Chapters 1-10
A teacher’s guide featuring multi-cultural, cross-curricular lessons designed to support an integrated arts and academics program.

Contents Include:
Introduction • Lesson Guides • Extensions • Funsheets • References
Companion Audio CDs with Musical Examples & Play-Along Exercises
# Roots of Rhythm

World Drumming for All Ages

*Volume I*

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About the Author of *Roots of Rhythm: Volumes I and II*

Dr. Craig Woodson earned his doctorate in music from the University of California at Los Angeles, with specializations in music education, ethnomusicology, and ethnic musical instrument technology. He has been a percussion teacher, a performing and recording musician, college lecturer, a teaching artist in schools, and a music consultant for over 35 years. He has written articles and performed in videos on musical instruments, drumming, and the making of simple musical instruments from around the world.

After starting a small business making ethnic musical instruments in the 1970s he obtained twelve U.S. patents on musical instrument technology. In 1979, he started a three-year project as an invited researcher in Ghana, West Africa, assisting in the mass production of African instruments for Ghanaian schools. His writing includes computer transcriptions of jazz drummer, Tony Williams’ solos and African drumming and drum making.

He has been a music consultant to Walt E. Disney Enterprises, the U.S. State Department, Remo, Inc., and the Percussion Marketing Council. Dr. Woodson has presented educational concerts with organizations such as The National Symphony Orchestra, the Los Angeles Philharmonic, the Cleveland Orchestra and Kronos Quartet. In 2000, he was featured in a NASA video on music and space science, and was given a grant from the National Endowment for the Arts for educational programming.

Dr. Woodson has played drums in movies with Elvis Presley, performed on TV with Linda Ronstadt, and recorded with Ray Manzarek of the Doors. As a Columbia recording artist in 1968 he was a member of the celebrated electronic rock band, the United States of America. He was a consultant and Senior Director of Education at the Rock and Roll Hall of Fame and Museum.

From 2005 to 2013, he received support from the International Music Products Association (NAMM) and the NAMM Foundation through the Percussion Marketing Council to write and teach the Roots of Rhythm. Beginning in 2009, Dr. Woodson became Director of Roots of Rhythm, and has continued to teach RoR workshops around the United States and overseas.

In 2009-2010 Dr. Woodson traveled to Iraq and Indonesia for humanitarian work with a music therapist. At that time he started his non-profit, Drums of Humanity to assist with this effort. His work is recognized by an agency of the United Nations in the compendium, Music as a Natural Resource. He continues to work a teaching artist, performing musician, world music consultant, and writer. He has two grown children and lives in Chagrin Falls, Ohio.
Welcome!

*Roots of Rhythm: World Drumming for All Ages* takes teachers and students on a journey to explore different cultures, music and instruments from around the world and enjoy both listening to and playing rhythms using ethnically diverse percussive instruments, found or student-made instruments, or body percussion. *Roots of Rhythm* is the result of collaboration between the Percussion Marketing Council and the International House of Blues Foundation (IHOBF) and was created for use in IHOBF and other arts and educational programs. The curriculum, which combines music with history, social studies, geography and language arts, has been designed to support classroom teachers in integrating music, music-making activities and related cultural content into classroom curriculums. Content and activities align with state and national education standards.

*Roots of Rhythm* offers teachers and students an enjoyable and educational experience and can serve as a point of departure for exploring other rhythms and cultures, past and present, from around the world. By supporting music experiences outside of the music room and bringing them into the regular classroom, *Roots of Rhythm* creates opportunities for many more students to learn about music and participate in music-making activities.

The IHOBF is dedicated to bringing the arts to schools and communities through programs that promote cultural understanding and encourage creative expression. IHOBF was established in 1993 and has expanded to seven locations nationwide, including Anaheim, Chicago, Cleveland, Las Vegas, Los Angeles, New Orleans and Orlando. IHOBF programs teach about American culture and history through blues music and folk art, encourage exploration and appreciation of diverse cultures, emphasize the importance of creative expression and support youth participation in the arts. Core programs include the Blues SchoolHouse, Make An Impression, Visiting Artist programs, and Blues Ambassador Scholarships. Each IHOBF location also hosts an annual Dr. Martin Luther King, Jr. program and participates in local community cultural activities. Programs are offered at House of Blues venues as well as in school and community settings. To learn more about IHOBF mission and programs visit [http://www.ihobf.org](http://www.ihobf.org).

Formed in 1995, the Percussion Marketing Council is a trade organization made up of drum and percussion manufacturers, suppliers and dealers. It is governed by a board made up of a representative group of its members. The PMC's goals are two-fold: 1) to expand the drum and percussion market by increasing the public visibility of all forms of drumming and by promoting
drums and drumming as a positive, healthy activity for all members of the public through a variety of activities; 2) to unify the percussion industry by providing a forum for intra-industry communication. In order to achieve the above goals, the PMC relies on funding in the form of annual membership dues as well as financial contributions from music-related companies and organizations.

How Teachers and Students Benefit from *Roots of Rhythm*

*Teachers:*

- Learn about rhythms, drums and percussive instruments from around the world within their respective cultural and historical contexts.
- Gain ideas and resource materials for use in introducing *Roots of Rhythm* content into classroom curriculums.

*Students:*

- Learn about different countries and cultures (basic geography, social history, cultural and musical traditions).
- Gain awareness of how music reflects life conditions and experiences.
- Increase their understanding of different cultural traditions and belief systems and of how diverse cultures influence one another.
- Learn names of and sounds made by different drums and other percussive instruments.
- Learn about rhythms and musical styles from different cultures.
- Learn to play and create rhythms.
- Develop listening skills and music appreciation.
- Have fun listening to and making music.
Introduction to Roots of Rhythm

*Roots of Rhythm: World Drumming for All Ages* is a curriculum that introduces ten percussion rhythms from around the world to teachers through chapters that place a specific instrument and its rhythm in the context of a particular country and culture. Each chapter begins with information about the country’s flag, size, population, geography and climate. This is followed by a description of the country’s background, history, and culture. The last sections present the “focus” instrument and related rhythms, how they are used in an ensemble, and their significance as a *Root of Rhythm*, all using a notation that can be understood by the non-music teacher. The curriculum comes with a CD that contains play-along music and examples of notated rhythms. Most foreign words are in italics and the text includes their phonetic pronunciations.

The *Roots of Rhythm: Volume II* adds six new chapters to the *Roots of Rhythm* (ROR) curriculum and includes a special *Extensions* section that shows how all sixteen instruments compare and contrast with each other and similar instruments from other parts of the world.

The selected percussion instruments are based on the “Classification of Musical Instruments” set forth by Germans Curt Sachs and Eric M. Von Hornbostel in 1914 and translated into English in 1961. This system has become the standard for classifying musical instruments from around the world. The RoR lessons include seven membranophones (where the drumhead vibrates), two idiophones (where the instrument’s body vibrates), and one that combines these two types. The ROR chapters include four membranophones (where the drumhead vibrates), one idiophone (where the instrument’s body vibrates), and one electrophone, an instrument that requires electricity to amplify the sound. The sound of these instruments depends on three factors (shape, playing technique and modifier) as follows:

**Shapes:**
- Hourglass - usually with two drumheads and of variable pitch
- Goblet - one drumhead with a deep tone of fixed pitch
- Barrel - one or two drumheads
- Cylinder/cone - one or two drumheads
- Frame - a shallow hoop with one drumhead and a handle
- Kettle sets - one drumhead on a rounded kettle in a set of two, small and large

**Techniques:**
- Percussion - idiophones, in this case a xylophone struck with a beater
- Friction - membranophones rubbed to get a sound
- Shaken - in this case a drum that is hit and/or shaken to get a sound
- Concussion - idiophones, cymbals, two similar un-pitched parts struck together

**Modifier:**
- Jingles – attached to the drum body to get a jingling effect
- Snares – attached to the drumhead to get a buzzing or snap effect
- Center paste or bump – formed on the drum’s playing surface to render a pitch
- Electronics – electronic circuits that can modify an analog or digital signal
The choice of rhythms and instruments included in *Roots of Rhythm* was further based on a criteria established by the author, Dr. Craig Woodson, in conjunction with the Percussion Marketing Council. Choosing from the myriad types of rhythms and percussion instruments from around the world that included membranophones and idiophones was a daunting task. To narrow the selection, it was determined that the final choices had to fulfill six requirements. Each final rhythm and instrument had to represent:

1. One of the ten major types of rhythms found throughout the world (listed below).
2. Either one of the major sub-sections of membranophones: hourglass, goblet, barrel, cylinder, cone, one and two drumheads, variable tension, friction, modified with snare or rattle; or one of the major sub-sections of idiophones: concussion, metal, percussion, wood, pitched and non-pitched, and shaken.
3. A significant historical connection to the roots of rhythm from around the world.
4. Importance to people from the ethnic area represented.
5. Either an ancient rhythm dating between 500-3000 years ago or a modern rhythm dating between 100-500 years ago.
6. One of the diverse cultures from around the world, but limited to two countries each from the broad cultural areas of Africa, Asia, Europe, the Middle East and the Americas.

