious songs on the occasion of major and some minor religious feasts' (Ames & King, 1971). The only structural difference is that instruments sometimes have pendant, rattling rings hung from their edges – a characteristic transformation reminiscent of the rattling plaques attached to a

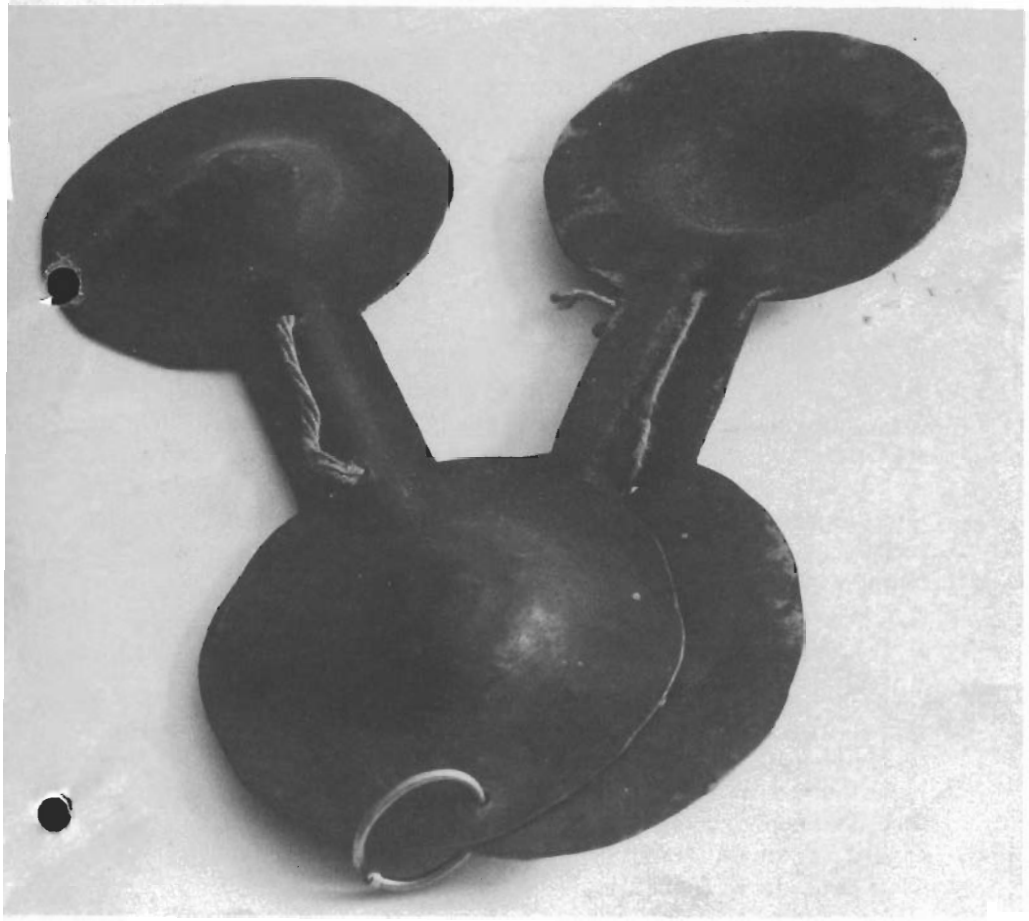


Plate 12 A pair of *qarqaba* from Southern Morocco (p. 156). Overall length of each clapper 33 cm. (author's collection). Photographs for Plates 12-16 were taken by Michael Gilchrist.

wide variety of instruments in the Western Sudan. The explanation of the term *sambani* may be, as Anderson suggests, that the instrument was connected with the '*ba-sambani*', a term referring to the slaves of Arab traders. It is curious that the *sambani* are the preserve of women, since, in Tunis and Tripoli they are used by male Hausa for bōri rites, usually performed, South of the desert, by women.

It seems likely that these concussion-vessel clappers originated in the Maghreb because relatively large amounts of iron are required for their construction. South of the desert, slaves, or women, would probably not have had access to iron in sufficient quantities to use it in this way for making an instrument. The similarity of these clappers to another type of clapper, the *schenachek* or tong-cymbals, widely used in the Maghreb, suggests that these may have been a model for the construction of the *qarqaba*. Tong-cymbals have probably always been confined to urban centres, since the manufacture of brass cymbals is a specialised process. Iron clappers may therefore have arisen as a rural, or 'poor man's', imitation of these.

2. *Wooden plaque-clappers* HSN 111.12

Women of the Bozo, a people living in Mali, on the Niger, around Mopti, use wooden plaque-clappers, *tube*, with elaborately carved, diamond-shaped blades, and cylindrical handles. Such clappers were noted at the oasis of Siwa in the 1930's (Schiffer, 1936) and are very probably related to the diverse forms of plaque-clappers of Ancient Egypt (Hickmann, 1956). The wooden, rectangular plaque-clappers of South-Eastern Nigeria are known to be a recent phenomenon (Echezona, 1963).

3. *Split-bamboo clapper* HSN 112.3

The Tanala of Madagascar use a clapper made from a tube of bamboo, split down the long axis for about half of its length. The two halves are separated by a transversely placed peg, attached to a cord. When the peg is pulled out the two half-cylinders come together with a crash. The similarity of this instrument to clappers of the Malayan archipelago led Sachs (1938, pp. 65 and 75) to list it with instruments of 'Malayan' origin. (For original description, see Linton, 1933.)

4. *Bamboo tubes suspended in a frame* HSN 111.232

André Schaeffner (1936, p. 102) was the first to suggest that multiple-tube frame-rattles of Madagascar and South-East Asia were the origin of the Javanese *anklung*. The Malagasy instrument normally has six bamboo tubes suspended from a transverse bar passing through one end of each tube. The tubes strike against another bar, placed transversely, about 30 cm below the first. They are sounded by the wind or, if the wind fails, by pulling the end of a long, attached cord, and are used to frighten birds from crops. Although the tubes have the same length externally, the internodes lie at different heights,

so that they sound at different pitches. It is not known whether they are tuned. Such instruments also occur in 'Indo-China', according to Schaeffner (1936, p. 102) but no source for this information is given. Kunst (1949) describes a Javanese instrument, possibly related to the Malagasy bird-scarer: an internode of bamboo is cut across obliquely, so that a hollow cylinder terminating in a tongue-shaped projection remains. A set of such tubes is tuned and suspended from a wooden frame, and sounded by striking with wooden-headed beaters. This device is known as *anklung* in Banyuwangi (East Java) and as *gratang* in Bali. The Banyuwangi instrument illustrated by Kunst has thirteen such tubes, hanging in an upright frame. At what point the well-known *anklung* of Java and Bali, with its tuned tongues, was developed is not clear; but it is reasonable to suppose that the Malagasy instrument derives from simpler prototypes, such as those described above.

5. *Struck bamboo log* HSN 11.23

Long, bamboo logs, either laid on the ground, or supported in the hands, or on short forked rests planted in the ground, struck with short sticks, by smaller or larger groups of performers, are very widely found in East and Central Africa. Their known distribution is: Cameroun, Congo, Equatorial Guinea, Gabon, Ghana, Kenya, Madagascar, Nigeria, Uganda, Zaire and Zambia. With the exception of Ghana, this pattern suggests that the instrument spread from the East Coast. This is compatible with its widespread occurrence in the Far East. Sachs (1928, p. 14) listed a number of examples, including South Celebes and the Semang. Since that time there have been some new reports. Dupaigne (1975) shows a struck log of green bamboo among Cham groups in Kampuchea. Here the log is laid on the ground and struck with short sticks by three to six players, most often female children, on the occasion of sacrifices to the buffalo spirit. Yupho (1961) describes the Thai *grò·ng* or *krong*, a section of bamboo, one to two metres long, resting on wooden supports a few inches above the ground. It was played by one or several players, particularly by young people, to celebrate the old Thai New Year.

Additional support for the hypothesis of a South-East Asian origin for this instrument is provided by the Malagasy terms, which seem to have Austronesian roots, with possible exception of the Antsohihy alternative name *kimbolo* (Sachs, 1938, p. 1). If the instrument indeed entered the continent via the East Coast, its presence in Mozambique would be predictable. Our knowledge of the musical instruments of Mozambique is so limited, however, that this question cannot at the moment be settled.

6. *Leg-xylophone* HSN 112.21.2

Leg-xylophones are widely distributed in Africa, having been reported in Guinea, Ivory Coast, Liberia, Malawi, Mali, Mozambique, Togo, Upper Volta, Zambia, and Zimbabwe. They are played, for amusement only, by women, children, herdsmen, or crop-minders. The Malagasy instrument is

remarkable in that it is played by women in pairs. This led Sachs (1938, p. 75) to regard the instrument as an introduction from South-East Asia, where he had already demonstrated its widespread occurrence (Sachs, 1928 p. 104). A contributory reason for this assessment was the notion that the instrument was carefully tuned. However, further investigation by McLeod (1977) has indicated that 'tunings show no conformity to a centralised concept or pattern' and that 'tunings are indistinct'. If this is so, then the instrument follows more closely the pattern of mainland Africa, where the keys are merely graded in size. We may agree with McLeod there is no longer reason to postulate an Indonesian origin for this instrument. There is no reason, however, to accept her suggestion that the present-day Malagasy instrument is a 'vestigial survival' of a more complex instrument, imported by ancestors of the present-day inhabitants of the island. It seems more likely that the instrument was brought over from the mainland; and that its Malagasy form was indigenously evolved.

