

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 2000 Volume V: Sound and Sensibility: Acoustics in Architecture, Music, and the Environment

# **Exploring the Folk Instruments and Sounds of Kenya and Brazil**

Curriculum Unit 00.05.02 by Doreen L. Canzanella

The exploration of cultural sounds and instruments will be developed by looking to the cultural expressions inherent to a nation. This unit will be first introduced to third grade students. However, with little modification can be used for primary or secondary students. Although it is intended to be used within a team presentation, this also can be adjusted.

Every culture expresses itself through sound. The caveman pounded and grunted for communication. Eventually this evolved into a communal source of communication specific to a region. Generations developed, and this new found history beget folklore. Ways of learning hunting skills, seasonal changes, love, and the mysterious unexplainable were clarified through simple folk stories passed on through the years.

To introduce the cultural sounds of Brazil and Kenya, the students will study the folk literature available. The students will see it is not only the subjects of the stories or poems, but the cultural setting as well, that determines the vocal inflections needed to intrigue the listener.

In turn, musical expression developed in each country as its distinctive way of either accompanying these stories instrumentally, or singing these stories for memorization. My students will explore the music and instruments of Brazil and Kenya. The students will study the culture expression individual to each country, and how that need is expressed in the instruments used and musical sounds made.

## Kenya

The country of Kenya is rich with song being the characteristic musical expression. Kenyan music shares a common thread with the rest of Africa, as well as to some extent the Chinese, Burmese and North Americans. This shared experience is in the pentatonic or five-note scale. The well known African American spiritual, "Nobody Knows The Trouble I've Seen" is based on the same scale.

It is notable that our melodic contrivance is limited by the use of the pentatonic scale, and by the fact that our languages are tonal. Certain overtones are easily heard by the ear, while quarter and half tones expressed within vocal inflection cannot be written within our musical notation. If one looks at an old folk song from Kenya, the notation seems simplistic and very flat of expression. It is not until it is heard that the coloration's are clear. A good equivalent would be listening to a jazz singer. The notes are very straight forward on paper; the notes heard, however, couldn't be written in the standard musical notation.

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The storied told by elders within the Kenyan community translated into the songs heard and are made meaningful to the populus by local speech inflection. One example of this is 'The Tareni'. This vocal passage does not have notation available for it. The text is offered for vocal interpretation. It is a piece that is used to attempt to control spirits given to people from the local mchawi, or sorcerer:

Ntamu nkoma mbuni, Ntamu nkoma mbuni, Wantu wakuu wazima mama, Ntamu nkoma mbuni.

This text loosely translated basically says, 'Why do you not stop this nonsense, you who are no longer children but adults.' Young students could use this as an example of the different spoken rhythms present in the African language as well as internalize a steady beat. (Lesson 1).

Children begin to sing as soon as they make understandable words and continue throughout their lives, at work, at play and generally whenever people meet for a celebration. The children are taught songs with well known stories and are repetitive in nature for memorization skills. These songs take on a dance or game form to reinforce the learning process.

The Marombo is a singing game very popular in most parts of Kenya. This song/game is used to teach counting and also moves directly to a steady and monotonous rhythmic pattern. In its simplicity the youngsters amuse themselves for hours developing sequential thinking and internalizing a steady beat to be used profusely in dancing as they mature.

Every stage of maturation is celebrated and marked with celebration. The Kibuiya is the children's first real dance. The introduction of personalized instruments or tiny tin rattles are tied on the right leg and they jump around expressing their joy.

As they continue growing, the children explore their knowledge of making traps for catching animals. This added participation into communal life is celebrated with song while preparing their traps. Vocal instrumentation is polyphonic as well as polyrhythmic. Each step of musical maturation parallels the development of the body and soul.

Many communal celebrations, such as circumcision, harvest, weddings, and funerals are accompanied by instruments made from materials indigenous to the area. While the vocal lines can be loosely explained through the Pentatonic scale, this is far from true for the instruments. Conch shells, coconut shells, and various reeds are used in making pitched instruments, while hollowed tree trunks covered with animal skins or plant materials are used in non-pitched instruments.

### Cultural Significance

A true cultural, geographical and socio-economical understanding should be offered at this time from the

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collaborative class studying Kenya. Their insights will augment how instrument materials were chosen by the Kenyans and how those instruments evolved into the instruments used today. The students should notice the similarities in modern day drums, marimbas, xylophones, string bass as well as reed instruments.

