INTERLUDE

The Technology and Music of the Nigerian Igbo *Ogene Anuka* Bell Orchestra

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ABSTRACT

The author discusses the Nigerian Igbo *Ogene Anuka* music style, a complex form using iron bells of the same name. The article addresses the form and content of the music as developed and modified by its master practitioners. The author then investigates the technical processes involved in achieving the distinctive sound quality of the bells—processes in which musical considerations interact significantly.

The struck bell has been widely noted in African music literature for its timekeeping role in instrumental music ensembles. However, a variety of bells, of various musical functions, exist in Africa. No literature that I have found has discussed the bells as traditional master musicians' instruments or as elements of an ensemble. Elaborate bell designs and complex compositional uses of the bells are much encountered in the musical culture of the Igbo of eastern Nigeria. This article discusses a unique type of bell, the *Ogene Anuka,* as a "master instrument" in a bell orchestra in the Omambala river basin of the Igbo—its compositional features and specialized traditional technology**.** This will not, however, be a musicological study.

The Ogene Anuka is an instrument of the struck idiophone class. The bell is widely distributed in Africa, but is most prominent in the music of the West African region. It is made of iron by specialist blacksmiths. The music style in which it figures originated in Agulueri (a farming/fishing Igbo community on the Omambala River basin of southeastern Nigeria), but the construction of these unique bells is a specialty of craftsmen in Awka, an iron-smithing Igbo community some 70 km away from Agulueri. Migration within Igboland has made it possible for blacksmiths to settle in the performance community of the Omambala river basin. But the Ogene Anuka performers still travel to Awka to order their instruments from noted experts.

The bell has a flattish, conical shape, and is hollow inside. Sound production is a result of the vibration of the struck iron body, made to resound by the hollow inside of the bell. The iron body is struck with a soft wooden or fibrous stick.

The bell appears in a great variety of sizes; two common categories are the single bell and the double, or twin, bells. In the single bell category, the large single bell called *Alo* by the Igbo can be as much as 105 cm high, and plays a master, i.e. principal, instrument role in dance-music ensembles. There is also a medium single bell, 30 to 45 cm high, as well as various sizes of the more commonly encountered small bell.

The twin bell is a pair of single bells held together by an arched handle, which generally is structurally integrated with the sounding shell of the bell. In other types of twin bells, two metal cones are mounted on a single metal frame handle. The small twin bell is most common. Component bells have different tones/pitches, usually of an interval from a musical second to a fourth apart. (These intervals are approximations, as traditional instrument builders do not use precise measuring equipment.)

The bell has other, non-musical uses in West Africa: social, religious, therapeutic and political. For instance, it has special significance in the worship of the Yoruba iron deity, Ogun, in the Oyo state of Nigeria [1]; the bell is Ogun's symbol. In Ghana, it is used in ritual and court music [2]. Among the Igbo, the act of drinking water from a broken musical bell is a kind of speech therapy; Igbo healers also use the bell for sedating the mentally ill. The small twin bell is used by diviners to invoke spirits in some areas of southeastern Nigeria.

Politically, the bell is used as a kind of provost, an authoritative voice, to keep order in community meetings. It once symbolized the political authority of the powerful *Ekpe* society of pre-colonial southeastern Nigeria. It is now also used in funeral processions in Owerri, with raffia palm leaves (*omu*) tied around the open end. It is beaten to warn passersby that the funeral procession is using the route [3].

THE MUSICAL ROLE OF THE BELL

The bell is used in both vocal and instrumental dance ensembles, but it is used in festivals or funeral processions as often as in musical entertainment. In the Ewe music ensembles of Ghana, the double bell is used for timekeeping [4]—this use has been much discussed in African music literature [5,6].