7. *Banana stem with raised, clattering tongues*

This instrument is made from a green, banana-leaf stem with three tongues liberated from the surface with a knife. The hand is drawn along the stem and the tongues clatter against it. The instrument only works while the instrument is in a moist state. It has been reported among the Luba of Southern Zaire (Centner, 1962), who call it *kipuba*, and among the Ngangulu of Congo-Brazzaville (Kleipzig, 1972). An exactly similar instrument has been recorded in Malaysia (Specimen No. 77.421, Museum of Archaeology and Anthropology, University of Cambridge. Made in Kuala Lumpur by a kite-maker from Kelantan for Dr L. E. R. Picken in 1972). The details of manufacture of these examples being similar in every respect, it is difficult to avoid the conclusion that they are related historically. Genetic evidence presented by Simmonds (1966) establishes that the banana was first domesticated in South-East Asia, and that the African varieties are introduced cultivars, presumably another legacy from the Indonesian navigators who originally colonised Madagascar. That the instrument has not been reported more widely may be due to its ephemeral nature.

8. *Iron struck-tube* HSN 111.231

Chottin (1932) illustrates an unusual struck-tube used by the Berber Chleuh of Southern Morocco. It is simply a short, open-ended, iron tube, laid on a slipper, and struck with two iron sticks as part of a dance accompaniment. Its name is given as *naḳus* – a common Arabic term for bell. Iron struck-tubes, *loyo*, are used by women, in Senegal and the Gambia, for song-accompaniment. As iron struck-tubes are not otherwise reported from sub-Saharan Africa, it seems possible that these occurrences are connected. It would be of interest to know whether the black communities of Southern Morocco also use this instrument.

II. Membranophones

1. *Bowl-drums* HSN 211.11

Soderberg (1956) maps the distribution of bowl-shaped drums in Africa and shows that these are present virtually all over the continent, except in Angola and Namibia. The manner of fixing the head is not specified, and for that reason I doubt that there is any connection between a majority of the occurrences listed. There is however, one type of kettle-drum found in the Western Sudan, which is indubitably of North African origin. These are large kettledrums, with bronze or wooden shells, played in pairs with heavy wooden beaters, mounted on camel or horseback, and used in the music of Islamic courts. They are described by Ames and King (1971) for the Hausa, who call them *tambari*. They are normally half a metre in height, with the head lapped over an iron hoop of the same diameter, and laced to an iron ring, looped over the base of the drum. Such drums are frequently illustrated in medieval depictions of court life in North Africa, and were associated then, as they are today in the Western Sudan, with the classic Islamic court-ensemble of shawm, long trumpets, and drums. Further East, in the Sudan, Robinson (1932) records bowl-drums with copper shells, laced in a fashion similar to those of the Hausa, called *nahas*. The drums used on horseback by the Bashi-Bazouks were markedly conical in shape, however, and it may be that the *nahas* are related rather to the small, paired bowl-drums of North Africa, the *naqqara*. Certainly this term gave rise to the Ethiopian *negarit* (Powne, 1968 p. 12/15): large kettledrums, mounted on horseback, and beaten during imperial processions. The skin was often an entire animal hide, laid over the drum, and sewn into place. Powne says that it was 'tensioned latitudinally around the middle of the body' but it is not clear what this means. However, the *negarit* do not form part of an ensemble with shawm and metal trumpets, so the process of transmission in this case may well have been more complex. Such large drums seem not to exist now North of the Sahara; but smaller types, with a single head laced to a ring at the base, are still found in the Maghreb. Under the name *naqqara*, they are used in pairs and seem to have given rise to the Medieval European *nakers*. Both in pairs and singly they are widespread in West Africa, and are normally found in association with Islam. They have been reported from Cameroun, Chad, Dahomey, Guinea, Mali, Niger, Nigeria, Sierra Leone, and Togo (Plate 13). Single bowl-drums are also found among the Moors and the Tuareg, but the practice of using them in pairs is probably a direct borrowing from the Arabs.

2. *Pegged bowl-drums* HSN 211.11.7

Kirby, (1968, p. 272), following Hornbostel, noted the similarity between the ornamental handles of the Venda *ngoma* (a large, closed, pegged bowl-drum), referred to as 'the frog's knee' or 'Mrs Frog', and the four frog-figures soldered to the surfaces of certain bronze drums of the Malay archipelago. It should be noted, however, that the Venda apply an elaborate symbolic

Plate 13 Pair of bowl-drums from Northern Sierra Leone (p. 161). Diameter of heads 19 cm. (author's collection).

terminology to the various parts of the drum (Kirby, 1968, p. 36), and none of their other terms, such as 'the egg of an ostrich' (for the shell) appears to have any South-East Asian counterpart. This suggests that the association with frogs in both areas is no more than coincidental.

3. *Hourglass drums* HSN 211.242.1–81

The double-headed hourglass-drum, with a lapping ring on each head, and continuous Z-lacing passing between the two rings, is one of the most characteristic drums of West Africa. It is held under the arm in order to control the tension of the lacing, and thus the pitch of the head. It is struck with a single, knobbed, curved, wooden beater. In areas of West Africa where tonal languages are in use, these drums can imitate the melodic pattern of speech-contours and truly be said to 'speak'. Hourglass-drums of various kinds have been in use in India from the second century B.C., and Marcel-Dubois & Auboyer (1941) review evidence for their presence, both geographical and chronological, from that period up to the present day. The map (ibid., p. 226) implies that the hourglass-drum made its way to Africa; but the text includes no discussion of the mechanism of transmission. The correspondence in details of construction is close (compare, for example, their illustration 4 on p. 65) but in the absence of further evidence it would be hazardous to claim any connection between the Indian and African forms. Much has been made, however, of similarities between the styles of Meroitic reliefs and those of ancient India (Arkell, 1951, and much subsequent discussion in the journal, *Kush*), and the depiction of Indian elephants at Meroe suggests there was some contact between the two. If such a drum should appear on a relief at Meroe, the hypothesis would have to be taken more seriously.

4. *Double-headed, barrel-shaped drum, beaten with three sticks* HSN 211.222

Sachs (1938) cites reports from several parts of Madagascar of a double-headed, barrel-shaped drum, suspended horizontally from a frame. One end is struck with one beater, the other with two. No details are given of the manner in which the heads are fixed to the barrel, but it seems likely that this instrument is related to similar drums reported from the Celebes (Kaudern, 1927, p. 286), and from the Burmese Kachins (Sachs, 1917, illustration 24, Taf. 9). The Kachin drums have long, tubular barrels and laced heads, whereas those in the Celebes are barrel-shaped and have pegged heads, which suggests that the Malagasy instrument may be of this type.

5. *Double headed, conical, laced drum* HSN 211.252.8

Hazolahy is the most common Malagasy term for a slightly conical drum with two lapped heads, laced by a cord that zigzags between them. The strings are caught in notched, wooden tuning-blocks, and form a Y-pattern on the barrel of the drum. These drums are suspended at the waist of the performer

and played with a combination of single stick and hand. They are always played in pairs of instruments of slightly differing sizes. A similar drum, *selo*, is played by the Zigua and related groups in coastal Tanzania, but in this case the tuning-blocks are replaced by dried, spherical fruit-shells (Donner, 1978). Sachs (1938, p. 76) considered these drums to be related to similar drums found in Malaysia, although he nowhere illustrates a drum that corresponds, formally, to the *hazolahy*. As this word appears to have Austronesian roots, however, and since the distribution of the drum itself suggests that it is an introduction, we may accept this. It would be interesting to know if the South-East Asian area affords any more directly analogous instruments.

6. *Single-skin frame-drum* HSN 211.311

1. *Circular frame-drums*

Circular frame-drums are found all along the coast of North Africa, made from hoops of wood, with a single head, glued on or nailed. Snares are often fixed across the inner surface of the skin, particularly when the instrument is used by Arab women. Instruments used by Berbers (more commonly men) have improvised external snares or no snares at all. The term most commonly recorded in the Maghreb is *bendir*, while *tar* is favoured in Egypt and the Sudan. Where these instruments are used South of the desert, their connection with Islam has been retained. Anderson (1971, p. 156) describes the use during celebrations in Uganda, of sets of *mataali* – circular frame-drums – by Islamic fraternities. Similar drums are used by the Hausa in West Africa under the name *talle*, to accompany praise-songs, and in medicine-vending (Ames & King, 1971). Unlike the North African examples, they are struck with a hooked stick, such as that used on the hourglass drum. *Tar, mataali*, and *talle*, may well all be versions of the same word, given the common tendency in sub-Sahran Africa to interchange 'l' and 'r'.

Frame-drums are also found all along the East African coast, normally as tambourines, with circular, tin-plate jingles, threaded on wires fixed in the frame of the drum. These are restricted to Somali and Swahili communities and form part of a common pool of instruments used by Islamic communities in the Indian Ocean area. A pegged, circular frame-drum is reported by Kirby (1968, pp. 41–44) from the Thonga people of the Northern Transvaal and the adjoining part of Mozambique. These drums, *mantshomane*, are used by groups of women in exorcism, a detail reminiscent of the *sar* possession-cults of Somali women. Frame-drums normally accompany ecstatic female rites in North Africa, and this may also be the case on the East-African coast. It would be of interest to know whether the Thonga borrowed their frame-drum from further East, because Sachs (1938, p. 26) describes a pegged frame-drum, *amponga tapaka*, from the Vohémar district of Madagascar. He notes that similar frame-drums have been reported from the Ndau and Bashilengwe of Mozambique. It seems likely, particularly in view of the work of Kent (1969) on contacts across the Mozambique channel, not only that these two occurrences are connected, but also that transmission took place in the fairly recent past. Kirby's discussion makes plain that the drum was still spreading

in the 1930's. Whether these frame-drums are connected with the tambourines in use further up the coast must remain a topic for further enquiry.