Choosing from the many types of rhythms and percussion instruments that might be extensions of the original Roots instruments for the Extensions chapters was difficult. To narrow the selection, it was determined that the final choices had to fulfill four additional requirements. The instrument or rhythm had to represent the following:

1. Another version of a ROR instrument either by migration or independent invention
2. A substantially different instrument for purposes of comparison
3. An importance to the people from each ethnic area represented
4. One of the diverse cultures from around the world

In the process of choosing the ten ROR instruments, a short list was plotted on a chart (see below) that compared various aspects of the instruments including their families, shapes or techniques, names, cultures, countries, and relative ages. The goal was to establish a baseline for choosing the final ten. A review of the chart shows that not all families of instruments are common in all cultural areas. For example, a shaken drum is not common in Africa and a xylophone is not common in the Middle East. It is apparent that a wider variety of percussion instruments are slightly more common in Africa and Asia than in the Middle East.

The chart shows the ten ROR focus instruments in bold font. An “M” refers to membranophones, and an “I” refers to idiophones. The seven categories marked “NC” mean that examples are not commonly found in that area. The “RC” stands for recently common within the last 100 years. Foreign terms are in italics and some diacritical marks like a macron (ā) are used when available.
The six RoR instruments in Volume II in alphabetical order are as follows:

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Country</th>
<th>Shape</th>
<th>Technique</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pandeiro</td>
<td>Brazil</td>
<td>Frame</td>
<td>Hit, shake</td>
<td>Jingles</td>
</tr>
<tr>
<td>2. Snare drum</td>
<td>Switzerland</td>
<td>Cylinder</td>
<td>Hit, rub</td>
<td>Snares</td>
</tr>
<tr>
<td>3. Steel drums</td>
<td>Trinidad</td>
<td>Cylinder</td>
<td>Hit</td>
<td>Loaded bump</td>
</tr>
<tr>
<td>4. Tabla</td>
<td>India</td>
<td>Kettle</td>
<td>Hit, press</td>
<td>Loaded paste</td>
</tr>
<tr>
<td>5. Turntable</td>
<td>U.S.A.</td>
<td>Disc</td>
<td>Rub</td>
<td>Electronic</td>
</tr>
<tr>
<td>6. Daf</td>
<td>Iraq</td>
<td>Frame</td>
<td>Hit, shake, rub</td>
<td>Jingles</td>
</tr>
</tbody>
</table>

**Lesson Format**

Each RoR chapter lesson format is presented in specific sections—shown with a box border as below—and designed to help classroom teachers understand the country’s background and history, a specific culture, as preparation for a discussion of a specific instrument and its rhythm. What follows is a brief introduction to these sections.

**Instrument, Country, and Flag:**

Some countries are well known throughout the world, like the United States and Japan. Others are not as well known, like Romania and Thailand, but all are important to the Roots of Rhythm. The name of each instrument is followed by a short description. In most cases, there is a short story about the flag that helps set the stage for a discussion about the culture.
Size and Population:
Most countries are relatively small compared to the United States, around the size of various states in the U.S. Populations vary widely, from very dense like Japan with 873 people per square mile to sparse like the Lakota people at 8 per square mile in South Dakota.

Geography and Climate:
Geographies range from flat deserts in Egypt to mountains and forests in Romania. Island countries like Cuba and Japan contrast to the land locked Lakota. Climates vary among the countries from wide variations in Japan to mostly hot and humid in Ghana.

Background and History:
Some countries in these lessons like Egypt date back to the dawn of civilization, while others like the United States are only a few hundred years old. Countries like Portugal, Turkey and Japan amassed enormous empires but were later reduced to their original size, often by overextending their resources and through wars. The Lakota people started as part of a larger American Indian nation, which covered a wide area, but have been restricted by treaties to living on reservations with a fraction of the land that they once occupied. Countries like Cuba and the United States were in great part built under colonial rule and with immigrant and slave labor, while the people who built Romania, Ghana and Thailand emigrated from adjacent areas in ancient times.

Cultures:
Some cultures like those of Portugal and Turkey had almost global impact through conquest. On the other hand, Cuba and Japan were heavily impacted by other cultures. In fact, rhythms and instruments from Ghana, Thailand, Japan, Portugal, and Cuba came into their respective cultures from a source outside that culture. Some rhythms and instruments are played mainly by women, like those on the adufe and sājāt, but most others are traditionally played by men. All rhythms and instruments represent part of the core of each musical culture.

Music: Instruments & Rhythms
Instruments: Most of the ten instruments are drums, since often idiophones perform a supporting role. A notable exception is the ranāt ēk, a xylophone used to conduct the ensemble. The djembē and kakko are drums that lead an ensemble, while others like the dondo and sājāt play supporting rhythms in the group. Some instruments are familiar like the djembē and bongos, but others are not like the buhai and naqqāra.

Rhythms: The rhythms represent signal communication (djembē) and language (dondo), strict layered rhythm (ranāt ēk) and free rhythm (kakko), sacred singing (adufe), secular dance (bongos), military marching (naqqāra), heartbeats (Lakota Drum), polyrhythms (sājāt), and animal sounds (buhai). Six are ancient rhythms and four are more recent examples. The following is an outline of the rhythms and examples by culture and country.
<table>
<thead>
<tr>
<th>Rhythm</th>
<th>Example</th>
<th>Culture/ Country</th>
<th>Instrument, Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talking</td>
<td>Speech on drums</td>
<td>Africa/ Ghana</td>
<td>Dondo, an hourglass talking drum</td>
</tr>
<tr>
<td>Signal</td>
<td>Signal to play drums</td>
<td>Africa/ Guinea</td>
<td>Djembé, a goblet-shaped signal drum</td>
</tr>
<tr>
<td>Layered</td>
<td>1, 2, 4, 8 counts</td>
<td>Asia/ Thailand</td>
<td>Ranāt ök, a xylophone conductor</td>
</tr>
<tr>
<td>Free</td>
<td>Bouncing ball</td>
<td>Asia/ Japan</td>
<td>Kakko, a rhythmic conductor</td>
</tr>
<tr>
<td>Religious</td>
<td>For spiritual songs</td>
<td>Europe/ Portugal</td>
<td>Adufe, a religious frame drum</td>
</tr>
<tr>
<td>Animal</td>
<td>Animal sounds</td>
<td>Europe/ Romania</td>
<td>Buhai, an animal friction drum</td>
</tr>
<tr>
<td>Human</td>
<td>Heartbeat</td>
<td>Americas/ S. Dakota</td>
<td>Lakota Drum, rhythm of the heart</td>
</tr>
<tr>
<td>Dance</td>
<td>3/2 clave beat</td>
<td>Americas/ Cuba</td>
<td>Bongos, a drum set for dancing</td>
</tr>
<tr>
<td>Polyrhythm</td>
<td>2 against 3 counts</td>
<td>M. East/ Egypt</td>
<td>Sājāt, ancient cymbals</td>
</tr>
<tr>
<td>Military</td>
<td>8 and 9 counts</td>
<td>M. East/ Turkey</td>
<td>Naqqāra, military kettledrums</td>
</tr>
<tr>
<td>Dance</td>
<td>Samba</td>
<td>Brazil</td>
<td>Pandeiro, frame drum with jingles</td>
</tr>
<tr>
<td>Military</td>
<td>Swiss Rudiments</td>
<td>Switzerland</td>
<td>Snare drum, cylinder with snares</td>
</tr>
<tr>
<td>Melodic</td>
<td>Calypso</td>
<td>Trinidad and Tobago</td>
<td>Steel drums, pitched metal</td>
</tr>
<tr>
<td>Additive</td>
<td>Tal Rupak</td>
<td>India</td>
<td>Tabla, kettledrums with a pitch</td>
</tr>
<tr>
<td>Friction</td>
<td>Scratch</td>
<td>U.S.A.</td>
<td>Turntables, electric friction sound</td>
</tr>
<tr>
<td>Meditation</td>
<td>Peace Building</td>
<td>Iraq</td>
<td>Frame drum with jingle modifier</td>
</tr>
</tbody>
</table>