The bell plays other specific roles in African ensembles. In formally choreographed dance ensembles, particularly of the Igbo, the *Alo,* the large, deep-toned single bell, is used as a master instrument. It plays a "rhythm-of-dance" role, outlining and directing the basic visual rhythm of choreographed dances, group or solo. Examples of dance-music types in which the large bell plays the rhythm-of-dance role include the *Atilogwu* of Umunze [7] and the *Nkpokiti* of the Igbo, which have received international attention. The Alo also plays the "pulse instrument" role in some types of ensemble. The pulse instrument sounds the regular, strong beat or pulse that binds

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the differentiated thematic structures of the other instruments in an ensemble.

Recently, M.E. Nzewi has posited the bell's ensemble role to be that of "a phrasing beacon for the other ensemble instruments which have the freedom to develop their themes" internally and externally [8,9]. The small single bell, which has a poignant, high pitch, can be used in music ensembles as a phrasing-referent instrument, playing a reiterated rhythmic phrase that guides all other ensemble instruments in terms of starting thematic phrasing and resolving thematic excursions. This is because the high-pitched single bell can be heard distinctly above other instruments. Another common ensemble role of the bell is as an obligato instrument, adding ornamental color or aesthetic effect. Less known is the bell's technical conception and design and musical ratiocination as part of an ensemble. This design and musical use is found in the Ogene Anuka bell music duo orchestra of the Igbo in the Omambala river basin area of Anambra State in Nigeria, named for the bell it uses.

The Ogene Anuka Orchestra

The Ogene Anuka orchestra is said to have developed from a now extinct form of horn music duo—two musicians playing two pairs of water-buffalo horns. This horn is hollow, with a conical shape, and is also very strong and highly resonant. When a pair of horns is struck together, musical sound is produced. Later on, bells replaced the horns in this local music style. The technology of the bell later advanced to develop special design features suited to the complex musical structure known as Ogene Anuka [10]. The musicians collaborated with specialist blacksmiths to construct the peculiar shapes and combinations of the bells to produce their distinctive sound quality.

The Ogene Anuka ensemble uses two composite bell instruments. The master instrument role is performed by an instrument that has four component bells, which constitute a quadruple bell (quad-bell) unit. A complementary role, which occasionally takes over the master instrument role in some pieces, is performed by a double bell. Thus, the orchestra has six component bells, that is, six primary "pitch-tones" (the pitches are not definitive due to inharmonic partials, but are easily vocalized). The quad-bell is made of large, lobe-shaped twin bells with another pair of tiny bells mounted on the arched handle. This pair is called the *ala* (breasts) or *nwa akwo n'azu* (a child borne on the back). The later term evokes images of nursing mothers in Africa, who sometimes carry their babies on their backs, using a strip of cloth to secure the child firmly, thus leaving the mother's hands free to perform other chores.

An Ogene Anuka component bell has a curvilinear shape (Color Plate A No. 1), which broadens from the apex to a wide, hollow body toward the rim. Its material is thick, quality iron, which gives it an unusual weight as well as robust resonance. The rich tonal vibrancy is quite distinct from the tones of other bell types.

The Ogene Anuka set then has a basic (open-stroke) six-tone scale, derived from the six component bells, for melodic and harmonic compositions. A variety of other distinctive tonal inflections, which widen the range of essential compositional "notes," are coaxed out of the component bells using intriguing striking-muting techniques. The larger double bell of the quad-bell has a musical interval of a major third; the breast pair has an interval of a major second. The separate double-bell unit also has an interval of a major third.

Tuning, as with all traditional melodic instruments, is relative. Using an arbitrary conventional musical note "E" as a starting point, the relative structure of the scale/mode of Ogene Anuka, derived only from the open-stroke technique, can be represented as C, E, F, A, F, G. The resonance exhibits inharmonic partials, such that these scale notes should be regarded as felt-pitch fundamentals, hence "pitch-tones." The relative intervallic tuning is fairly regular, although there could be some minor deviations depending on the builder and the performer. Such minor-scale or tone-row deviations are not musically problematic and, seen from the Igbo creative perspective of flexibility within conformity, scarcely distort the melodic-harmonic norms of construction, composition and perception. The scalic relevance of the secondary "tones," derived by other striking-muting techniques, is of essentially traditional compositional interest and will not be investigated here.