Another type of Malagasy frame-drum is made from the circular neck of a broken pot. A net of laces pass from the skin to meet in a star on the underside of the drum. Sachs compares this to a toy drum in use at Kampong Jalor, Malaysia, described by Balfour (1904). However, drums made from broken pot necks are found in various parts of Africa. Boone (1951) illustrates a drum from the Tumba people of Western Zaire almost identical with the Malagasy instrument. A similar drum has been recorded in Dahomey (Duvelle, 1963), and this may be cognate with the Yoruba *sakara* (Thieme, 1969), a frame-drum in which the skin is attached by means of a row of pointed, wooden sticks that pass through it. In an article on frame-drums, Schaeffner (1943) describes similar drums, with glued heads, made by children among the Bata of the Cameroun, and Béart (1955) describes further examples of such glued frame-drums in West Africa. I see no reason for not assuming such drums to be independently invented. The neck of a broken pot is not otherwise a useful item, and if it were decided to convert it to a frame-drum, lacing and glueing would be the most obvious ways of attaching a head.

2. *Quadrangular single-skin frame-drums* HSN 211.311

Schaeffner (1964) discusses the origin and distribution of a particular type of rectangular frame-drum found in West Africa. Essentially, the frame is built up from planks nailed together, and diametral cross-bars are placed inside to give it rigidity. There is a single pegged head, struck with a flexible beater. Such drums have been reported from Southern Ghana (Nketia, 1963), coastal Dahomey (da Cruz, 1954), Bariba of Northern Dahomey, Baga and Susu in the Republic of Guinea (Schaeffner, 1964), Teke of Congo and Zaire (Soderberg, 1956), and at Ouesso on the Congo/Cameroun border. I have seen these drums in Liberia, Mali and Upper Volta. They are, moreover, used by the Yoruba in Southern Nigeria (Thieme, 1969). Some of the Yoruba instruments are notable for an additional refinement: the presence of an inner frame that presses against the skin so as to tighten it, the pressure being controlled by wedges inserted between the inner and outer frames.

Hickmann (1951) reports a surviving rectangular frame-drum from the New Dynasty period of Ancient Egypt. This instrument was furnished with nailed skins on both sides and had incurving sides, an unusual constructional feature, compared by Schaeffner with a type of Dahomean divining-board. It seems unlikely that the Egyptian and West African instruments are historically linked, especially in view of their morphological dissimilarities. There may, however, be a curious indirect link. In the Maghreb there is a small, rectangular, double-headed frame-drum, *duff, deff, daff*, with the two heads sewn to one another along their lines of contact. It appears to be used principally by Arab women. During the Moorish era in Spain and Portugal, a drum with same name, *daf*, developed, again played by women, but consisting of a nailed-together rectangular frame, with a single, nailed head; it is still used in Western Spain and in parts of Portugal. This raises the possibility that the rectangular frame-drum was introduced to sub-Saharan Africa by the

Portuguese. If Stuhlmann (1910) is correct in stating that the construction of wooden frames by means of glued, or nailed, morticed joints is not part of the repertoire of traditional African technology, then this instrument would most certainly be an introduction or a recent invention. Da Cruz (1954) thought it had been introduced by Brazilians, and this is certainly suggested by the name given it in Dahomey and Southern Nigeria, *samba.* In support of this suggestion of an introduction or recent invention is the observation that it is nowhere central to the ceremonial life of the peoples who use it. In Liberia, I saw it in use at a 'dancing church' in one of the ecstatic, semi-Christian cults, frequently to be found on the West-African coast. In Congo, Ghana, and Guinea, it is used in entertainment dances. This suggests that it is transmitted by institutions that cross ethnic boundaries, such as migrant labour and Christian churches. As Schaeffner observes, if the drum is of Portuguese origin, then it must have been introduced at quite an early period, if its presence is to be accounted for among the Baga, who experienced little colonial contact until the present century. Perhaps a more comprehensive knowledge of the terms applied to this drum would afford a clearer picture of its origins.

The use of snares

The use of snares is confined to Islamized populations inhabiting the Southern edge of the Sahara. Although snares are presently found on drums not based on North African models, it is reasonable to suppose that the practice came from North Africa.

III. Chordophones.

1. *Heterochord gourd-resonated stick-zither* HSN 311.221

Ankermann (1901, p. 7) illustrates an unusual, perhaps unique, instrument, used by the Zaramo of Tanzania. It consists of a straight stick, with a smaller stick projecting from one end at right angles. A string passes from the tip of the smaller stick to a point about two-thirds of the way along the main stick, where it passes under a noose that both divides the string and attaches a hemispherical gourd to the bar. The string is then wound round a small, projecting peg, fixed into the far end of the straight bar. The instrument is tuned by sliding the gourd along the bar, as are most of the African, divided musical-bows. Ankermann adds that it is played with a pair of light sticks. This instrument recalls the Cambodian *sadieu*, first illustrated on the Bayon at Angkor Thom in the fourteenth century (Marcel-Dubois & Auboyer, 1941, p. 215), the only difference being the absence of a tuning-peg in the Zaramo instrument. The Zaramo inhabit the hinterland of Dar-es-Salaam, so that they would be in a good position to borrow such an instrument from Indonesian mariners reaching the coast. In passing it may be noted that divided musical bows with gourd-resonator (Sachs's *Kurbisschlingenbogen*) are confined to East, Central, and Southern Africa, and this area is roughly co-extensive with the area of expansion of the Eastern Bantu groups. It is therefore possible that the idea of modifying the ordinary mouth-resonated,

musical bow (found all over sub-Saharan Africa) to yield a gourd-resonated, divided, musical bow, derives from a South-East Asian model. Two caveats must here be entered: I have been unable to see such a zither as Ankermann describes, either in use, or in the Museum collections in Berlin or Dar-es-Salaam, although it may be the *gombo* described imprecisely by Swantz (1970), in her ethnography of the Zaramo. Ankermann's illustrations are by no means always accurate, and we may be dealing with the more ordinary type of musical-bow, or alternatively, the reconstructed fragments of a stick-zither. Moreover, as far as I can discover, this type of musical-bow is confined to Cambodia, Thailand, and Laos, and its range does not extend to the Indonesian islands, where its presence would be more significant.

2. *Stick-zither* HSN 311.221/2

The stick-zither of Eastern and Central Africa has been described in detail by Jones (1971). Briefly, the string-bearer is a flat bar of wood, laid edge-on over a hemispherical gourd, attached to one end of the bar by a loop of wire. Between the gourd and the bar is a small conical collar made from the neck of a gourd. At the other end of the string-bearer, three raised studs are carved and project both above and below it. There is no special device for tuning the strings, whether they pass along the top of the string-bearer – in which case the projecting studs act as frets, or to one side of it – when they are sounded as a drone. The strings are simply tied to the end of the string-bearer which, in many examples, is bifurcated. On the mainland, the number of strings varies between one and six (cf. the many specimens described by Laurenty (1961) and Knosp (1968)), two or three being the most common number. The distribution is: Burundi, Kenya, Madagascar, Malawi, Mozambique, Rwanda, Sudan, Tanzania, Uganda, Zaire, and Zambia. The most common term for it is *zeze* or *sese*, which Sachs (1938) correctly identifies as of Swahili origin, although it is evidently derived from a Bantu root referring to stringed instruments in general. The Gogo, for example, use a large arched harp known as *izeze* (Hyslop, n.d.), and the Central Tanzanian Sandawe call their musical bows *zeze* (Tenraa, 1963). The stick-zither has only recently spread into Central Africa, a fact demonstrated by the comments of numerous administrators' reports collected in Knosp (1968) (see also further references in de Hen, 1960, p. 151), probably having been transmitted by Arab slaving-caravans of the nineteenth century. This view is supported by the instrument's uniformity in construction and terminology in this area. For Zaire, de Hen (1960) records forty different peoples playing the stick-zither, of whom at least thirty use some variant of the term *zeze*.

It has commonly been suggested that this instrument originated from the stick-zithers of the Celebes (Kaudern, 1927; Jones, 1971). One potent argument for this is the instrument's widespread use in Madagascar. It is, however, an exaggeration to say, as does Jones (1971), that the stick-zither is found in 'identical shape all over Madagascar'. Sachs (1938) notes two important features of detail in Malagasy instruments, not found on the mainland: first, the use of a second resonating gourd, halfway along the

string-bearer; secondly, the use of tuning-pegs as string-tensioners.* A Betsileo instrument, for example, illustrated and described by Duvelle (1965) has four raised frets, and nine metal strings, of which four are fretted melody-strings, and the remainder are lateral drone-strings lying in a plane at right-angles to the melody-strings. The strings are tuned by means of pegs, fixed into a true peg-box at the end of the string-bearer. From McLeod (1977) we learn that up to eleven strings have been recorded, while in the South of the island, among the Bara, the instrument has become, or remained, so simple in construction that performers only produce two distinct tones. This suggests that it has converged with its namesake, the *jejo*, a divided musical-bow. These divergences in morphology within a restricted area, suggest that the instrument has been longer established in Madagascar than on the mainland. The first reference to the Malagasy instrument is Cauche (1642), antedating by a couple of centuries any reference to the stick-zither on the East African coast. Moreover, apart from the Swahili term *zeze*, there is an indigenous Malagasy term, *lokango voatavo*, which means 'instrument with a calabash'.

McLeod (1977, p. 199) concludes that the source of the Malagasy instrument is mainland Africa. The evidence presented above leads to the conclusion that the process of transmission was complex, but that, if anything, the reverse was the case. Returning to the Celebes stick-zithers, we may now observe that there are two features of the African stick-zithers which they do *not* have: the three studs, both above and below the string-bearer; and the spacing-collar made from the neck of a gourd. In the Celebes these collars are made from bamboo or coconut. The Sori people of India have a stick-zither, described by Sitapati (1933), and pictured by Schaeffner (1936, Pl. XIV), which does indeed have a gourd spacing-collar, exactly like the African instruments. It is, however, a bamboo round-bar zither, with four frets built up on the string-bearer; but it also has an obliquely-angled piece of wood, inserted into the string-bearer at the end furthest from the resonator, which acts as a string-holder. This is a common feature of Malagasy instruments, described by Sachs (1928, p. 50) as 'fourche coupée' (by analogy with the bifurcated end of many instruments). Furthermore the Indian instrument has one string that passes over the frets, and another drone-string, placed laterally – the most common arrangement on instruments of the African mainland.**

Thus the African stick-zithers seem to combine elements both of Indian and South-East Asian stick-zithers. It seems clear that at least one part of the Malagasy instruments belongs to the oldest stratum, that is, they were brought over with the migration of the original inhabitants. In all probability, this type of instrument did not have tuning-pegs. The instrument was probably transmitted then to the mainland through the medium of the Indian-Ocean trade. At this point it may have picked up features reminiscent of the Indian instruments, since many of the traders would have had

* This feature has recently appeared on mainland specimens as well.