The cultural significance of these instruments is easily presented in reviewing or introducing how these instruments were made in the United States by the slaves for communication between plantations. The stringed 'banju' evolved into the modern day banjo. Drums used on the plantations were called 'talking drums' because each pattern came to represent words or phrases and until outlawed by the plantation owners, helped plan escapes and revolts.

In Kenya, instruments enhance a performance with layers and layers of rhythmic punctuation. As to standard pitch, none has so far been established. Kenyan musicians tune at their own discretion. It is characteristic of most African instruments to be used in accompaniment and does not leave much room for them to be played as solo instruments. Usually the best player will carry some melodic tones, while the others add rhythms or ostinatos to enhance the performance.

## Scientific Findings

The students have explored vocal patterns in speech and song up to this point, as well as what instruments the traditional Kenyan would make to accompany their selections. The students should be able to further their exploration of just how to make instruments of their own. Simple materials of wooden dowels, many different lengths, and paper straws could be presented for consideration. The natural curiosity of third grade students should bring about the students use of the dowels as rhythm sticks. But with the different lengths offered, the students will notice varying tone quality. The same is true for paper straws. If the straw is flattened at one end and put between the lips as the student experiments with mouth pressure, the 'reeds' or straw ends begin to vibrate. Offering different lengths of straws, or even better cutting the straw as it is buzzing will produce a higher pitch. A discussion should ensue as to the why of that phenomenon. As the students offer up their explanations, charts should be made of their answers. This will naturally lead to the collaborative class that is the studying the scientific explanation of sound.

This cross-curriculum effort is very exciting to young students. The older students offer scientific explanations of sound. Why the reed buzzes. Why the shorter straw is higher. How is the rod held or tapped for the best sound. Together the students will choose two types of instruments to make for their class. One pitched and one non-pitched instrument.

#### Our Western Ears

Introducing this freer form of expression to our western ears will be best done by starting with sound poems or stories. Using vocal inflections and learning to stress unlikely syllables lends itself to vocal accompaniment. Standard written notation will have to be adapted so that the students can translate this vocal accompaniment into instrumental pieces.

As they learn the definitive sounds and derive notations to be used, the students will participate in each story or poem by selecting a repetitive phrase or reoccurring character to portray. The following discussion should include what instrumental or vocal sounds would enhance the story for the listener. Selected students would then be chosen to accompany the story or poem while others are portraying select characters. A verbal critique would then be offered by the audience members of the class.

The cultural understanding we are striving for, would be how this story was used, why it signifies what is

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important to that culture, and how it ties into the musical expression of that culture.

Simple folk songs from Kenya should be introduced at this time. The students should have a basic understanding of beat and rhythm, as well as simple musical notation. As the teacher presents the song(s) vocally, the students should be able to keep a steady beat in their laps and shoulders and interpret what the meter is, and what is the tonal center. (Lesson 2).

At this time, the different rhythmic patterns inherent to Kenyan music should be introduced and explored. A class discussion would analyze if it is the same, similar or different from what they already know. How does it reflect the speech patterns of the culture? What sounds does it make you want to hear in the instrumentation? How are the instruments used to enhance the musical timbre of that culture?

The students should be able to speak the song and play the rhythm simultaneously to feel what the new rhythmic patterns do to their vocal inflection. By using the instruments they have made to accompany themselves, they will develop deeper understanding of the role music plays in Kenyan life. With this in mind, the same inflection should translate to how the song is sung. Singing the song as a class should produce a common understanding of the vocal accents and pitch variations needed to authenticate the cultural sound.

#### **Brazil**

Exploring the cultural expression of Brazil seems simple enough at first, however cultural lines are blurred in a nation influenced by native Tupi Indians, Portuguese settlers, as well as imported African slaves and European traders. All contributed to the sounds of Brazil - some with an aristocratic approach, while others spoke in rebellion and frustration.

While the cultural sound is distinctive, paring down to its derivatives is a difficult task. The relaxed attitude of Portuguese colonists toward integration produce a racially mixed society of caboclos (white/Indian), mulattoes or paros (dusky colored) and cafuzos (Indian and black). Each represented and contributed it own unique elements to produce a national heritage of dance and music incorporating traits from the heritage of all.