**Listen & Play Along:**

This section is supported by the *Roots of Rhythm* Companion CDs and CD Notes. The CD provides musical examples for the focus lesson to support teachers and students in listening to and playing along with authentic music and also to provide a sound source for the notated rhythms in the Resources section. The CD Notes identify all sound tracks and provide valuable information about the recorded music. Use of the CD Notes is strongly recommended.

The notation of rhythms is intended for both the non-music and music teacher. It is based on a box system designed by Philip Harland in the early 1960s called Time Unit Box System or TUBS. It makes use of the boxes on graph paper to indicate the fastest counts of a slower rhythm, like millimeters are smaller units of centimeters. For example, if you have six boxes in a row, there are two slower even counts possible on one and four (see below). A notation in a box means that there is a hit on that count, and an empty box means rest for that count. Numbers and/or spoken phrases above each box are there to aid in counting the rhythm. When you read the TUBS rhythm through a few times, the sound should become clear, in a way similar to repeating phonetic spellings in a dictionary. TUBS notations, including percussion strokes for the right (R) or left (L) hand, are as follows:

1. **TUBS counting**
   - 1 2 3 4 5 6
   - R or L = hit a high sound, on edge
   - R or L = hit a low sound, in center
   - R or L = hit rim of drum or wooden drum body to get click sound
   - R or L = an extra loud hit or count

2. **X** = clap your hands or hit cymbals together
3. **Il, rr, rl, lr** = fast double hits
4. **Graphic shapes**
   - 🎵 = free or unmeasured rhythm (*buhai*, *kakko*, and Lakota Drum)
5. **c, d, e, f, etc.** = a piano’s white notes

In most cases the authentic instruments will not be commonly available, but substitutes can be used. Students can use everyday items, like a phonebook or spoons, as percussion instruments. If there is a music teacher or program in your school, check to see if substitute musical instruments are available as follows:
1. guiro and maracas
2. bongos
3. congas or djembé
4. bass drum
5. tambourines and frame drums
6. tom-toms and cuica
7. xylophone, glockenspiel, bells or piano
8. cymbals and cowbell

**Make Your Own Instruments:** In many cases you can make your own homemade version of the instrument. As a model, children in Ghana, West Africa make drums by stretching strips of pure gum latex from a rubber tree around a can, then wrapping it around a small stick for a beater. Instead of rubber, you can stretch PVC packaging tape around a solid frame like a can or flowerpot, but it has to be wrapped in a certain way. To keep an even thickness, wrap the tape in a crisscross pattern pulling it medium tight in a vertical direction and then very tightly perpendicular to the first direction. The only exception is the kakko, which has an additional tension system: in this case the tape should be pulled loosely in both directions and then tensioned with the string tape.

There are five steps to making a drumhead on a can or frame. This begins with an “anchor,” or a piece wrapped around the can so that the drumhead has a good surface on which to stick.

1. Wrap the anchor around the drum body just below the opening or “mouth” of the drum.
2. Attach the first piece for making the drumhead across the middle of the drum’s mouth.
   NOTE: Pull each piece in four positions: stick the tape to the anchor (A), stretch it above the opening (B), pull it over to the other side (C), and stick it on the side’s anchor (D).
3. Finish taping the vertical direction with PVC tape following Step 2 for each piece.
4. Stretch the tape in the horizontal direction, but this time after first attaching the tape to the anchor, pull it very tightly over the opening (B) with each piece following Step 2.
5. For the beater, wrap a wad of tape around both ends of a chopstick, twig, or a ¼” by 9” long dowel then cover it with tape, like a wrapper on a small lollipop.

**Resources:**
The last page of each lesson gives the reader a graphic reference for understanding the instrument, usually in the context of the percussion section with which it is associated. This page, which can be used as a student handout, shows the various rhythms in a TUBS, a graphic, or a dot notation, and includes descriptive notes on how to play the rhythm and instrument.
Extensions:

Extensions are a featured section of Roots of Rhythm: Volume II. These sections use text, graphic illustrations, charts, and photographs to compare and contrast each of the five RORE instruments with other world percussion instruments; mainly the ten presented in the Roots of Rhythm. Each Extensions section begins with an expanded cultural/technological history of the instrument and its relation to instruments that either influenced it, were influenced by it, or simply share an important common physical or musical structure.

The Extensions sections include a discussion of how the featured instrument relates either directly, indirectly or coincidentally to other instruments. Direct relationships refer to cultural contact between two geographic areas where individuals have taken instruments or ideas from one place to another, and where that information has led to the development of a new instrument. Indirect and coincidental relationships refer to shared features that may not have developed through direct cultural contact, but can help demonstrate how instruments might have “generic” relationships to other percussion as independent inventions.

The following categories are used to determine and discuss the nature of these extended relationships and similarities among the world’s percussion instruments:

1. Design/Construction
2. Quality of Sound
3. Playing Techniques
4. Musical Application

Funsheets:

Funsheets are two-page worksheets that reinforce the educational content of each of the 16 Roots of Rhythm chapters. Funsheets can be used in conjunction with the Roots of Rhythm curriculum or as stand-alone worksheets by your students from the 1st through 6th grade levels and include in five types of activities:

1. Decorate Your Instrument
2. Make and Play Your Instrument
3. Facts and Opinions
4. Compare and Contrast
5. Fill It In

Roots of Rhythm is an innovative cross-curricular program that offers teachers and students an enjoyable educational experience. It provides an exploration of fundamental rhythms, both ancient and modern, from around the world. This approach expands on the experience of playing music, taking it outside of the music room into the general classroom with simple hands-on activities. Roots of Rhythm brings several developmental benefits including higher academic achievement, improved physical coordination, deeper concentration skills and greater self-discipline. The curriculum intends to enhance social skills, improve a student’s self-image and boost self-confidence. In the end, participants learn that people from diverse cultures are linked together through percussion music. Students and teachers experience the therapeutic, recreational, and even spiritual effect of playing rhythms on percussion instruments from around the world.
**Instrument:**
*Adufe*, a religious frame drum

**Country:**
Portugal

**Flag:**
The band of green means hope, and red stands for the blood of the country’s heroes. The coat of arms recalls historic castles and Portugal’s victory over the Moors in 1139.

**Size and Population:**
Portugal has 34,340 square miles not including the Azores or the Maderia Islands. There is 458 miles of coastline with most of it on the west coast. The estimated population as of July 2013 is 10,799,270, ranked 80th in the world.

**Geography and Climate:**
Portugal is on the westernmost part of the Iberian Peninsula with Spain. It is mostly flat land just above sea level. There are mountain ranges in the northeastern, central and southwestern regions. The Coastal Plains support farming and fishing on the Atlantic Coast. On a huge plateau that extends into Spain, farmers grow crops and raise livestock. Two rivers cross the country from east to west, and the Tagus River in the center empties into the Atlantic Ocean at Lisbon, the capital, and divides the country.

Generally mild, in the spring and summer Portugal is warm and dry. Snow covers the highest northern mountain ranges several months each year. Average temperatures range from 70° F in July to 50° F in January. Precipitation ranges from 55 inches in the north to 20 inches in the south.