** In his original sketch of the Sori stick-zither, Sitapati (1933) shows a second resonating gourd, half-way along the string-bearer, just as in the Malagasy examples illustrated by Sachs (1938, Plate IV, B) – a feature conspicuously absent from the Celebes stick-zithers.

experience of the more or less sophisticated stick-zithers of the sub-continent, and instruments made on the East-African coast would reflect this. In particular, the use of the neck of a gourd as a spacing collar, and tuning-pegs, would probably have been introduced at this point. The instrument in this form could then have been re-exported to Madagascar and would then have affected the construction of stick-zithers on the island itself. This would explain why Swahili and Austronesian terms for the instrument co-exist. A reflection of the possibility that the stick-zither was re-imported into Madagascar is contained in the term noted by Sachs in the West of the island, namely *dzedzivoatavo* – a hybrid conjunction of Malagasy and Swahili terms.

3. *Spike lute* HSN 321.31

The terms *gembri, gimbri, gimbiri, gnbri,* and *gumbri,* widely used to refer to North African folk lutes, actually conflate two Arabic words, each of which designates a distinct musical instrument. In his article: 'A North African folk instrument', Farmer (1931) illustrates both types and discusses the differences between them. The *gunbrī* is a large spike-lute, normally with three strings – though both two and four have been recorded – a rectangular, nailed-box body, and a cylindrical string-bearer. The table is of skin, and may be either laced, or pegged, to the sound-box. There is a high, footed bridge, something like the bridge on a European double-bass. The strings pass over the bridge and are looped around the toothed end of the string-bearer, which is accessible through a hole in the skin of the table. A gut, or leather, ring acts as the nut, and, in the examples examined by Farmer, the strings were tuned by means of nooses. Instruments tend to be hung with decorative fringes, cowrie-shell charms, and other items, probably of magical significance. They are played exclusively by Negro musicians, in particular for the accompaniment of dances, and are in use throughout the Maghreb.

The *gunībrī*, on the other hand, has a piriform wooden body, tuning pegs, and two (sometimes three) gut strings. The resonator is normally carved from a solid block of wood, although, according to Farmer, it may also be made from a tortoise carapace, a coconut, a gourd, or even of metal. Other features are similar to those of the *gunbrī*. The *gunībrī* is used by Arabs and Berbers, and is not normally decorated.

Farmer unreservedly connects the trough-lutes of the West African savannah with the *gunbrī*, and he refers to 'boat-shaped' lutes found in the Maghreb. It is not clear whether true trough-lutes exist North of the Sahara, or whether he is referring to the box-resonators of the *gunbrī*, which sometimes have curved backs. The exclusive association of the *gunbrī* with the Negro populations in the Maghreb suggests that it is a version of the trough-lute from across the desert, which has taken on certain features of the *gunībrī* by virtue of proximity. Trough-lutes of the savannah type, with resonators of a single block of wood in a waisted, naviform shape, were known in Ancient Egypt, first illustrated about 1300 B.C., and termed  , *gngnit*. Farmer compares this to the Dogon bridge-harp, *ginginou*, still in use in Mali; though it seems reasonable to relate it to *gunībrī*,

if it is permissible to omit the reduplicated 'gn'. No evidence suggests the persistence of this type of trough-lute on the North African Coast between that time and the present. Its wide distribution in West Africa indicates that it must once have been played throughout the area of the Western Sahara, and was possibly introduced into Ancient Egypt from Africa. After its popularity waned in Egypt and on the North Coast, the tradition was only retained South of the desert.

The position is altogether different with regard to the long-necked lutes with a bowl-shaped, or piriform, resonator. There are first depicted at the period of the Hyksos invasions (Fifteenth to Seventeenth Dynasties, 1730–1580 B.C.), and may therefore have been introduced by the invaders. The resonator was made from a tortoise carapace, and the strings were tensioned by means of tuning nooses. As such lutes are clearly depicted in Ptolemaic Egypt we may suppose that the modern *gunībrī* lies on a direct line of development from these earlier lutes. Farmer (1949) discussed a Byzantine mosaic of a long-necked lute, from the first half of the fifth century A.D., showing tuning pegs in use; presumably, tuning pegs were adopted on North African lutes soon after this.

Lutes with bowl-shaped resonators are less common than trough-lutes in savannah West Africa, but are distributed over a wide area, between Senegambia and Northern Chad. Within this area, two types of construction may be distinguished. Nikiprowetzky (1963) illustrates a lute, used by the Mawri people of Niger, with a resonator made from a nearly spherical gourd and with a pegged-skin table. The string-bearer passes through the resonator, and its projecting tip acts as a string-holder. A similar instrument, *ngulang*, is used by the Bana people of North Cameroun (Wente-Lukas, 1977, p. 256). The Bana also use a different type of bowl-lute, also reported by Nikiprowetzky from the Hausa-speaking Buzu in Niger, and with quite a different construction. The resonator is still made from a gourd, but the string-bearer, rather than transpiercing it, is laid across the open face of the sectioned gourd. It pierces the skin-table of the instrument, creating sufficient tension to hold it in position, after the manner of the Ancient Egyptian lutes (Hickmann, 1956, illustration 24). Strings pass over a bridge and are looped round projections on the end of the string-bearer, accessible through a hole in the table of the lute.

These constructional details suggest that this type of lute is either a skeuomorph, or an earlier version of the North African *gunībrī*. The use of tuning-nooses, and the method of keeping the string-bearer in place by passing it through the skin of the table, imply the retention of features of lutes in use in North Africa in the pre-Islamic era, and we may assume that it was transmitted across the desert in that period.

Lutes in which the string-bearer transpierces the resonator appear to be restricted to the region around Lake Chad. A morphological parallel of some interest is the Arab bowed lute, *kamanjah*, with a nearly spherical resonator, made today *either* from a hollowed block of wood *or* from a coconut shell, a pegged skin-table, and a string-bearer that transpierces the resonator, as in

the lute of the Mawri people. The number of strings varies between two and four. It is, however, a bowed instrument, and has tuning-pegs. But tuning-pegs are not in evidence before the fifth century, whereas the use of a bow to sound the strings of a lute does not date from much before the tenth century (Farmer, 1931, p. 75). The West African fiddle, *goge* (discussed in section 3.5), is clearly a relative of the *kamanjah*, but the possibility that this type of bowl-lute reflects an earlier stage in the development of the *kamanjah* should not be discounted.

4. *Necked bowl-lute* HSN 321.321

A necked bowl-lute with 2 to 5 strings, sometimes doubled, and a body carved from wood, or made from a gourd, has been recorded from the Majunga region of Madagascar (Sachs, 1938, Planche XV). The pegbox and fretted fingerboard make plain that this is an imitation of the ordinary short-lute of the Middle East. The name, *kabosa*, is likely to be a Malagasy version of Arabic *qubuz*, in turn deriving from the Turkish *kopuz*.

5. *Spike bowl-fiddle* HSN 321.311

Fiddles with a single, horsehair string are not very common in North Africa, except among negro groups; but their distribution South of the desert suggests that they were transmitted to sub-Saharan Africa by Moslem traders. The resonator of these fiddles is normally made from a hemispherical gourd, with a glued lizard-skin table. The cylindrical string-bearer passes through the resonator, and its emerging tip acts as a string-holder. The single string is tuned by means of a tuning noose. Among the Hausa known as *goge*, versions of this name have been reported from nearly every country in West Africa. Chottin (1932) illustrates an instrument used by the Moroccan Berber Chleuh, which evidently represents a transitional phase between the *goge* and the more sophisticated North-African bowed instruments. In this, the string, coming from the bridge, passes under a noose, looped around the string-bearer, acting as a nut, and thence to a large tuning-peg inserted in the side of the string-bearer. The curious positioning of the tuning-peg suggests that it has been added by analogy with the classical, bowed instruments, the *rabab* and the *kamanjah*, without the concomitant replacement of the nut made from a loop of cord, by a transverse, wooden nut. However, no instrument directly analogous to the *goge* survives among Arab and Berber groups North of the desert, although a single-stringed spike box-fiddle is used by Middle Eastern Bedouin. Its present form probably represents an early savannah-development of the bowed instruments introduced into North Africa in the ninth and tenth centuries.

6. *Spike box-fiddle* HSN 321.312

The sound-box of the Ethiopian *masenqo* is diamond-shaped, and there is a single horsehair string, tightened by means of a large, frontally inserted, tuning-peg. There is no nut, and the string passes over a bridge to the

projecting tip of the string-bearer, which acts as a string-holder. Powne (1968) states that the sound-boxes are 'sometimes square'. If this is so, then the instrument may be related to the Bedouin spike-fiddles mentioned in the previous section. The absence of a nut, and the use of a frontal tuning-peg, seem to be quite original, however, and the single horsehair-string argues a connection with the West African bowl-fiddles. It is worth noting that the *masenqo* has an almost co-extensive distribution with the *washint*, a four-holed, cane, end-blown flute. In Western and Central Sahara, the Tuareg are the primary exponents of the bowl-fiddle, and the only flute in use among them is the *sareoua*, a four-holed, end-blown flute, apparently morphologically identical with the *washint*.