### Cultural Significance

Before delving in the musical sounds of Brazil. It is very important for the students to understand the differences between the folk history of say the Kenyan unit and the lack of folk history in the Brazilian culture. The geographical and socio-economical parameters should be explained and explored with the collaborative class studying Brazilian culture. They would bring a deeper understanding of how the social classes were formed and what each class brought to the melting pot of Brazilian sound.

In researching Brazilian culture, European influence is high. The early songs are not truly representative of the Brazil we hear today. Heitor Villa-Lobos, a well known early Brazilian composer, wrote 'Higiene' as representative of a children's song. Written as a simple seven measure lullaby, the melody is from the tonic and dominant chords.

This tonal center suggests a strong European influence. The subject of the three stanza is a female household servant giving a bath to a small boy and dressing him in new clothes. This is representative of a typical European class structure. Although it was written to represent all of Brazil's children, it hardly speaks of the African slave's children or of the Tupi Indian's children. They could not identify with the idea of a servant, or that the rhythms were sedate.

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It is not until African slaves were brought into the country that song and dance became prolific in Brazil. The African slaves brought with them a culture rich in musical expression. The field workers and household servants infused song into the every day life of the populus of Brazil.

The assimilation of African music into Brazil assumed three basic forms: music learned from white colonists and performed accordingly; white performance practices were learn and superimposed on African music; and songs learned from the colonists and African practices were superimposed.

The result is emphasis on rhythm, the importance of drums and percussion instruments, the use of short motives, call and response and a manner of singing that is clearly identified as common to both Brazil and Africa. Most Brazilian music shares these three outstanding qualities. It has highly expressive melodies, high level of poetry, a European influence, and a vibrant rhythmic drive, an African influence.

The terms folk music or folk stories are almost not applicable to Brazilian culture. The oral tradition of passing folk stories or folk music down from generation to generation simply was not done. Popular music, existent and very prevalent today, has come to signify Brazil. The samba, a popular dance and song style, was readily accepted as the Brazilian sound, and still is today.

Like the melodic and rhythmic nature of Brazilian music, the instruments are also borrowed or assimilated from other nations. The instruments used today are direct descendents of the Indian and African culture. The scraper is now our reco-reco, and the modern guiro, and the African cow bell is now the pitched instrument the agogo. The melting of the rhythms of the Indians and the Africans into one musical sound is what has made the Brazilian sound.

Chanting and vocalization has produced the syncopated rhythmic lines felt unceasingly in the samba. Syncopation, which flavors the samba, is a direct effect of African rhythms. This highly popular dance is said to have come from an African circle dance that starts with navels touching presenting an invitation to dance. This is a form of invitation the Portuguese would never have come up with on their own.

However, it wasn't until the mid-nineteenth century that the Samba broke free and came into its own. At this time, during Carnaval, a pre-Lenten European celebration, the poor of Rio de Janeiro grew tired of the upper-class having all the fun. Typically, the upper-class would don masks and take to the streets dancing to waltzes and marches ignoring acceptable social behavior and reveling in social disorder. Somewhat like Mardi Gras is celebrated now in New Orleans.

The mid and lower classes developed a dance to drums beating to heavy African rhythms. Their 'invitation' to dance was hypnotic and this rhythmic pulse of the street became the samba.

The European influence did bring a broader melodic line to the highly rhythmic chanting or vocalizing of African tribal sounds. Here the European influence of expanding the scale to include all eight notes and standard musical notation created a distinct modal sound. The instrumentation could not tune to a true major scale. A modal, almost lydian scale lends itself to produce the sound of Brazil.

Presenting this to the students is best done by a fair understanding of European religious or non-participatory music (chamber) and its notation. Keeping within a 2/4 or 4/4 meter and C Major or F Major scale, the students should be able to feel the meter and identify the tonal center of 'do' in the piece presented. They should also be able the identify what instruments are being used and why this reflects the expression of the piece.

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Subsequently, the introduction of the Brazilian sound should concentrate on the religious rite of Carnaval. As a religious observation, the celebration is grounded within a European rite but it is celebrated with the unique Afro-Brazilian sound. (Lesson 3)

The students can compare instrumentation, rhythmic notation and melodic line. Identifying particular influences of rhythmic patterns and melodic intervals borrowed from each country would clarify how the pieces fit together to form a new sound. The discussion should follow with how does this represent the Brazilian nation and why. What instrumental sounds evoke the Brazilian feel and why.