**Background and History:**
The area of Portugal was originally occupied by the Phoenicians thousands of years ago. The area came under control of the Roman Empire around 200 B.C. Over the next few hundred years Latin, the Roman language, became the basis of the Portuguese language, and Romans established cities, built roads, and developed the area as Roman Catholic. Roman rule ended with the invasion of northern Germanic tribes but Christianity remained.
In 711 A.D. the Iberian Peninsula was invaded and subsequently ruled by Muslims, called Moors (named Maurs, from Mauritania, northwest Africa). Under Islamic rule Arab-influenced buildings were constructed, new crops were introduced, and education and roads were improved. Many Christians opposed Muslim rule and fought to retake their land for hundreds of years. The Portuguese won freedom from Arabic rule in 1139 and Portugal became an independent kingdom in 1143, but the dominance of Arabic culture for over 400 years had been very influential.

By 1415, the Portuguese had acquired much knowledge about navigation, shipbuilding and the sea as traders and fishermen and had sailed far into the Atlantic Ocean. From 1450 to 1550 the Portuguese began epic voyages to discover ocean routes to India, Brazil, China, and Japan, and simultaneously began settlements on the east and west coasts of Africa, extending Portuguese influence almost all the way around the world. The country controlled a vast overseas empire and gained great wealth from its colonies in the form of gold, diamonds, colonial crops and participation in the African slave trade. In 1580 Spain invaded Portugal and ruled until 1640. However, Portugal thereafter was too small a nation to control a global empire and other nations including England, France and the Netherlands began to take control of Portuguese colonies. No other foreign powers ruled in Portugal after 1811. Portugal lost its wealthiest colony, Brazil, in 1822.

In 1910 the Portuguese established a republic and by 1928 Oliveira Salazar began a forty-year rule as a dictator. In the 1960s, Portugal's African colonies rebelled against outside rule. Around 1974 dictatorships ended, almost all colonies gained independence, and there were free elections in Portugal. The country became a member-country of the European Union in 1986, and Portugal currently enjoys steady economic growth. In 2006, President Anibal Cavaco Silva became President. In 2011, Prime Minister Pedro Manuel Mamede Passos Cholho became head of government.

**Culture:**

The people of Portugal are a mixture of the various ethnic groups, ranging from the Greeks and Romans to the Visigoths and North African Muslims, which have occupied the country at various times over the past 5000 years. Over the past forty years many Africans from Portugal’s colonies have moved to Portugal, forming the only minority. Most Portuguese are rural farmers and coastal fishermen and keep close family ties. Some rural people dress in ancestral clothing including berets, stocking caps, and baggy clothes among the men and long skirts and shawls for the women. People enjoy folk songs, bullfights (the bull is not killed) and soccer. Over 50,000,000 people speak Portuguese. Outside of Portugal, Portuguese is the national language of Brazil in South America, and Mozambique and Angola in Africa.

Most Portuguese are Roman Catholic and people enjoy religious celebrations, pilgrimages, and processions. There are pilgrimages for healing to the town of Fatima, famous for the reported appearance of the Virgin Mary in 1917. Education in the country is not strong and in most cases children after the age of 14 need to begin work. The largest of ten universities is in Lisbon.

The arts have been heavily influenced by the Catholic Church, royalty, and the country’s love of the sea. The folk music ranges from lively dance songs like *chulas* (choo-las) and *viras* (ver-las) to sad songs like *fados* (fah-dos) sung to a guitar accompaniment. The focus instrument for the Portugal lesson, the *adufe* (ah-doof) drum, is used in religious and folk celebrations. This
instrument reflects many aspects of the Portuguese culture, particularly since it came from the Muslim occupation after 711 A.D.

**Music: Instruments & Rhythms**

**Instruments:** There are many types of traditional musical instruments in Portugal. In addition to bagpipes and flutes there is the violin called *rabeca chuleira* (rah-bek-ah choo-lee-air-ah), the traditional antique guitar called *cavaquinho* (cah-vah-keen-hoh), the friction drum called *sarronca* (sah-rong-kah), and the square frame drum called *adufe*, the last of these being the focus of this lesson. Because of their small size, several types of instruments were taken to foreign lands by sailors. Among these were both the *rabeca chuleira* and *adufe*.

The *adufe* is a square or rectangular pine frame drum from 12 to 22 inches on a side and around 1 to 2 inches thick. There is a drumhead on each side made of goatskin and the two sides are sewn together or nailed on to the frame. Before the heads are attached the drum maker will place objects inside the drum to rattle when the drum is struck or shaken. These objects might include bells, dried seeds, bottle caps, a gut snare or even small metal nuts or jingles.

The drum was introduced into the Spanish and Portuguese cultures by the Moors of North Africa beginning in the early 700s A.D. The *adufe* is found mainly in three different regions of Portugal and the way of making it is different in each one. In Alentejo, a tanned pig’s bladder is used for the skin while in Tras-os-Montes, a goatskin called “samara” (sah-mah-rah) is used. The drum is decorated with bits of ribbon on each corner of the frame.

The name *adufe* probably came from the Arabic name “duff” or “deff.” During the Middle Ages this term was used for round and square frame drums. In Arabic the definite article “al” added to the word “duf,” becomes “adduf.” In Spain and Galicia (northwestern Spain) the square frame drum is called “pandeiro” (masculine). This name is related to the Persian-Arabic name *bendayer* (ben-dair), a kind of frame drum. The *adufe* is also known as *pandiero quadrado* (pon-dee-air-oh quah-drah-doh). It is similar to a square frame drum found in Egypt that dates back as far as 1400 B.C. Triangular drums are also found on the Iberian Peninsula.

The drum continues to be very popular in the west central Beira Baixa province. It is used in the religious celebrations known as “alvarissa.” *Adufe* players drum outside the door of the local church, but also in town festivals, local dances, and on Sundays for relaxation. It is also used during work in the fields. The instrument is usually played by women, and is used to accompany religious songs, festival songs and ceremonies. It is also played by men but not during religious events. The drum accompanies the *charamba* (cha-ram-bah), a Portuguese circle-dance performed by couples. *Adufe* players are called *adufeiras* (ah-duh-fee-air-ahs).

One famous woman *adufeira* is Catarina Chitas (1913-2003) from the Beira Baixa region. There is now a famous Portuguese group named *Adufe* that made very large versions (several feet on a side) of the *adufe* for stage performances that were inspired by Japanese *taiko* (tie-koo) drummer performances. Professional frame drummers around the world now use the *adufe* as a standard part of their instrumental performances. A large meeting of *adufeiras* took place in the north central town of Niza, Portugal in 2003, and global interest in this ancient instrument continues to expand.
The *adufe* is held between the thumbs of each hand and played with two types of strokes: 1) the full hand hits and rebounds off quickly, creating a low tone; and 2) the full hand’s fingers slap the head staying on to stop the sound from ringing, creating a high tone. The Spanish version can be played in a sitting position with the frame and skin struck by a stick in the right hand and the skin struck with the left hand. Percussionists will sometimes clap the rhythms to practice, but in some cases, especially in the Berber tradition, clapping is the main way a rhythm is performed.

**Rhythms:** The *adufe* rhythms came from the Moorish Berber tribes of North Africa and they are the basis of many current Portuguese rhythms. Two important rhythms for the Portuguese *adufe* are the *ritmo de passo* (reet-moh deh pah-so), or “stepping or passage rhythm,” in 4 or 8 counts and the *ritmo de roda* (reet-mo deh roh-dah), or “round or wheel rhythm,” in 3 or 6 beats. When the *ritmo de passo* has four counts, the repeated rhythm sounds like “low, low, high, high.” When the *ritmo de roda* has three counts, the repeated rhythm sounds like “low, low, high.” The six and eight count versions of these beats have a double low sound on counts three and four (see the Resources section below). The rhythms can be played either slow or fast.

When the Portuguese colonized Brazil in 1500, the *adufe* was taken to that country with the sailors. More recently, the rhythms of the *adufe* influenced the development of samba rhythms, making a distinct sound that the public recognized. The *adufe* drum and its rhythms have traveled to many countries!