Ogene Anuka music, with its vibrant character, evokes feelings of bravery and jubilation. Although the music is of primarily contemplative conception, its effect compels action, which can be expressed in bold dance gestures by the performers as well as the stimulated listeners. The music in most modern usages is combined with singing. Lyrics recount the social image, accomplishments and exploits of the patrons who hire the ensemble for social events and private celebrations. The contemporary patrons, who have engineered this raconteur-instrumental vocal style, may be associations or wealthy individuals.

In spite of their weight, the instruments are played in some areas by mobile performers. A lead singer moves ahead or abreast of the bell players, and a chorus dances behind the musicians. The mobile group stops in homes or other locations to give impromptu concerts. These feature climactic sections, marked by the injection of intricate improvisational passages by the musicians during "hot" dance exhibitions. Such mobile bell orchestras are popular with young players, who may not be retained by any specific patron but may receive gestures of appreciation in cash or kind during community social events.

Instrument Technology

The Ogene Anuka bell is constructed of iron sheets by specialist blacksmiths: 14-, 15- or 16-gauge is preferred. This accounts for the unusual weight of this class of bells and the robust quality of the sound it produces. Other bells are made with much lighter materials. Before imported iron sheets were introduced and became prevalent, sandstone was used to smelt the iron materials for local blacksmithing. Mined coal or charcoal from hardwood is used as fuel for firing. Both are locally available. A bell mold is used as a standard for drawing and cutting out the bell shape from the iron sheets.

Tools

The blacksmith employs an assortment of tools. The firing is done with hand-pumped bellows connected to a roasting chamber or hearth containing a mound of coal into which the section to be heated is inserted.

The important tools used in the bell-making process are as follows:

- *Otutu Awka* (Fig. 1): An iron rod, about 35 cm long and quite heavy, fatter on one end than the other. It is used for hitting red-hot fired metal. It can also be fitted into a fixed stand and used for bending or curving fired materials. In that case, about ¾ of the rod, the portion used for mak-

ing curves, will stick out of the stand. The Otutu Awka is also a titular symbol associated with the second-ranking post in Awka town's ruling cabinet. Because Awka is known as the center of blacksmithing in southeastern Nigeria and has been famous from ancient times for ironwork, its sociopolitical thinking and organization have been much influenced by this trade.

- *Osisi Ama Awka* (Fig. 2). A metal rod with a flat head, which has a diameter of about 7 cm. The other end is permanently embedded in a felled tree trunk in a smithy. The fired iron is set on its flat top and knocked into shape while still red hot. (The name of this blacksmith's tool is also the title of the third in command in the Awka ruling cabinet.)
- *Akika Oyi-oyi*: A small metal chisel, about 10 cm in length. According to the blacksmith Nwankwo Nzekwe [11], whom I engaged to construct an Ogene Anuka set for the purposes of this study, *Akika Oyi-oyi* is *igwe n'eri igwe,* literally "the iron that eats (other) iron." It has a razor-sharp edge, which is used to cut metal sheets into desired shapes and sizes when the head is struck with a hammer or other heavy object.
- *Mkpa*: Literally, "gripper," tongs used by the blacksmith to pick out hot objects from the hearth. It also acts as a clamp, for holding together materials being fired in the hearth.
- *Mkpachi-oku*: A thin metal rod, about 90 cm long with a hooked end, used for gathering scattered coal into the hearth. According to Nzekwe, during his apprenticeship (in about 1965), when an apprentice fell asleep in the smithy, he was usually hit on the back, lightly, with the metal rod by the master, to wake him up.
- *Osisi Ebe*: An almost flat wooden peg of about 50 cm in length and about 10 cm wide at the head. Its form is that of the hollow of a bell, tapered toward the tail end. It is used to pry open flat double metal sheets that have melted together along the edges during firing. The flat tip of the Osisi Ebe is inserted into the flared rim and worked in to form the conical shape of a bell. A thin, flat-tipped metal rod of about the same length is first used to pry apart the closed rims. The shaping pegs vary in size according to the sheets they are intended to shape.