The students would be presented with a simple folk or children's song from Heitor Villa-Lobos and subsequently provide instrumentation for the piece. Creating a sound piece first, this sound poem should develop the accents needed for proper vocal inflection.

As the students choose sounds, pitched and non-pitched, the teacher should be precise in directing the students towards modern instruments, such as the guiro, afuce, agogo, and conga for accompaniment. This would help correlate the direct relation to the original folk instruments used in the Brazilian cultural sound then and how they translate to the Brazilian sounds now.

## Scientific Findings

As with the section on Kenya, what material an instruments is made with is important. But the cross curriculum class studying the science of sound should introduce the why and how of sound. Since the recoreco, or scraper and the double cow bell or agogo were and are very prevalent to the Brazilian sound, these would be the instruments of choice to explain. What materials were used then, how are they different from materials now?

The approach in the Kenyan unit was explaining pitch differential. A different approach of material choice in the Brazilian unit would explain timbre. Experimenting with wooden scrapers such as reco-recos or guiros, and subsequently with metal scrapers, made by the students, would explain the natural tones carried by a certain material.

## Final Culminating Project

Each student will be given the task of selecting one type of instrument to construct.

Instructional patterns would be offered, as well as the types of materials needed to produce the instrument. As a final project for this cultural unit, the students will create instruments by working with the older students developing the scientific formulas needed to create these instruments. They will explore and choose the materials for timbres needed, as well as shape and size for pitch range.

As a culminating activity, the students will learn to re-create music for and play the instruments made to represent each country. The suggestion is highly made at this point to concentrate on one festival from each county that clearly represents the cultural musical expression.

For Kenya, although the choices are plentiful, the arrival of the rainy season or a marriage ceremony would represent the entire village participation.

The Brazilian celebration of Carnaval , the pre-celebration of the Roman Catholic lenten season, would represent an extreme blend of pagan influence on a deeply encrusted formal religious holiday. In contrast,

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candomble an authentic Afro-Brazilian celebration, is observed. This festival incorporates cult music honoring the pagan deities and offered gifts to keep the evil forces placated. Thereby, protection for another year is obtained. This keeps social order in place and the gods happy. The differences are rich with opportunities for comparison of the two strong influences that create the Brazilian sound of today.

The students should be given a simple rhythmic pattern (4 measures long) representative of each culture. The students will analyze and play the rhythms and create an improvised vocal line for it, in the style of each culture. Ultimately, 4 pieces would be chosen to make a simple 16 measure song. The students will notate the completed song on conventional staff paper for their folders.

Each third grade class would have 2 -16 measure songs, (1-Brazilian style and 1- Kenyan style), created specifically for and by them. Upon completion of their instruments, the orchestration would be the next task at hand.

The class will work in smaller groups to find instrumentation for their song. Collectively the best would be chosen and arranged to accompany their song. Each student will add this instrumentation to their previously notated song.

Each third grade would be presented with all 6 songs to play. A discussion and ultimately a critique would follow. The students will analyze each song culturally, rhythmically and melodically. It would be expected that each student could identify what does work, what does not and why.

The culminating activity should include all forms of presentation. Poetic, dramatic as well as musical representations which would allow all the students to participate however musically inclined.

A cumulative videotape of each class would be made offering a brief introduction to their songs and instruments with a performance of each. These videos would be presented to the collaborative classes that presented cultural and scientific information for them to study.

As the unit is completed, the team will organize a presentation at the International Festival 2001. Each stage will be notated and represent the collaborative efforts of all the students involved. Videos will be available to view of the songs written and instruments made.

#### Lesson 1

Learning Objectives:

The students will listen to a vocal/percussive passage from Kenyan folk music.

The students will perform 'The Tareni' vocally and instrumentally.

Materials Required:

wall chart of 'Tareni'

rhythm sticks

Sequence of Events:

The teacher will speak, 'Tareni', a 4 phrase piece, modeling a steady beat on the hand drum. (It is possible to

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add sequenced percussive accompaniment for a multi-layered percussive effect).

Student Tasks:

The students will keep a steady beat in their laps the second time it is performed, listening for strong and weak beats.