**Listen & Play Along:** *Use Roots of Rhythm CD Notes to support this section.*

*Note to teachers: if instruments are not readily available, consider having students make their own (a general activity for making drums can be found in the Roots of Rhythm: Introduction section, and a specific adufe-making activity can be found below) or encourage them to improvise - using everyday items such as buckets, containers, phone books, desk tops, etc., as instruments. Rhythms can also be created with body percussion including hand clapping, foot tapping, finger snapping, etc.*

Listen to Tracks 1-2 of the Roots of Rhythm Companion CD to hear the sound of the *adufe*. Now it’s time to play the *adufe*. First, you’ll need a drum to play (see the exercise below for making an *adufe*, or use other percussion instruments if you are unable to find or make the drum). Once you have an instrument, play your drum along with the rhythms on Tracks 1-2 of the *Roots of Rhythm* Companion CD, and first simply try to get a high sound, and a low sound. Use your hands, or if suitable, use sticks. The closest thing to the square *adufe* is a standard tambourine. Remember, the *adufe* also has rattles or jingles like the tambourine, but they are enclosed inside between the two drumheads.

Once you find the high and low sounds on your drum, you can begin to work on the specific *adufe* rhythms demonstrated on Tracks 3-10 of the *Roots of Rhythm* Companion CD. These rhythms are also shown in the box notation in the Resources section, for drumming with three, four, six and eight counts. The two basic rhythms are *ritmo passo* and *ritmo roda*.

**Making Your Own Adufe:** You can make your own *adufe* with some simple tools and materials by following seven steps. Remember, when you stretch the tape around the frame, pull it tightly. Listen to the sound of the *adufe* on Tracks 1-2 of the *Roots of Rhythm Companion CD* and see if your homemade version sounds the same.
ROOTS OF RHYTHM - CHAPTER 1: THE ADAFE FROM PORTUGAL

| Tools:         | Hammer                  | Hacksaw to cut wood | Scissors |
|               | Pencil to break PVC tape| Sandpaper           |
| Materials:    | Wood 1” x 2” x 12” - two| Box nails 1 ¼” - four | PVC tape – one roll |
|               | Wood 1” x 2” x 10 ½” - two| Talcum powder       | Pebbles, beans, seeds |
|               | Wood dowel 3/8” x 10”   | Ribbon - several colors | Thumb tacks - four |

Seven Steps for Making an Adufe:
1. Cut wood in four measured pieces and sand each piece.
2. Hammer 1 nail in each end
3. 2 more nails go in the opposite end
4. Wrap tape down frame on the nail end
5. Wrap tape across frame, opposite way
6. Tack several strips of ribbon on the drum’s corners for decoration
7. Sand the stick ends round

NOTE: In step 4, add talcum powder inside to remove stickiness, then add rattles before adding the last strip.

**Adufe and Performers:**

Photograph by Craig Woodson.

*Adañas* from Portugal.
Photograph by Benjamim Pereira.
**Resources: The Adufe Ensemble & Rhythms**

12-inch Adufe  14-inch Adufe  16-inch Adufe

*Passo* Rhythms in 4 and 8 counts and *Roda* Rhythms in 3 and 6 Counts

### Ritmo Passo

<table>
<thead>
<tr>
<th>For the 16”</th>
<th>Adufe Say</th>
<th>“low low high high”</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Four Counts</strong></td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>12”</td>
<td>L R R R</td>
<td></td>
</tr>
<tr>
<td>14”</td>
<td>L R L R</td>
<td></td>
</tr>
<tr>
<td>16”</td>
<td>L L R R</td>
<td></td>
</tr>
</tbody>
</table>

### Ritmo Roda

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<th>“low low high”</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Three Counts</strong></td>
<td>1 2 3</td>
<td></td>
</tr>
<tr>
<td>12”</td>
<td>L R R</td>
<td></td>
</tr>
<tr>
<td>14”</td>
<td>L L L</td>
<td></td>
</tr>
<tr>
<td>16”</td>
<td>L L R</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For the 16”</th>
<th>Adufe Say</th>
<th>“low…. low-low high….high….”</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eight Counts</strong></td>
<td>1 2 3 4 5 6 7 8</td>
<td></td>
</tr>
<tr>
<td>16”</td>
<td>L R L R R R</td>
<td></td>
</tr>
<tr>
<td>14”</td>
<td>L L L R R</td>
<td></td>
</tr>
<tr>
<td>12”</td>
<td>L L R R</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For the 16”</th>
<th>Adufe Say</th>
<th>“low….low-low high….high….”</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Six Counts</strong></td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>16”</td>
<td>L R L R R</td>
<td></td>
</tr>
<tr>
<td>14”</td>
<td>L L L R</td>
<td></td>
</tr>
<tr>
<td>12”</td>
<td>L L R</td>
<td></td>
</tr>
</tbody>
</table>

Please note:
1. The *passo* and *roda* rhythms are shown for a right-handed percussionist.
2. R or L means play the low or rebound hit on the drum; R or L means play a high damp or slap.
3. R or L means hit the wooden rim of the drum with the stick.
4. The arrows show how the basic rhythms with three or four counts can expand to a more embellished rhythm with a double low on beats three and four on six and eight count rhythms.
5. The traditional speed for the 4-count and 3-count rhythm is four boxes per second.
The *adufe* is a square or rectangular frame drum played in Portugal. It is usually played by women called *adufeiras* in religious festivals or sometimes at social events to accompany singing. The drum came to Portugal from Arabic countries when Muslims occupied the area of Spain over 1000 years ago. Since it can be made in a small size, it was carried on ships for entertainment when Portuguese explorers traveled to Asia and South America between 1450 and 1550. In Brazil, the *adufe* helped to start the rhythm known as samba. The drum has two drumheads of goat skin that are sewn on to a wooden frame. Inside there are beads that rattle. The instrument comes in many sizes and is decorated with ribbons. Some versions of the *adufe* have painted decorations on the drumhead itself.

**Directions.** Think about various designs that could be drawn on the surface of an *adufe*. Consider ways to represent the country of Portugal, for example, through artwork shown in the photographs. First, list some of your ideas in the spaces below and then draw your designs on the four *adufe* shapes on the next page.
Directions: First, draw your designs on the two-dimensional surface below in pencil, and then add color (front and back). Second, do the same things but now do it on the three-dimensional surface (front and back), and don't forget the sides.
Instrument:
Bongos, a drum set for dancing

Country:
Cuba (ku-ba)

Flag:
The star stands for independence.

Size and Population:
The country is 42,804 square miles with 2,100 miles of coastline. It is slightly smaller than Pennsylvania. The population of Cuba is estimated at 11,061,886 as of July 2013; ranked 77th in the world.

Geography and Climate:
The Cuban mainland is the largest and westernmost island of the West Indies. About 90 miles south of Florida, Cuba consists of one large island and more than 1,600 smaller ones. With towering mountains and rolling hills covering a quarter of the country, the rest consists of mainly gentle slopes and grasslands. The fertile soil is primarily red clay and provides rich farmlands for crops and pastures. The heavy forests, consisting mainly of pine trees, exist in the southeast.

There are over 200 rivers and streams in Cuba, but most are not navigable. Among the 200 harbors, two important ones are at the capital, Havana, on the north coast and at the U.S. controlled Guantánamo Bay on the south coast.

Cuba has a semi-tropical climate and breezes keep the island mild throughout the year. Temperatures range from 70° F in the winter to 80° F in the summer. The country’s dry season lasts from November to April and during the remaining wet season certain areas can get up to 54 inches of annual rain. Strong hurricanes often hit the islands during the fall months.

Background and History:
In 1492, Christopher Columbus landed in Cuba and claimed it for Spain. Spaniards began settling farms there in 1511 and six years later the first enslaved Africans arrived. Most of the original Indians that lived on the island died of disease or fieldwork as large plantations grew. During the 1800s, Cubans revolted against Spanish rule, and after ten years of open rebellion, Spain promised reforms in 1878. Slavery was abolished eight years later but another revolution broke out in 1895 and this time the United States helped Cubans defeat Spain in 1898. After
several years of American rule, Cuba became a republic with its first president Tomas Palma in 1902. The U.S. had to reoccupy the country after another rebellion but left the country to Cuban control in 1909. A treaty in 1903 gave the United States a permanent naval base at Guantánamo Bay. Following the rule of other Cuban presidents, Fulgencio Batista overthrew the government and controlled the country as a dictator almost continually from 1934 to 1959.