The Analalava district of Madagascar preserves a single-string fiddle, *heravoa*, said to be similar to the Bedouin *ar-rabâb*; and *heravoa* may indeed be no more than a local version of this term (Sachs, 1938, p. 68). The instrument was once, apparently, much more widely used on the island to accompany epic-singing.

7. *Spike tube-fiddle* HSN 321.313

Fiddles with an open, tubular resonator, a pegged skin-table, one, two or three strings, and frontal tuning-pegs, are found widely in East Africa. Their recorded area of distribution is: Burundi, Kenya, Rwanda, Tanzania, Uganda, Zaire, and Zambia. Wachsmann (1953) offers evidence suggesting that the fiddle was introduced into Uganda in 1907, and probably gained popularity from its use by soldiers during the First World War. Among the Sandawe of Central Tanzania, Tenraa (1963) records that the tube-fiddle, *zogozogo*, was only beginning to become popular in the early 1960's. De Hen (1960) reports that the fiddle was introduced into Zaire from Uganda – implying that it is a very recent import. Such tube-fiddles are known both in India and South-East Asia; but the apparently recent introduction of the instrument makes more probable an Indian origin. Sachs (1928, Abb. 109, Tafel XV) illustrates a two-stringed tube-fiddle from India with the same organological features as the African instrument, apart from an odd-looking bridge.

A tube-fiddle of very individual design exists in Southern and Central Malawi. An example collected from a Chewa man, near Lilongwe in 1976, has a heavy, carved, wooden resonator in the form of a squat tube, closed at the base opposite the skin table, but with a large sound-hole in the side of the tube (Plate 14). The string-bearer is cylindrical, and passes through the resonator; its projecting tip acts as a string-holder. The single string passes over a bridge, and under a slack noose of cord that encircles the string-bearer and acts as a nut. It is then looped around a carved projection at the end of the string-bearer. The string is made of sisal, but is wrapped round with strips of dried maize-leaf at the bowing point. The bow is 'strung' with a rigid slat of cane, and in order for the instrument to be made to sound at all, it is necessary to apply moisture repeatedly to the bow, normally achieved by licking it. Werner (1906) noted that the string passed between the slat of cane and the arch of the

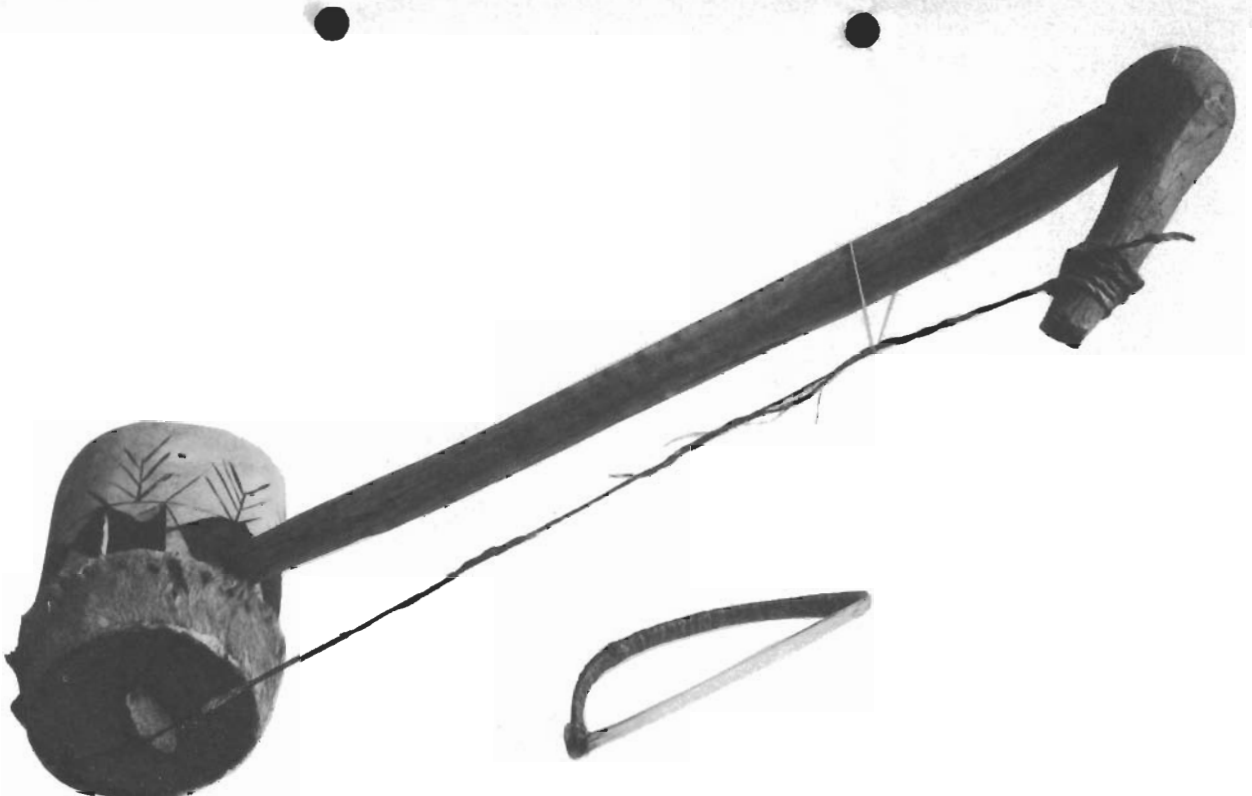


Plate 14 Tube-fiddle, *kaligo*, from the Chewa people of Central Malawi (p. 172). Overall length 68 cm. (author's collection).

bow, but I have not seen this feature. It seems unlikely, since the player would not then be able to lift the bow to his mouth to moisten it. The Chewa term recorded for this instrument is *kaligo*; but Werner notes the term *chimwenyumwenyu* on Likoma island in Lake Malawi.

These divergent features suggest the speculation that this instrument may be historically distinct from the more common type of East African tube-fiddle and be, instead, a legacy of the Chinese trading-voyages to the East African coast. Chinese half-tube zithers were 'made to creak' with 'a slip of bamboo moistened at the tip' (Picken, 1965). The *Yüeh Shu* (1101 A.D.) includes a description of a friction-sounded handle-lute, with the two strings sounded by a slip of bamboo passed between them. The traditional Chinese fiddles, *erh-hu* and *pan-hu*, share many other features with the *kaligo*, including the tuning noose that acts as a nut, and the wooden sound-box with a closed base. In the *Yüeh Shu* account, fiddles are illustrated with rotatable tuning-pegs; but Chinese *plucked* lutes had such pegs already in the second or third century A.D. – suggesting that if the *kaligo* is modelled on a Chinese prototype, the tuning-pegs have been replaced by a simple, carved projection. This is a very logical transformation in a monochord instrument of this type, since the single string can just as easily be tuned by moving the slack noose along the string-bearer.

In Northern Mozambique, there is a series of tube-fiddles that appear to be intermediate in structure between the Chewa instrument and the tube-fiddles of Kenya and Tanzania. Kubik (1964) reports that the instrument is used by the Lomwe, Meto, Makondo, and Nyanja, peoples. The Nyanja fiddle, *mugole*, has a resonator made from a gourd, and a frontal tuning-peg at the end of the string-bearer, but is in other respects similar to the *kaligo*. Despite the presence of a tuning-peg, the fine-tuning of the single string is effected by moving the noose up and down the string-bearer. Another divergent feature is the bow, strung with sisal, also the material of the principal string. From this, it is doubtful whether the fiddle would sound, since two lengths of sisal rubbed together do not produce a musical tone. It must be assumed that some feature has been omitted from the description. Kubik says (ibid. p. 81) 'the way of singing, particularly rich in timbre, intonation and in the rather rich melodic orientation, showed strong Arabic influence.' Though it may seem that an Arab origin should be attributed to the *mugole* fiddle, it then becomes more difficult to account for the divergent features of the Malawian *kaligo*. Kubik records the following terms for the fiddle in Northern Mozambique; *mugole* (Nyanja), *tagare* or *takare* (Lomwe), *chikwèsa* (Meto), *akanyembe* (Konde). Taken together with the Malawian terms *kaligo* and *chimwenyumwenyu*, it is surprising that such a diversity of terms should have evolved in so limited an area, unless the instrument has long been established. It is also curious that none of these words appears to derive from Arabic or Swahili roots. If we compare this situation with the stick-zither (Section III.2) – an instrument undoubtedly spread through the agency of the Swahili – we find that most terms for the instrument faithfully reflect the origin of the instrument, as far as the East

African mainland-area is concerned. Until more information on the fiddles of Southern Tanzania is available, it will be difficult to decide this matter; but the Malawian *kaligo* should be regarded as essentially separate from the tube-fiddles recorded further North; while the fiddles of Northern Mozambique represent, perhaps, a hybridization of the two forms.

IV. Aerophones

1. *Bamboo stamping-tubes closed at the lower end* HSN 413

Anderson (1977) discusses the distribution of Malagasy stamping-tubes, today confined to the Tanala, who use them in a dance, *dombolo*, apparently based on European military exercises. A monograph by DuBois (1938) recorded, among the Betsileo, stamping-tubes used in bundles, tied together with leather thongs. Anderson discovered that these were in fact a pair of bundles, each consisting of three, slender, bamboo canes, stamped on a small wooden platform. Formerly they were used to accompany mass possession-dances.

Stamping-tubes have been widely, but discontinuously, recorded in Africa. They occur in Ghana (Nketia, 1956), Dahomey, among the Duma (Rouget, 1947), and Kamba of Kenya in the last century (Lindblom, 1920), and among some kindred Tanzanian peoples (Sachs, 1928, p. 74). Their wide distribution across the world, and their simplicity of construction, argue that they have probably been independently invented on a number of occasions. Stamping-tubes in bundles, however, are extremely rare (no mention of these occurs in Sachs, 1928) and it is difficult not to speculate when they are found to occur also in the Solomon islands, among the Are'are people (Zemp, 1973). The Are'are also use the equiheptatonic scale which, we may agree with Jones (1971), is widely distributed in South-East Asia. What connection there might be between the Solomons and mainstream Malayan cultures, and whether the Malagasy and Are'are compound stamping-tubes hark back to some vanished common ancestor, must await further research.