Fig. 1. The Otutu Awka, an iron rod used for beating the hot metal of the bell while it is forged. (© Chiamaka Ezeani)

Fig. 2. The Osisi Ama Awka, a metal rod embedded in a severed tree stump, on which the fired iron of the bell is set to be pounded into shape. (© Chiamaka Ezeani)

Making the Bell

First, the bell mold is used to trace the bell pattern in chalk on a 15- or 16-gauge metal sheet. Two identical patterns are traced out for one bell lobe. The "iron that eats iron," the chisel, is hit with a hammer to cut out the drawn shapes from the metal sheets. The two component sheets are then matched (Fig. 3). Wet earth is applied around the edges to be fired as a binding agent, except at the wide rim that will be the flared open end of the bell. The pair of metal sheets is then held together with the tongs and pushed pointed end first into the red-hot coal in the hearth. The upper, flat part of the bell is covered with coal, leaving just the clamped, wide rim out of the fire. The coals are kept at the desired temperature by continual use of the hand bellows.

There is no modern equipment for measuring the specific heat required for the process. Experience guides the blacksmith's sense of the extent of firing. When the metal is judged to approach a pliable state, the bell frame is pulled out of the fire. The Otutu Awka (iron mallet) is then used to beat the red-hot edges together on the flat surface of the Osisi Ama Awka. At this point, great care has to be taken while applying the wet earth; if too much is applied, cracking can occur.

After the edges are bound, the entire framework of the bell is fired, and, thereafter, inserted tail first into the metal or wooden block (Fig. 4), which has an opening on top of it in which to set the bell shell. The tongs are removed from the wide rim. The flat metal is used to gently pry the joined metal sheets from the unfired rim. Thereafter, a medium-size Osisi Ebe (wooden peg), which shapes the curvilinear, flat form into a tentative hollow form, is dipped into water and knocked into the pried-open bell lobe. At this point, again, care must be taken, as the metal is still red hot. Flames normally erupt when the wet wooden peg meets the red-hot shell of the bell, which chars it. The reason for dipping the wooden peg in water is to ensure that it does not burn up. This shaping peg is normally charcoal-black from the

Fig. 3. A bell mold is used to trace two identical patterns on a 15–16-gauge metal sheet. The shapes are chiseled from the sheet and bound together with wet earth. (© Chiamaka Ezeani)

Fig. 4. After the bell is fired it is inserted tail first into a metal or wooden block. The joined metal sheets are pried from the unfired rim, and a shaping wooden peg, the Osisi Ebe, is dipped in water and beaten into the open bell lobe. (© Chiamaka Ezeani)

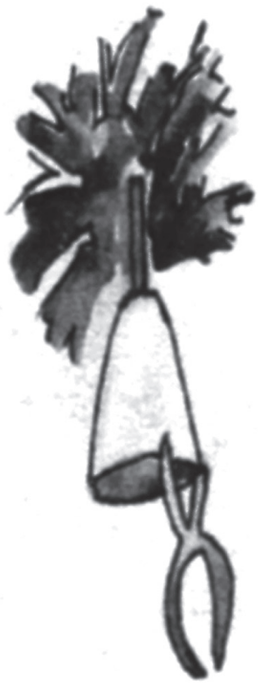

Fig. 5. The pointed end of the bell is pushed back into the fire and the tongs hold the open rim. (© Chiamaka Ezeani)

charring it receives and is eventually replaced when largely consumed by fire.

The larger Osisi Ebe is next used to fully mold the bell to the desired shape and volume. At this point, a single bell emerges. The bell is left to cool at environmental temperature, as immersing it in water would impair the pitch and tone. The same procedure is carried out to produce the component bell. One bell is intentionally made larger than the other from the start. When the two bells have been made, the next step is to join them together at the handle.