In 1959, Fidel Castro overthrew the Batista government and at first the U.S. supported this change, but the Cuban revolutionaries seized American owned sugar and cattle farms, ending attempts at good relations between the countries. Cuban exiles in America failed to take back the country even with U.S. help in the early 1960s and until recently the Soviet Union has supported Castro’s communist state. Outside of Cuba, Castro supported African states that favored communism but that ended in the 1990s. While relations between Cuba and the United States have remained strained since the 1960s, each of the countries established diplomatic offices in the other in 1977.

Since the Castro revolution hundreds of thousands of Cubans have fled the country, and most of them have settled in the United States. Despite the fall of communist control of the Soviet Union and a lifting of restrictions in many communist countries, Castro has maintained a communist state, criticizing these international changes while keeping tight control of his country.

Over the past several decades, Castro has given considerable financial support to traditional Cuban artists. In 2008 Gen. Raul Castro Ruz became president when Fidel Castro stepped down due to health. In February 2013, he was re-elected president.

**Culture:**

Cuba is a mixture of Spanish and African cultures. Those from Spain came from the southern Andalusia area as settlers and those from Africa came mainly from the Yoruba area of Nigeria as captives for slavery. About 65 percent of Cubans are white and of Spanish decent and the rest are of African heritage, or have a mixture of white and black backgrounds. About three fourths of Cubans live in the cities and towns. Most Cubans speak Spanish and some in the cities speak English. Before Castro’s revolution the mostly poor rural population got very little help from the government, but afterward received support for housing, food, and education. Government leaders encouraged extreme patriotism among the population, and Cuban artists have benefited from this policy since folk music expresses local culture. The government sponsors free ballets, plays, and other cultural events, and government scholarships help young people in arts centers. One writer in particular, Fernando Ortiz, has studied and written many volumes about the folk music traditions of Cuban blacks. On the other hand, officials have imprisoned some writers who have been critical of other national policies.

Most Cubans are Roman Catholic but the church is not strong. The government has taken over most church schools and forced many priests to leave the country. Several Christian religions have been banned by the government. Some Cubans believe in *Santería* (san-tah-ree-ah), a religion that combines traditions of Africa and Roman Catholic ceremonies. Enslaved Africans who were brought to Cuba had greater freedom than those who entered the U.S. These freedoms included playing music, practicing religion, and performing ceremonies derived from their African origins. For example, they combined African and European traditions, believing that Catholic saints represent African gods. Cuban composers have combined African and European traditions to produce a powerful and very influential folk music.
After the blockade of Cuba in 1958, no more new musical forms came out of Cuba since musicians could not travel freely in and out of the country. As the international influence of Cuban music slowed, the music of other South American countries emerged like the Brazilian 
*bossa nova* (bah-sah noh-vah) and the Colombian *cumbia* (kum-bee-ya). Traditional Cuban music stayed alive, however, and has been performed in New York and other America cities for many decades. The emergence of salsa music is a direct result of Cuban traditions.

**Music: Instruments & Rhythms**

**Instruments:** There are many types of musical instruments used in Cuban music including the guitar, trumpet, flute, bass, and piano. However, percussion instruments are the rhythmic core of Cuban music. A percussion section often consists of a set of conga drums in three sizes also known together as *tumbadora* (tum-bah-door-ah), a cowbell or *cencerro* (sen-sair-oh), a scraper or guiro (gwir-roh), two thick sticks called claves (kla-vez – clave is also a type of rhythm), timbales (teem-bol-ez), two metallic open ended shallow drums, and bongos, two small, single-headed drums. Each conga drum has its own name from the smallest sized *quinto* (keen-toh), to the medium sized conga, to the large sized *tumba*. Also there are two thin sticks called *palitos* (pa-lee-tos) used to hit the side of a conga drum or a wooden chair as a second clave rhythm.

Our focus instrument for Cuba is the bongos, conical or cylindrical single-headed drums made from hardwood shells often hollowed from a tree. The skin or plastic drumheads are nailed on or have tunable screws, and are intended to be a fourth apart (the musical distance of four white notes on a piano). They are played with the hands and fingers, often with a sharp blow like a drumstick. The bongos were invented around 1900 to provide a high-pitched sound for small ensembles. Usually the large drum is placed on the players right side with the instrument held firmly between the legs at the knees. Virtuoso performers can get slide effects and tonal changes from the fingertips, flat fingers and butt of the hand.

Musical instruments in Cuba have been influenced by ideas from West Africa, received through captive Africans over a period of several centuries. It is quite likely that the idea of drums in a set of two, like the bongos, came from the African idea of a drum set with low and high pitches. In Africa the high and low sounds often stand for a female or mother’s high voice and a male or father’s low voice. African drums in a group are like the members of a family, and this idea carried over through slavery into the music of Cuban drumming.

**Rhythms:** There are many types of rhythms in Cuba including the son, the cha-cha-cha, the mambo, and the rumba. The rumba is an example of Afro-Cuban rhythms because the beat that begins the rhythm (known as the clave) came from Africa. Our rhythmic focus here is the rumba, a type of dance music that combines African and Cuban influences called rumba *guaguanco* (gwah-gwong-koh).

The clave beat is a pattern you may have heard in the movie “Roger Rabbit”; it has a three/two structure and can be repeated with the words, “Shave and a hair cut….two bits.” (referring to when a man could get a shave and hair cut for 25 cents). Many rock artists, one of the most famous being Bo Diddley, have used the clave rhythm. The “Bo Diddley rhythm” became very famous in the early days of rock and roll in the 1950s and continues today. For example, Gloria
Estefan remembers her Cuban heritage in the 1991 song and music video “Mi Tierra” (me tee-air-ah). The beat that she is using in this song is the clave beat for rumba guaguancó (rum-bah gwah-gwong-koh).

Rumba is party music performed and enjoyed by many Cubans. It is thought that this music came from the suburbs after the abolition of slavery in 1886. After moving to the cities, former slaves moved into crowded areas, and in the courtyards where they lived and socialized they created group feasts called “rumbas.” There are several types of rumbas, the older, slower yambú (yom-bu), the rapid columbia (co-lum-bee-ah), a men’s dance, and guaguancó, a dance of seduction, courtship and desire. Guaguancó dancers move in a game of attraction and separation, and songs tell of Afro-Cuban life from love to death, nationalism to social problems, and courtship to friendship. It features vocalists and call and response, a technique used by singers and instrumentalists to engage the performers and audience in the performance. In the notation later provided in the Resources section of this chapter, you will see how the clave rhythm is played by other members of the drum ensemble. Songs are in both Spanish and African languages. The martillo (mar-tee-oh) rhythm is the main pattern played on the bongos and it can be used in the rumba guaguancó. The word martillo means “hammer” in Spanish and is used as a dance rhythm in Cuba. This rhythm was used in many types of Cuban popular music, and became well known through the TV theme song from “I Love Lucy” (a sitcom that was very popular in the 1950s) played by the band of Lucille Ball’s Cuban husband, Desi Arnez. Today the martillo rhythm can be heard in marching band drum cadences, especially those in the movie “Drumline.” To play the palitos or “little sticks” rhythm will require some good rhythmic skills.

Listen & Play Along: *Use Roots of Rhythm CD Notes to support this section.
Note to teachers: if instruments are not readily available, consider having students make their own (a general activity for making drums can be found in the Roots of Rhythm: Introduction section, and a specific activity for making bongos is described below) or encourage them to improvise - using everyday items such as buckets, containers, phone books, desk tops, etc., as instruments. Rhythms can also be created with body percussion including hand clapping, foot tapping, finger snapping, etc.

Listen to Tracks 11-12 of the Roots of Rhythm Companion CD to hear the sound of the bongos. Now it’s time to play the bongos. You can also use conga drums or other percussion instruments to play along with music on the Roots of Rhythm Companion CD. Or, if you don’t have these instruments, make your own substitutes (see activity below for making homemade bongos). In one type of Cuban rumba, performers use a wooden box to beat the rhythms. You could find several sizes of cardboard boxes to get the various sounds of the ensembles. Also, you can use a tin can with ridges and scrape it with a pencil to make the sound of the guiro.