2. *Whizzing-nut* HSN 412.22

Hornell (1938) suggested that there might be a connection between the whizzing-nut reported from the 'Wakissi' of the Rovuma area of Tanzania and those found widely in South-East Asia (Kaudern, 1927; Sachs, 1928, p. 95). The whizzing-nut operates on the same principle as the spinning-disc, which is widespread throughout the world, and is probably constructed by analogy with it. Soderberg (1956) reports the use in this way of a 'graine' among the Kongo at the mouth of the river Zaire; and Centner (1962) mentions a similar use of tubers among the Luba of Southern Zaire, as well as their use of fruit-shells as bullroarers. This suggests that we need not look outside Africa for the origin of this instrument.

3. *End-blown flute with fingerholes* HSN 421.111.12

End-blown flutes are found throughout the Arab world, both as the classical *ney* and as folk instruments, commonly sounded by pursing the lips and blowing against the rim of the pipe, held at an oblique angle to the body-axis. The bore of most modern *ney* is sufficiently narrow for them to overblow easily; but I was told, in Morocco, that a more archaic type was of a much wider bore, and this may imply that only the fundamental scale could be sounded. This was certainly the case with some Maghreb instruments examined, which may, however, qualify as folk instruments. In Africa, end-blown flutes are found along the Southern edge of the Sahara, from Senegal to Ethiopia. As Schaeffner (1943) has shown, not all African end-blown flutes are sounded in the Arab manner. It is likely that these variant techniques were independently developed. Nevertheless, end-blown flutes were common in Ancient Egypt; it is not necessary to postulate Arab intermediaries as the agents of their transmission. The similarities between the *sarewa* of the Islamic Tuareg, and the *washint* of the Ethiopians, suggest that end-blown flutes are very ancient in this area. Both of these flutes overblow, as presumably did Ancient Egyptian instruments – judging by their narrow bore. Nevertheless there appears to be an association between end-blown flutes, particularly those with wide bores, and Islam. A curious instrument used by the Salamat Arabs in the region of Lake Chad, has a central section made from a giant grass, with a brass bell and a mouthpiece joined to it by bulging, waxed joints, normally decorated with cowries. These flutes, *chila-chila*, have four fingerholes, and are used in sets of three as a dance-orchestra. Four-holed cane-flutes, sometimes with bells of animal horn, have been recorded in Cameroun, Chad, Mali, Mauretania, Niger, Nigeria, Senegal, and Upper Volta, with the possible addition of Ghana and Togo. No final statement can be made about the extent to which these flutes overblow, but examination of museum specimens suggests that many do not. Thus despite the early existence of overblowing end-blown flutes in North-East Africa, a tradition of wide-bored flutes, yielding only the fundamental scale, persisted in West Africa, and may indeed have spread as a result of the slave trade.

The presence of horn bells on some West African flutes is an interesting feature that recurs in Madagascar. Sachs (1938, p. 78) noted this, and further added that some specimens of Greek shepherds' flutes also had horn bells. He says that the Malagasy flutes with such bells are 'manifestement plus primitive', by which he means that they lack a dorsal thumb-hole and a chamfered embouchure. They are commonly known by the terms *sodina*, *soly* or *sody*. These flutes co-exist with end-blown flutes with six fingerholes, thumbhole, chamfered embouchure and without bells, closely paralleling the Arab *ney*. Although the names for the different types of flute are not distinguished, it seems that this flute may be known by the terms *sobaba* and *schebaba*, versions of Arabic *sabbâba*, applied to short, end-blown flutes. Sachs suggests that *sodina* and related terms may be related to Malayan *suling*, but says nothing further on this subject. Flutes with horn bells are certainly known in the Indonesian islands (Crystal, 1973).

This suggests the following speculation: The addition of horn bells to flutes was an old circum-Mediterranean tradition, and instruments recorded in Greece and the Western Sudan are all that remains of this. The Malagasy instruments with bells could derive *either* from the Arabs *or* from the Indonesian islands. If we assume that they are Indonesian in origin, we must then postulate that such flutes reached the Indonesian islands in pre-Islamic times. No more certain conclusions can be reached until more definite information on the construction and distribution of these flutes is available.

4. *Stripped-bark, end-blown flute* HSN 421.111.12

In East Africa, a type of end-blown flute with fingerholes occurs, made from a bark-tube removed entire from the inner wood. This practice is well-known from Eurasian examples (Picken, 1975, pp. 350–6), but these are all, as far as is known, duct-flutes or concussion reeds or reed-pipes. Stripped bark, end-blown flutes are found in Kenya, Rwanda, Southern Sudan, Tanzania, and Uganda, generally played by adolescent males. Kenyatta (1938) states that Kikuyu examples have between four and eight fingerholes, but all the examples seen had either two or three holes. The deficiency of fingerholes is compensated for by the fact that these flutes will easily overblow, owing to their narrow bore, and a harmonic flute with two or three fingerholes can easily be made to yield a range of several octaves, after the manner of the European tabor-pipe. No rhyme assciated with their construction – a common feature in the making of Eurasian examples – has been noted. In some areas, stripped-bark end-blown flutes are only manufactured seasonally – among the Kikuyu, for example, where their use is restricted to the dry season, and where they are played by young men as a display of masculinity, and to pass the time while guarding crops (Kenyatta, op. cit.). There is no mention of seasonal use by other authors. Tenraa (1963) describes the Sandawe instrument as 'transverse'. This is not borne out, however, by his illustration or text. The statement is probably a mistaken interpretation of the oblique angle at which the flute is held in performance. The Sandawe stripped-bark flute is used by both sexes while herding cattle.

There is no evidence linking these instruments either with Arab flutes, or with Eurasian stripped-bark whistles. Our knowledge of Sudanese and Ethiopian children's instruments is so limited, however, that the possibility of such links cannot be ruled out.

5. *Shawm* HSN 422.11

Shawms occur in two areas of Africa: on the Southern edge of the Sahara – principally played by the Hausa and related peoples, and on the East Coast – played by a number of peoples between the Horn of Africa and Southern Tanzania, as well as on the island of Madagascar.

The Hausa shawm, *algaita*, presents the curious paradox that, despite obvious connections with the North-African shawm-playing traditions, it is structurally very dissimilar to shawms currently in use in the Maghreb.

Shawms in Morocco, *rhaita* or *ghaita* (Plate 15), are made of turned wood, with a cylindrical barrel, and an integral, flaring, conical bell, furnished with a number of tuning-vents. There are seven fingerholes, and a dorsal thumbhole lies halfway between the first and second fingerholes. Into the mouth of the pipe is inserted a piece of wood shaped like a clothes-peg, often referred to as a tuning-insert, but probably affording a stepwise increase in bore between staple and maximum diameter, causing the bore to behave like a conical tube (Picken, 1975, p. 486). The staple is a short, conical, brass tube, encircled by a brass disc to form a vestigial pirouette at its median point. The *rhaita* is used as a melodic instrument in dance music throughout the Maghreb, both by Arabs and by Berbers, and also as part of the royal ensembles of long trumpets, shawm, and drums, once common to a large part of the Islamic world, but now surviving only in Fez and Marrakech in Morocco, and among the Uzbeks and Tajiks of Central Asia (Vertkov, 1975).

The *algaita* of the Western Sudan has precisely similar functions, being used in the court ensembles of the Emirates of Niger, Northern Nigeria, and Cameroun, together with long trumpets and drums. The instrument itself is quite different, however. The body is a wooden cylinder, either carved, or burnt out with a heated iron rod, or both. There are four fingerholes, one near the proximal end of the body, where the staple is inserted, and three others lower down. A ventral thumbhole is only occasionally found, when it is situated at the level of the first fingerhole. The bell is carved from a separate piece of wood and fixed to the body with resin and strips of hide. It has a characteristic 'bottle-shaped' profile; that is, from being conical initially, it becomes virtually cylindrical. The staple, made of folded tin, is extremely long, and a large, free pirouette is situated just below the reed. Since the bow-lathe is unknown South of the Sahara, the *algaita* must *either* be a version of the North African *rhaita*, constructed within the constraints of available technology, *or* it represents an earlier form of the Maghreb shawm, since replaced by the modern instrument.

That there was an ancient European tradition of bottle-belled shawms is shown clearly by some of the figures carved on the columns of Beverley Minster (Montagu and Montagu, 1978). However, shawms typologically similar to modern North African and Turkish shawms also existed (Galpin, 1955, Plate 33 and Picken, 1975, p. 500) in Medieval times. Becker (1975, p. 49, Abb. 3) illustrates a Greek vase-painting from 400 B.C. which appears to show a shawm very much of this type, complete with pirouette and integral, flaring bell. The first clear depiction of a lathe is in a relief from Ptolemaic Egypt, dated at about 300 B.C. (Hodges, 1970, p. 160). This implies at least the possibility that lathe-turned shawms existed even at this very early date. If this is so, then it is more likely that the Sudanic *algaita* is only a copy of the turned *rhaita*. There are however, shawms with characteristics similar to those of the *algaita* in parts of India. A shawm made by the Khasi people of Assam, displayed in the Pitt-Rivers Museum, Oxford, has a carved body, a separate bottle-bell, seven fingerholes, and lacks a pirouette. Deva (1975, figure 3) shows an unusually large folk shawm, used by the Devdhani of

Plate 15 *rhaita* (shawm) from Fez, Morocco (p. 178). Length (without reed) 37 cm. (author's collection).

Assam, constructed on similar principles. The author notes that these people have not been influenced by Islam, so the discovery of a shawm among them is somewhat surprising.