For this step, the pointed end of the bell is pushed back into the fire. After the firing, the tongs are used to hold the open rim while the fired end is beaten and compacted with the Otutu Awka until it is shaped into a nearly cylindrical form (Figs 5 and 6). It is then hammered into a curve. The same is done with the component bell. The two curved ends are placed overlapping each other, and the tongs are used to hold them firmly together at the open rim. The overlapping hooks of the two bells are knocked together, and wet earth is applied to the arched end where they are joined. The joined handle of the bell is then put back into the fire. When it has been fired and extracted, it is placed on the metal block. The hammer is used to bind and mold the handle together while still red hot.

The Otutu Awka is next fitted into the hollow in the metal block, and the loop formed by the joined bells' arch is balanced on the slim end of the Otutu Awka, which is sticking out (Fig. 7). The arched handle of the bell is further beaten and shaped at the edges. It is again fired and placed on the Osisi Ama Awka for smoothing the arch of the bell handle.

Next, one lobe is clamped while a piece of metal rod, about 20 cm long, is inserted into the other lobe and used to pull apart the overlapping bell lobes. The rod is then used to further smooth the edges of the arched handle. The unit is left to cool. The arch, which is not a sounding part, can also be immersed in water to cool faster [12].

Tuning the Bell

Tuning takes place during the construction of the bell, although the blacksmith who makes the bell is not the performer. The Ogene Anuka, due to its process of construction, as well as its fixed-tone nature, cannot be re-tuned after the construction is finished. If any of the component bells cracks while in use, it is taken to a welder. A sample bell already in use can serve as a tuning guide for checking the relative intervals. The tuning takes place after the bell has been fully formed.

The gauge of the metal sheet used will, in the first instance, determine if a bell set will have a generally deep tonal ambience or a sharp tonal ambience. The former is attributed to a higher-gauge sheet. For example, a 15- or 16-gauge sheet will give a deeper-textured and lower-pitched scale/tone row, which is generally preferred. The larger of the two bells is the first to be tuned. Only the apex (handle end), where fine-tuning is undertaken, is fired during the tuning process (Fig. 8). The red-hot bell is pulled out of the fire, and held with the tongs on the Osisi Ama Awka. The flat sides are tapped at the tapered handle end with the Otutu Awka (Fig. 9). Flattening the cone reduces the volume of the hollow inside, and the pitch rises. When the desired pitch is attained, the bell is left to cool.

The second bell is then fired, and the same tuning procedure is followed. But

Fig. 6. The Otutu Awka beats the fired end of the bell into a nearly cylindrical form, which is then hammered into a curve. (© Chiamaka Ezeani)

Fig. 7. The Otutu Awka is placed in the hollow of the block; the joined bells are then hung on the Otutu Awka's end so the handle can be further shaped. (© Chiamaka Ezeani)

Fig. 8. While the larger bell is tuned, the handle end is fired. (© Chiamaka Ezeani)

this time, while the tapering is being done, the blacksmith taps the bell lobe constantly to set the desired interval between the two bells. Thus the new set is being tuned to a certain bell, the blacksmith has to specifically tune both the larger and smaller bells to the older model. This is the most critical stage, for if the tonal level is set too high, it cannot be lowered, except if the *Anyu Nka* (a wooden peg about 40 × 10 cm with one flat and pointed end, used especially for repairs) is again used to increase the volume of the cone, an exigency that is normally avoided. Therefore, special care has to be taken during the fine-tuning. If, however, for any technical reason, the tuning note of a new bell is significantly higher or lower than that of a reference bell, the blacksmith does not necessarily condemn the new bell unit. Relative tuning, basic to the normative intervals, not the absolute matching of pitch-tones in all instruments, is the musical principle relied upon for tuning a new set. After all, the issue of higher or lower relative range depends critically on the preference of the performers.