Listen to Tracks 13-24 of the Roots of Rhythm Companion CD and play along with the rhythms. To begin, just try to have fun!

Now read the box notation in the Resources section that shows each of the various percussion parts of the ensemble and begin again with the clave beat.
You could begin by clapping the rhythm of the clave part and having another person clap the guiro rhythm.

Add the steady martillo beat of the bongos. Notice how the bongos have a fast, steady part in the rhythm of rumba guaguánco.

Move down the various rhythms of the tumbadora, but start with the conga, then play the tumba beat. Notice how these form a question or call.

Play the quintó part and see how it forms the answer to the question or a response.

If you have strong rhythmic ability, try the palitos rhythm on the side of a drum, or any wooden surface (that won’t scratch).

Try the solo variations on the bongos at the bottom of the Resources section.

→ Making your own bongos: Make your own set of bongos with two coffee cans of different sizes taped together. The large number 10 can and a medium can work very well. You can either use the rubber lids that come with the can, or stretch PVC packaging tape across the top in a tic-tac-toe pattern for drumheads as described in the introduction to these lessons. In either case you should take off the bottom metal end—be sure to hammer flat any sharp edges left after removing the lid. You can hit the drums with your fingers or with 10-inch long dowels (1/4 inch diameter) as beaters. New pencils can be used for beaters as well.

**Bongos and Performer:**

Photograph by Craig Woodson.
Resources: The Rumba Guaguanco Ensemble and Rhythm

Rumba Guaguanco

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<th>Count</th>
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<tr>
<td>Clave</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>L</td>
<td>R</td>
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<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td></td>
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<tr>
<td>Palitos</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>L</td>
<td>R</td>
<td>L</td>
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<td>L</td>
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<td>L</td>
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<td>L</td>
</tr>
<tr>
<td>Guiro</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
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<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Bongos</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
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<td>L</td>
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<tr>
<td>Quinto</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
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<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Conga</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
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<td>R</td>
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<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Tumba</td>
<td></td>
<td>L</td>
<td></td>
<td>L</td>
<td></td>
<td>L</td>
<td></td>
<td>L</td>
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<td>L</td>
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<td>L</td>
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<td>L</td>
</tr>
</tbody>
</table>

Please note:

1. This is shown for a right-handed percussionist.
2. The clave rhythm for rumba guaguanco is slightly different from the normal clave beat. It has hit #7 on hit #8 (shown here in italics); it is ok to use the normal clave pattern without hit #8. This version, known as 3/2 clave, is common in Puerto Rico.
3. The dotted vertical lines show how the clave part lines up with the quinto, conga, and tumba parts.
4. R or L means play the low or open tone on the drum; R or L means play a high tone.
5. A bold letter means to accent or hit that beat harder.
6. The quinto part is the lead or solo player, and that person’s part can vary. The conga and tumba support the quinto player by keeping a steady pattern. Notice that the quinto rhythm fills in an empty place in the pattern of the conga and tumba parts.
7. The conga or middle drum is also called the segunda or tres golpes.

The bongos keep a steady rhythm throughout as a support rhythm but can also play solo variations. For example,

Bongos’ Martillo Rhythm - Basic Rhythm and Solo Variations

<table>
<thead>
<tr>
<th>Basic rhythm</th>
<th>R</th>
<th>L</th>
<th>R</th>
<th>L</th>
<th>R</th>
<th>L</th>
<th>R</th>
<th>L</th>
<th>R</th>
<th>L</th>
<th>R</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solo #1</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
</tr>
<tr>
<td>Solo #2</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
</tr>
<tr>
<td>Solo #3</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
</tr>
</tbody>
</table>
The bongos are two small drums that are attached to each other and are played with the hands or with sticks. They were invented around 1900 to be used as high-sounding drums in small bands in Cuba for dance music, although the idea for the two drums probably came from Africa where a low drum imitates the sound a father's voice and the high drum the sound of the mother's voice. Now played all over the world, bongos have been used in many types of music, including salsa, jazz, rock and roll, hip-hop, and classical styles.

**Directions.** Make your own bongos with two cans, one small and one large, each with a plastic lid. If you don’t have cans, and if you get permission, you could use two books of different thicknesses. For the tin can bongos, first be sure that there are no sharp edges left from opening both of each can's metal lids and hammer them down if necessary. Next, clean and dry the cans and then tape them together. Put on the plastic lids and play your bongos with pencils or your fingers.

**Play and Compose Bongo Rhythms.** The main rhythm for the bongos is called martillo which means "hammer." You can see this eight-count rhythm below in the box notation. The small drum is the high sound and the large drum is the low sound. Try this rhythm to warm-up and then compose your own martillo rhythms using the box notation on the next page. Use an R for the right hand hits and an L for the left hand hits. Leave a box empty if you want a rest or no sound. Listen to examples of the martillo rhythm on the Roots of Rhythm CD.

<table>
<thead>
<tr>
<th>Count</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small drum</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>Large drum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R</td>
</tr>
</tbody>
</table>
## Bongo Rhythms

<table>
<thead>
<tr>
<th>Title</th>
<th>Bongo Rhythms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. _______________ Count</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Small drum</td>
</tr>
<tr>
<td></td>
<td>Large drum</td>
</tr>
<tr>
<td>2. _______________ Count</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Small drum</td>
</tr>
<tr>
<td></td>
<td>Large drum</td>
</tr>
<tr>
<td>3. _______________ Count</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Small drum</td>
</tr>
<tr>
<td></td>
<td>Large drum</td>
</tr>
<tr>
<td>4. _______________ Count</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Small drum</td>
</tr>
<tr>
<td></td>
<td>Large drum</td>
</tr>
<tr>
<td>5. _______________ Count</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Small drum</td>
</tr>
<tr>
<td></td>
<td>Large drum</td>
</tr>
</tbody>
</table>
Instrument: 
*Buhai*, an animal friction drum

Country: 
Romania

Flag: 
The national coat of arms (formerly centered in the yellow band) has been removed by the government.

Size and Population: 
Romania has an area of 91,700 square miles (slightly smaller than Oregon) with 130 miles of coastline. Its estimated population as of July 2013 was 21,790,479; ranked 56th in the world.

Geography and Climate: 
Romania is in southeastern Europe, bordering the Black Sea, between Bulgaria and Ukraine. It borders Bulgaria, Hungary, Moldova, Yugoslavia, and Ukraine (north and east). Romania is in the northern part of the Balkan Peninsula and its territory is marked by the circular Carpathian Mountains and the Danube River on the southern border, which runs into the Black Sea. Romania lies midway between the Equator and the North Pole. There are six regions in the country: Walachia and Dobruja (south), Banat, Transylvania, and Moldovia (center), and Bukovina (north).

Romania has hot, sunny summers and cold, cloudy winters. Various levels of moisture range from 40 inches in some mountain areas to less than 20 inches on the plains.

Background and History: 
Romania, meaning “land of the Romans,” was called *Dacia* around 300 B.C. The Roman Empire conquered the area around 106 A.D. and developed it considerably by building roads, bridges, and a great wall. They were forced out after 100 years by invading tribes, including the Goths, Huns, and Slavs, and after the Romans left various tribes stayed and began living there. Many of today’s Romanians are descendents of these tribes and the Romans. Other invasions by barbarian tribes prevented unification, but by 1350 the regions of Walachia and Moldavia had formed independent states. For centuries these two regions were under the political control of the Turkish Ottoman Empire, but these areas finally secured their autonomy in 1856.

Romania became an independent country in 1861 when Walachia and Moldavia joined. Just after the World War I, Transylvania and other surrounding lands were added to Romania, almost doubling its size. During World War II, Romania first fought for the Germans and then switched
to the side of the Allies. In 1947, Romania became an official communist country and soon after, the U.S.S.R. had complete control of the country. A new 1965 constitution stressed local control of the country, and in 1989 the Communist leadership was overthrown. In 1990 Romania held national elections and a non-Communist party took control. Romanian, the official language, is the only Eastern European language that comes from the Roman Latin.