It is possible that the bell of the Hausa shawm is a skeuomorph of a horn bell. Large horn-bells are attached to idioglot clarinets in North Africa (and also, in recent years, by a curious irony, actual glass bottle-necks); it seems possible that some of the early Mediterranean, cylindrical, double-reed pipes were fitted with horn bells. Until more information becomes available on the history of double-reed instruments in North Africa, the Hausa *algaita* remains *sui generis*.

The origin of the shawms on the East African coast is also something of a mystery. Grottanelli (1947) has presented evidence that the Somali *parapanda* is of South-East Asian origin. The *parapanda* has a cylindrical, carved body and a separate, detachable, gradually flaring, carved bell. A long, conical staple is inserted into the proximal end of the pipe, and there is a pirouette below the reed. There are five fingerholes and no thumbhole. The shape of the bell led Grottanelli to compare it with shawms of Chinese origin from Borneo; the detachability of the bell might also point to the same conclusion. However, gradually flaring bells are also known in Central Asia, and among Persian *surna* some at least have detachable brass bells. (It is perhaps noteworthy that the Somali use the side-blown conch, and this would also be consistent with an importation from the Indonesian area.) A shawm of this type has been found among a number of East African peoples, including the Giriama, Chagga, Digo, Duruma, and Sambara, all of whom inhabit the hinterland of Kenya and Tanzania; again, this is associated with the side-blown conch. In general, it has been assumed that these are all versions of the shawm known to the Swahili as *nzomari*; this may indeed be true of the Giriama shawm, known as *ngumari*. The Swahili shawm, however, seems much closer to its Arab or Persian models than to the hinterland instruments of such people as the Chagga; it is provided with a tin bell, perhaps in imitation of the brass bells of Indian, Persian, and Chinese shawms. Swahili shawms are apparently made by burning out the cavity of the body with a heated iron rod, whereas the shawms of the Chagga and Sambara are carved. There may be a case for regarding shawms found among these peoples as vestiges of earlier incursions on the coast, either by Indonesians or by Chinese.

The Malagasy shawm, described by Sachs (1938) may be related to the Somali *parapanda*. The name invites comparison with *balaban* – Central Asian Turkic for a shawm. The *parapanda* has five fingerholes but no thumbhole, with a small reed and a short metal staple. The bell, however, is enormous, suddenly and widely flaring. The closest parallel to this shape is that of the extraordinary Turkish shawms illustrated in a well-known painting by Carpaccio: 'Il Trionfo di San Giorgio' (illustrated in Sachs, 1928, Abb. 237, and discussed by Picken, 1975, pp. 498–500). Sachs argued that the Malagasy name of the shawm, *anjomara* was derived from the Swahili *nzomari*. As the distribution map in McLeod (1977) shows, the instrument is

principally associated with the North-West of the island, which is certainly the area where Arab influence was strongest. The reed and staple suggest those of modern Arab shawms, but the disposition of the fingerholes is rather that of the coastal shawms. If the similarity with the Turkish shawm is significant, then the *anjomara* may be a survival of a lesser-known Middle-Eastern shawm-tradition.

6. *Idioglottal clarinets with cylindrical bore* HSN 422.211

The Arabic term *zummara* is applied to most types of single-beating reed-instruments found on the coast of North Africa, especially those made from a giant grass found in the Maghreb. To a very limited extent, these have made their way across the desert, and simple instruments, presumably copied from North-African prototypes have been noted in the area around Lake Chad, for example (Brandily, 1974), and among the Idoma of Central Nigeria.* Transverse clarinets with a single fingerhole are widely used in savannah West-Africa; but these seem to be very ancient, to judge by the breadth of their distribution, and the diversity of terms employed for them, so that there is no reason to propose any link with Arab reed-pipes.

7. *End-blown clarinet with coiled-leaf bell* HSN 422.211.2

Hornell (1934) suggested that the small clarinet with rolled maize-leaf bell, found in the East-African hinterland, was of Indonesian origin. It was first described among the Kamba by Lindblom (1920, p. 406). The instrument he illustrates has a cane body, with a reed, cut in the wall, and bound at the base of the tongue to prevent further splitting from the tube. The bell is made from a coiled maize leaf, pierced by a single peg to prevent unrolling. The instrument has four fingerholes with charred edges, made, presumably, with a heated iron rod. It is played by adolescents, and is called *nzumali*. This is a Swahili word, normally applied to the wooden shawm played on the coast. Lindblom also refers to a report of the same instrument among the neighbouring Taita. Although the name suggests Swahili provenance, Sachs (1928, p. 132) classified it with the leaf-belled clarinets of South-East Asia, terming them 'Basttrichterklarinette'. Structurally, it is so similar to these that it may well be further evidence of Indonesian landings on this coast. Two specimens from the Celebes (illustrated by Kaudern, 1927, p. 255) have bamboo bodies, each with four burnt-out fingerholes, and a bell of coiled pandanus leaf. The instrument has an inserted idioglottal reed, like that of an Arab *zummara*; in the other, the reed is integral, being cut directly in the wall of the bamboo. Sachs (op. cit.) indicates that this instrument is widespread in the Indonesian islands.

As no clarinets of Arab origin have been recorded on the East coast, and since indigenous end-blown clarinets seem to be otherwise unknown in sub-Saharan Africa (with the exception of a fingerhole-less hunting lure from Southern Zaire – see Centner, 1962), it seems reasonable to suggest that the

* Personal communication from Mr Amali S. Ichakwu.

Kamba instrument is indeed a borrowing from Indonesia, and that the Swahili name *nzumali* has displaced an indigenous name.

8. *Side-blown conch without mouthpiece* HSN 423.122.1

This instrument is found virtually throughout Oceania and the islands of South-East Asia. It is found all over the island of Madagascar and on the East African coast between Tanzania and Somalia. So far as I am aware, shells used as lip-vibrated aerophones are not found elsewhere in Africa. It seems reasonable to suppose that this instrument too reached East Africa from South-East Asia (Sachs, 1938, p. 75).

9. *End-blown straight trumpets with mouthpiece* HSN 423.112.1

Cylindrical tubes, sounded by lip-vibration, are found almost throughout the continent, and it is not always easy to determine which of these are related morphologically to non-African forms. In a review of the distribution of long trumpets in Africa, Schaeffner (1952) lumps together all the various types that have been reported, both of metal and of reed, with and without mouthpiece, end-blown and side-blown. This seems to me misguided. There is a clear correlation between end-blown trumpets with mouthpieces and Islamic cultural influence; but there is no such correlation with other types of lip-vibrated instruments of cylindrical bore. The long, bronze trumpets, *nafîr*, familiar from medieval Arab miniatures, have virtually disappeared from North Africa, and are only to be found in the walled cities of Morocco, Fez, Meknes, and Marrakech (Plate 16). Modern specimens are made in three telescoping sections, and lack the decorative, spherical bulges at the joints, characteristic of earlier instruments (Farmer, 1966, Abb. 72). Trumpets constructed on this pattern are still widely used in the Islamized courts of the Western Sudan. They are used in the Hausa and Fulani courts of Northern Nigeria and Niger (Adams and King, 1971; Nikiprowetzky, 1963), among the Bariba of Northern Dahomey (Arom, 1973), and in Chad (Duvelle, 1968). West African examples are normally made of tin, have different embouchures from their North African counterparts, and retain the decorative bulges at the joints which have since disappeared North of the desert. These trumpets are normally used in pairs, in ceremonial music, along with the shawm, *algaita*, and double-headed snare-drum, *ganga*. This ensemble is mirrored by the group to be heard in Fez during Ramadam, which consists of a shawm, *ghaita*, two trumpets, *nafîr*, and double-headed drums, *tbl*. This ensemble was probably 'borrowed' from North Africa in the medieval period, although as I have pointed out previously, morphological divergences between North African and Sudanic shawms present a problem. It would be interesting to know the origin of the Hausa term for the trumpet, *kakaki*, which does not appear to derive from North Africa.

A number of trumpets with cane-barrel and separate mouthpieces have been reported from West Africa. Notable among these is the *farai*, used in Hausa royal orchestras (Ames and King, 1971), with a cane-barrel about 0.8