In a case where the blacksmith is not guided in tuning by a sample instrument, he relies on his intuitive knowledge, that is, the scalic sense of the desired intervals, while tuning the first and second bells. Randomness is eschewed. When the root tone is obtained on the first bell, the second is tuned an appropriate interval above it. It must be noted that the traditional Igbo bell maker starts to tune the bells from a lower pitch-tone to a higher pitch-tone. As noted above, the sounding part of the bell is always left to cool naturally after every firing in the furnace: for purposes of binding the edges, opening the flat lobes, the final shaping and fine-tuning.

The traditional teaching on making the components of the bell orchestra enjoins the following precautions:

- Judicious application of wet earth, based on experiment and experience, so that fired joints will not crack (which would reveal poor work). Binding must be neat and firm.
- Attention to firing. If, for instance, the blacksmith is distracted while using the bellows, he could overheat the material. This could lead to cracking when the bell is struck at any stage of the heat-and-beat technique of construction.

PERFORMANCE

The Ogene Anuka is a two-man orchestra. The master musician normally plays the quad-bell, while the complementary musician plays the double bell. The double bell is ordinarily carried with the open end up and facing away from the body of the player, such that the large bell balances between the base of the thumb and part of the lower arm (Color Plate A No. 1, bottom). The quad-bell may either rest on the left lap while being played (Color Plate A No. 1, top), or be carried on its arched handle, to which the smaller double bell is fixed. The bell is played with a thick stick, about 20 cm in length, with a fibrous striking end. When the stick is cut, the striking end is made fibrous by beating it on the ground or on a rough surface. Slightly curved sticks are preferred.

Performance Techniques

The melodic/harmonic themes of the music of Ogene Anuka are composed

Fig. 9. The flat sides of the larger bell are tapped at the handle end with the Otutu Awka. The bell is thus flattened until its pitch rises to the desired level, whereupon it is left to cool. (© Chiamaka Ezeani)

with the six open notes of the two sets of bells. These six pitch-tones are the principal notes used in combination to produce significant melodies and harmonies for a performance-composition.

Additional melorhythmic (melodic derivation of a rhythmic essence) [13] tones possible on the Ogene Anuka, which are considered essential compositional notes, are produced by the following methods:

- The closed stroke creates a muted tone produced when the stick is held down while the bell lobe is struck. This striking technique inhibits the vibration of the metal body, producing a dullish tone.
- The dampened stroke. When the rim of the lobe to be struck is held with the palm and fingers, the quality of overtones and sympathetic vibrations cum harmonics are regulated.
- The open stroke, in which the open end of the struck lobe of a component bell is covered by the player's lap or midsection. This playing technique virtually encloses the vibrating air column in the hollow lobe. The sonic effect that comes with the release of vibrating air is that of a boom followed by a glissando. It is a kind of muted melorhythmic note.
- On the quad-bell, a variant of this melorhythmic tone is also possible when the instrument is carried flat on the performer's lap. The lobe to be struck is lifted while the other lobe is held. The struck lobe is immediately lowered lightly on the lap. A truncated, glissando quality to the muted sound is produced by the already vibrating metal body, comparable to the sound produced by running the bridging finger down the plucked string of a fretted stringed instrument.

THE MUSIC

The Ogene Anuka was originally conceived and presented as a purely instrumental music. Sectional transcriptions of recorded traditional performance show that the performers compose with recognizable themes. The double bell answers to certain calls made on the master instrument. The combination of the recognizable framework of the principal thematic statements, the conversational sections of secondary themes where answers are given to specific calls, as well as the normative performance-composition [14] elaborations, are intensive contextual compositional devices inter-structured to re-compose the performance presentation of a known piece.

A study of the improvisational sections shows that the general understanding of the scale and a total mastery of the tonal and acoustic possibilities enable both players to select what would best suit a spontaneous improvisational development of a thematic section in any performance situation.

In the vocal parts to the music, the instrumentalists sing and play at the same time. The lyrics, most of the time, are of social interest, as the Ogene Anuka music remains musically conceived and socially situated as "absolute" music [15]. When the lyrics are being rendered, the instrumentalists tend to recycle a steady background thematic framework with occasional internal variations. At breaks in the songs, there are injections of intricate improvisation, which can last from one to four bars; then the original background recurs to accompany singing. In some instances, depending on the nature of a given performance, these improvisational celebrations of creativity can last for as long as eight or more bars. The performers are guided by audience reaction.