The students will echo each phrase, putting the word rhythms in their hands.

The students will repeat the vocal passage, this time keeping a steady beat in their laps.

The students will transfer the beat to the rhythm sticks, taking care to emphasize strong and weak beats, while reciting the passage.

Evaluation/Assessment Method:

Group performance with rhythm sticks, keeping a steady beat while chanting the vocal passage.

A few students join the teacher playing the vocal rhythms, while the rest of the students keep the steady beat and chant.

Small groups performing the piece, some taking the beat, some taking the rhythm, all reciting the vocal line.

### Lesson 2

Learning Objectives:

The students will sing "Kye Kye Kule".(see page 13)

The students will play "Kye Kye Kule: with ostinatos and rhythmic accompaniment.

The students will improvise motions to accompany the song.

Materials Required:

Large chart of song with notation and words.

rhythm sticks

bass xylophones

hand drums

References/Resources:

'Let's Get the Rhythm of the Band'- Cheryl Warren Mattox

Book & Tape/CD

Sequence of Events:

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The teacher will model singing and motioning to the song.

The students will echo each phrase the second time through, mirroring the motions of the teacher.

Student Tasks:

The students will identify what the meter of the songs is.

The students will keep a steady beat in the laps while listening to the song.

The students will transfer the steady beat, in the form of ostinatos on the instruments.

The students will improvise motions to the song

The students will perform the songs with some playing instruments and others performing the motions.

Evaluation/Assessment Method:

Improvising within the parameters of 2/4 time, changing the movement every 8 measures.

Small group performances combining instrumental ostinatos and movement.

## **Kye Kye Kule**

Meter:2/4

Key: C

*Instructions:* 

There are so many different versions of this chant, the original meaning is no longer clear. However, children still use this chant to accompany some form of motion game.

A leader should sing each phrase first and at the same time model a motion.

The group follows.

The rhythms notated are in;

eighth subdivisions (1 &, 2 &,)

sixteenth subdivisions (1 y & a, 2 y & a) and are placed under the pronunciations.

The scale pitches are placed above the words.

The chords to be played, if chosen, should be in a simple C Major Scale.

ssfsssfs

(leader) Kye Kye Ku-le, (group) Kye Kye Ku-le

(chay chay coo-lay) (chay chay coo-lay)

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1&2&1&2& s s m f m s s m f m " Kye Kye Ku la-la, " Kye Kye Ku la-la (chay chay coo la-la) (chay chay coo la-la) 1 y& a 2 & 1 y& a 2 & m s d m m m s d m m" Ko-fi nsa lan-ga " Ko-fi nsa lan-ga (co-fee sa lan-ga) (co-fee sa lan-ga) 1 y& a 2 & 1 y& a 2 & rrm d d rrm d d " La-la si lan-ga " La-la si lan-ga (la-la see lan-ga) (la-la see lan-ga) 1 y& a 2 & 1 y& a 2 & d m d d d m d d " Kum a de-de " Kum a de-de (coom a day-day) (Coom a day-day 1y& a 2 & 1y& a 2 & d (everyone) Kum (rest) (coom)  $1 (1 \frac{1}{2} \text{ beats rest})$ 

Enrichment:

Any motions may be used.

y&a 2 &

A cross-curriculum enrichment activity would be to have the students make up a story to be told, using this

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song, and the motions they have created.

## Lesson 3

Learning Objectives:

The students will listen to a Samba used in the Carnaval in Brazil.

The students will identify rhythmic passages, specifically 'syncopa'.

The students will identify instruments used.

Materials Required:

Chart of syncopated rhythms represented in the song.

1990 compilation of Samba de Enredo or later, Group A.

agogo

guiro or reco-reco

rhythm sticks

References/Resources:

The Brazilian Sound: McGowan

Sequence of Events:

The students will listen to the sambas for the celebration of Canaval.

The students will play along, keeping a specific syncopation on their instruments.

Evaluation/Assessment Method:

The students will be able to play a steady beat along with the record.

The students will be able to play a syncopated beat along with the record.

The students will improvise a new syncopation that can be played along with the record.

Enrichment:

A fun cross-curriculum project would be to coordinate with the physical education teacher(s) to teach the samba dance. The students can the incorporate this dance while playing.

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Compilation of games and lullabies passed down from the traditional village setting and used in school yards and streets of today.
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