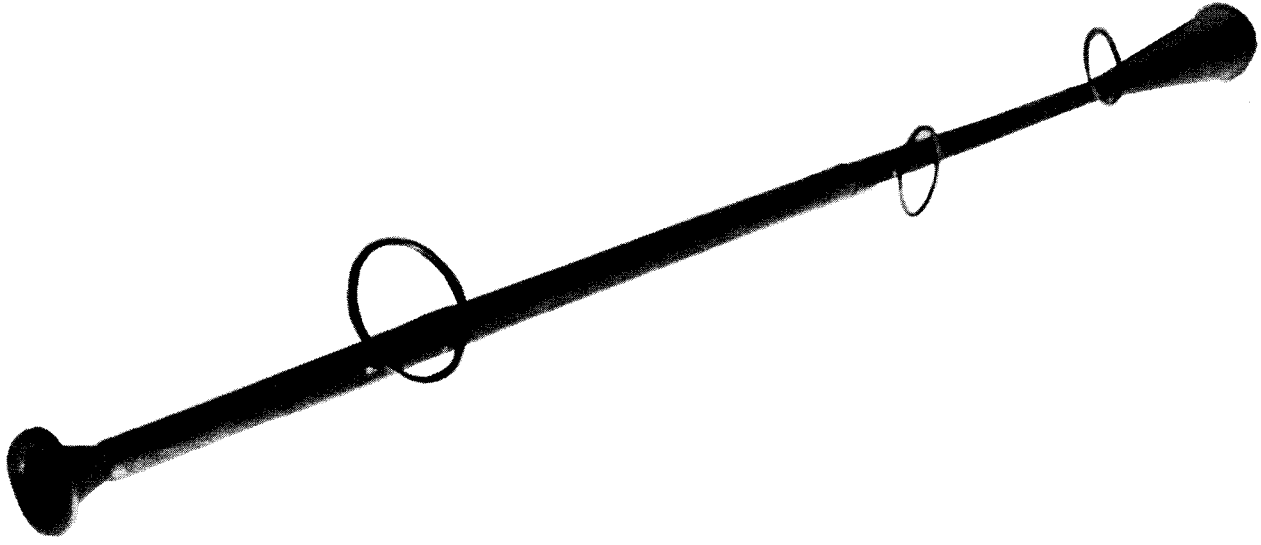
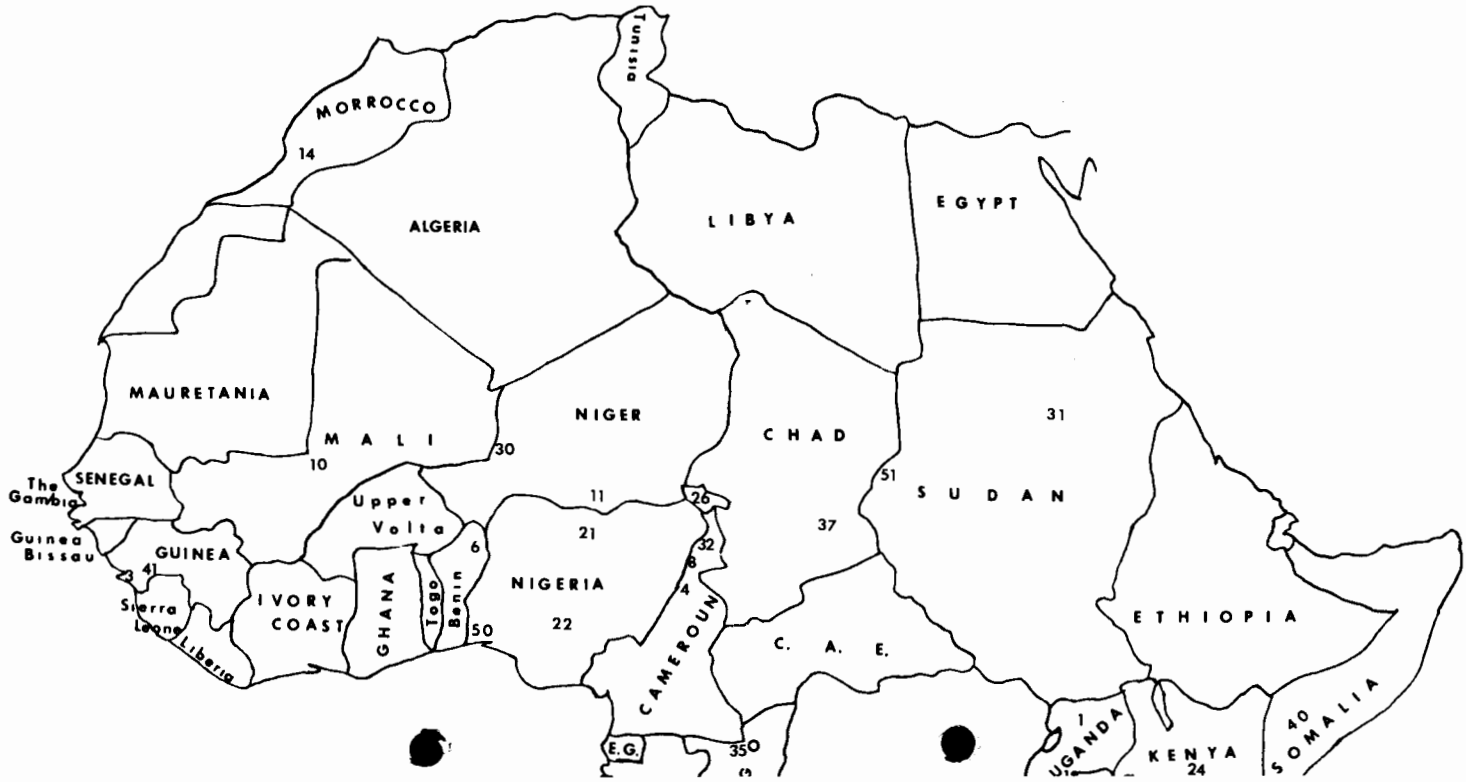


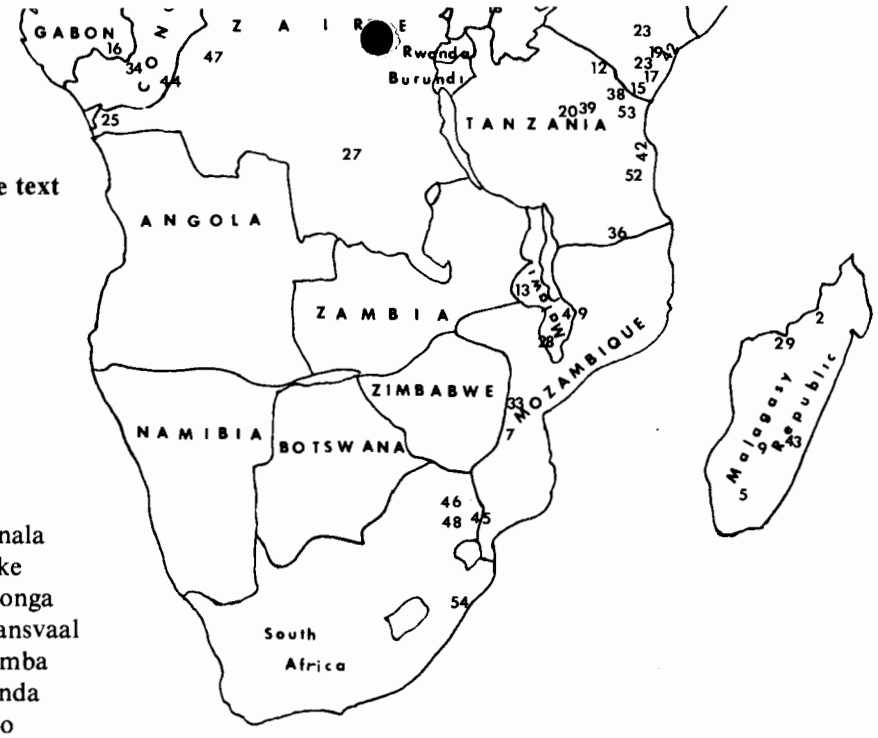
Plate 16 Bronze trumpet, *nafīr*, from Meknes, Morocco (p. 182). Length 158 cm. (author's collection).

metres long, a wooden mouthpiece, and a wooden, or tin, bell. Schaeffner (1952) quotes the description by Denham and Clapperton of trumpets observed in Bornu in the early years of the nineteenth century. These were between twelve and fourteen feet long, built from sections of hollowed wood, with brass mouthpieces. He also mentions seeing similar trumpets, two metres in length, in the orchestra of the Lamido of Mora in Northern Cameroun, in 1932. In view of the association of this type of trumpet with royalty, these trumpets may well be skeuomorphs of the tin trumpets previously described, constructed at a period when either the material or the technology available for the manufacture of such trumpets was in short supply. As we are still poorly informed about the distribution and vernacular terms for such trumpets, it would be unwise to speculate further.

Powne (1968, p. 36) records an Ethiopian end-blown trumpet, *malakat*, with a bell and brass mouthpiece, but he says the mouthpiece 'looks as if it was taken from an ordinary European trumpet or other brass wind instrument'. Other specimens do not show this feature. Wachsmann (1953, pp. 349–351) records two examples of lip-vibrated instruments from Uganda with separate mouthpieces; the Ganda *akawunde*, an end-blown conical gourd-horn, and the Acholi *olwet*, a trumpet with a cane-barrel, forced into a circular loop in some speciments, in apparent imitation of the European bugle. Wachsmann believes the modern form of both these instruments to have resulted from European contact, and in a later essay he demonstrated that European brass instruments were known in Uganda several decades before colonial conquest (Wachsmann, 1971). This suggests that funnel-shaped mouthpieces on lip-vibrated instruments in sub-Saharan Africa are all of European or Islamic origin.

It is greatly to be doubted, however, that long cane-trumpets, such as the Zulu *icilongo* (Kirby, 1968, p. 81 and Plate 30a) and the Malagasy *antsivambazaha* (Sachs, 1938, p. 12) are necessarily the product of European contact, as suggested by Kirby (1968, p. 274). Such trumpets, with horn bells, and with a variety of embouchures, end-blown, side-blown, and blown across an obliquely cut end, as in the Malagasy and Uganda examples, are known from Cameroun, Ethiopia, Madagascar, Kenya, Nigeria, South Africa, Tanzania, Uganda, and Zaire – a discontinuous distribution that suggests they are long established and a wholly indigenous development. That some areas have recently seen a convergence of performance-techniques between these trumpets and European brass instruments is certainly no argument against their antiquity.





Locations of peoples and regions mentioned in the text

1. Acholi
2. Analalava
3. Baga
4. Bana
5. Bara
6. Bariba
7. Bashilengwe
8. Bata
9. Betsileo
10. Bozo
11. Buzu
12. Chagga
13. Chewa
14. Chleuh
15. Digo
16. Duma
17. Duruma
18. Ganda
19. Giriama
20. Gogo
21. Hausa
22. Idoma
23. Kamba
24. Kikuyu
25. Kongo
26. Lake Chad
27. Luba
28. Mangand'ja
29. Majunga
30. Mawri
31. Meroe
32. Mora
33. Ndau
34. Ngangulu
35. Ouesso
36. Rovuma
37. Salamat Arabs
38. Sambara
39. Sandawe
40. Somali
41. Susu
42. Swahili
43. Tanala
44. Teke
45. Thonga
46. Transvaal
47. Tumba
48. Venda
49. Yao
50. Yoruba
51. Zaghawa
52. Zaramo
53. Zigua
54. Zulu

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