CONCLUSION

This article is a preliminary study, for which work began with my apprenticeship to noted masters of the compositionally elaborate Ogene Anuka music of the Igbo of Nigeria and my graduation to performer/modern composer. I have investigated the unique technological and technical-compositional qualities of the instruments, and revealed the peculiar cultural sophistication of musical thinking, which employs relative tuning cum standardization (using imprecision of intervals and starting pitches of scales/tone-rows), an authentically normative African musical invention. Consequential human-music thinking [16] informs the African relativity theory [17] and determines the sonic orientations as well as humanistic bases of African musical thinking, creativity and presentation.

The development of specialized cultural products has always characterized African cultural history and creativity. Thus the Ogene Anuka, which derived from the horn-duo as a purely abstract musical concept, has accrued contemporary features, acquiring a vocal dimension as well as the more recent advancement of written music, [18] without altering either the relative standardization principle or the sonic nature and technological features of the instrument.

References and Notes

1. W.W. Echezona, *Nigerian Musical Instruments, A Definitive Catalogue* (Chicago, IL: Apollo, 1981) p. 31.

2. J.H.K. Nketia, *The Music of Africa* (London: Victor Gollancz Ltd., 1979) p. 73.

3. Echezona [1] p. 25.

4. J.M. Chernoff, *African Rhythm and African Sensibility* (Chicago, IL: Univ. of Chicago Press, 1976) p. 43.

5. Chernoff [4] p. 43.

6. M. Hood, *The Ethnomusicologist* (New York: McGraw Hill, 1971) p. 237.

7. M.E. Nzewi, *Musical Practice and Creativity* (Bayreuth, Germany: Iwalewa-Haus University of Bayreuth, 1991) p. 63.

8. M.E. Nzewi, *African Music: Theoretical Content and Creative Continuum* (Oldershausen, Germany: Institut fur Didaktik populare Musik, 1997) p. 33.

9. M.E. Nzewi [8] p. 103.

10. During previous field studies of Ogene Anuka music, the need to make my own bell set led me to the blacksmiths of Awka, about 70 km from the home of the famous traditional performers with

whom I studied the instrument. A keen interest taken in the construction of the bells has resulted in this article.

11. Nwankwo Nzekwe is a blacksmith in Awka, who makes these special bell types. He was born in 1946 and is a native of Awka. He started his apprenticeship in Sapele, the delta area of Nigeria. Nzekwe started smithing on his own in Awka in 1972, and began to specialize in the Ogene Anuka in 1986. He is married, with five children, none of whom are interested in the smithing trade. He has no apprentice. Young people are no longer keen on such old handicraft trades.

12. The water in which the heated, fired metal is cooled is said to be highly medicinal, for example, acting as an antidote to any kind of ingested poison.

13. M.E. Nzewi, "Melorhythm Essence and Hot Rhythm in Nigerian Folk Music," *The Black Perspective in Music* **2**, No. 1, 23–28 (1974).

14. Nzewi [8] pp. 67–69.

15. Absolute music is a music type created for no other purpose than to bring the audience together to contemplate its artistic merits.

16. Human music is a unique African music philosophy. It informs a creative aim to make the active performance of music normally within the capability of any member of society. Traditional Africans rarely ever philosophized or conceived public music as an art that would recruit only specially gifted or trained performers.

17. M.E. Nzewi, "Modern Creative Visions and Ecology for Africa's Performance Arts Continuum—Theory and Practice," seminar paper presented at the CODESIRIA Seminar in Composition and Transmission of Musical Forms in Africa and the Diaspora, Ghana, 2–4 February 2000.

18. The modern creative continuum of Ogene Anuka, which has adopted a written compositional method and a modern concert orientation, was advanced in the Ama Dialog Foundation for African Arts in Nsugbe, Anambra State, Nigeria.

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