**Culture:**

Romanian culture is largely derived from the ancient Romans, with strains of Slavic, Hungarian, Greek, and Turkish influence. Poems, folktales, and folk music have always held a central place in Romanian culture. Although Romania has been influenced by trends outside the country, it also has a rich native culture, much of which was influenced by the music of Gypsies, nomadic tribes who once wandered through the country by the thousands. An important part of Romanian culture is a variety of festivals that celebrate weddings, christenings, and holidays.

One festival in particular correlates to a new vegetation cycle around the beginning of the New Year. This exuberant folk festival, which celebrates the passing from one year to another, is marked by a 12-day cycle (December 25 – January 6). The 12 days symbolize the 12 months of the year. During this period, the year grows up, gets older and finally dies. All the rituals from these 12 days are meant to symbolically restore the world.

One of the most important traditions associated with this folk cycle is “Plugusorul” (plue-guh-so-rul - a small plow), one of the oldest and most beautiful Romanian traditions performed in Walachia and Moldavia. It is an old agricultural custom, which symbolizes the main occupation of the peasants. On New Year’s Eve or even on New Year’s Day, a group of men, having whips, bells and either a plow or a buhai (boo-hi), a friction drum, go through the village, wishing agricultural wealth. Two or four oxen, also decorated, pull the plow. In this tradition, carol singers recite the plowing carol, accompanied by whip snaps, buhai noises, shouts, and sometimes flutes and other musical instruments. The plowing carol is a long recitation in verse representing allegorically the whole work of the field, from the plowing to the kneading and baking of rolls of pure cornflower. For example, the carolers recite the following:

Our plow works wonders And where it passes it leaves
It has four or five coulters A soft and fertile furrow;
Sharpened, tempered And where it furrows!
Sharp and cutting, And where it furrows!
Never sleeping The field laughs and blooms.

The “plugusor” carol is finished by giving the same gifts as in the case of other carols – nuts, apples, pears, money, etc. The “plugusor” and “the buhai” are not typically used together outside of this custom. The buhai is also heard during ritual mask shows founded by Romanian ancestors.

**Music: Instruments & Rhythms**

**Instruments:** The musical instruments in traditional Romanian culture include pan pipes (made famous by Romanian Gheorghe Zamfiri), the violin, an end-blown pipe, the accordion, and the
saxophone, to mention a few. The focus of this lesson is one ancient instrument in the drum family, a friction drum called the *buhai*.

The *buhai* (an old Romanian word for “ox”) is made from a wooden bucket or tub that functions as a drum body or resonator. The drumhead, made from goat or sheepskin, is soaked in water for several hours, stretched over the end of the bucket, and fastened there with rope. Some horsehair passes through a hole in the middle of the skin, and with the drum held by someone else the performer wets his or her hands and pulls along the length of the hair with one hand then the other, thus producing a noise resembling the bellow of an ox. The performer can raise the pitch of the drum by pressing into the drumhead with the free hand as the horsehair is being pulled.

**Rhythms:** While the rhythms of Romania include the standard four and six beats, and even five beats and seven beats, the *buhai* is intended to have the rhythm of an animal sound.

*Listen & Play Along:* *Use Roots of Rhythm CD Notes to support this section.*

*Note to teachers:* if instruments are not readily available, consider having students make their own (a general activity for making drums can be found in the Roots of Rhythm: Introduction section, and a specific buhai-making activity can be found in the Resources section of this chapter) or encourage them to improvise - using everyday items such as buckets, containers, phone books, desk tops, etc., as instruments. Rhythms can also be created with body percussion including hand clapping, foot tapping, finger snapping, etc.

Listen to Tracks 25-27 of the Roots of Rhythm Companion CD to hear the sound of the buhai. Since the buhai is not an easy drum to locate, students can first imitate the sound of the buhai and then make their own (see Resources section for buhai-making activity). Humans are able to make a variety of animal sounds using their own voice but some people use musical instruments to do this, for example, hunters use duck call devices. Using your voice, make the ox sounds of the Romanian *buhai* heard on Track 26 of the *Roots of Rhythm* Companion CD. Then, make your own homemade version of the instrument with a can, plastic lid, and masking tape, following the instructions in the Resources section.

Now it’s time to play the buhai! Play your homemade *buhai* along with the musical example on Track 28 of the *Roots of Rhythm* Companion CD, gently pinching the tape with your thumb on the sticky side and your index finger on the other side. Starting near the plastic lid, gently pull down the tape all the way to its end. Rhythms of the Romanian *buhai* are not in a particular beat but in un-measured, free time, meant to sound like an ox. These sounds can be notated with various dots and shaped of lines. Look at the various shapes below representing soft, loud and the length of time, and see if this is the sound on the CD. Read these graphic shapes and play along again with the sounds on the *Roots of Rhythm* Companion CD:
Compose a *buhai* piece using the graphic notation above, then recite the carol and have several students accompany the carol on their instruments.

**Other friction instruments:** There are other musical instruments that use friction, and a famous one used in today’s popular music is the turntable. The friction of the needle on the record is amplified with electronics for the musician. Have someone hold the *buhai*, and using both thumbs, make some DJ scratching sounds. Use a short, tight pull for the high sound and a longer, looser pull for the low sound. Write an “agricultural” rap that corresponds to the Romanian tradition but refers to American food, and then perform it with your homemade *buhai*.

*Buhai and Performer:*

Photograph by Craig Woodson.
Resources: Traditional vs. Homemade Buhai

The Traditional Romanian Buhai

Barrel or bucket  Rope/Strap  Skin  Horsehair

A Homemade Buhai

Coffee can  Plastic lid  Two additional pieces of tape  Double tape thickness  Masking tape – sticky side

Four Steps to Make Your Buhai


Try the following science experiment. Keeping the tape on the lid, take the lid off, hold the lid, pull down the tape with friction. Is the sound softer or louder without the can? Put the lid back on the can, and try the friction pull again. Does the can make the sound louder or softer?
The **buhai** (boo-hi) is a friction drum that is played in the eastern European country of Romania. It is made to imitate the sound of an ox in a New Year's festival, an old agricultural custom lasting 12 days. One of the most important traditions associated with this festival is “Plugusorul” (plue-guh-so-rul - a small plow), which is one of the oldest and most beautiful Romanian traditions. During this time singers go through the village and wish the farmers good luck with the new agricultural season. In this tradition, carol singers recite the plowing carol, accompanied by whip snaps, **buhai** noises, shouts, and sometimes flutes and other musical instruments. The plowing carol is a long verse about work of the field, from the plowing to the kneading and baking of rolls of pure cornflower. For example, the singers recite,

- Our plow works wonders
- It has four or five coulters
- Sharpened, tempered
- Sharp and cutting,
- Never sleeping

And where it passes it leaves
A soft and fertile furrow;
And where it furrows!
And where it furrows!
The field laughs and blooms.

Since traditionally an ox pulls the plow in the field, this animal sound is very important to hear during the procession.

The **buhai** is made from an open barrel or bucket that has one end covered with a goat skin. Strands of horsehair knotted at one end, pass through a hole in the center of the drumhead. The performer pulls down the horsehair, causing friction, and this makes the drumhead vibrate with a growling sound. The pitch of the drum can be raised by pressing into the drumhead as the horsehair is being pulled. The instrument is a very old type and dates back many centuries.
Directions: Read each of the following sentences and draw an X in the box to tell whether it is a fact or an opinion.

1. The *buhai* sounds interesting.  ☐ Fact  ☐ Opinion

2. The *buhai* is a friction drum from Romania.  ☐ Fact  ☐ Opinion

3. Romania is a country in Eastern Europe.  ☐ Fact  ☐ Opinion

4. The "Plugusorul" tradition should last a month or even longer.  ☐ Fact  ☐ Opinion

5. The *buhai* is supposed to imitate the sound of an ox in the Romanian New Year's festival.  ☐ Fact  ☐ Opinion

6. Romanian traditions should include modern songs about modern farm equipment like tractors.  ☐ Fact  ☐ Opinion

7. The carolers' song says that the plow is tempered and sharp.  ☐ Fact  ☐ Opinion

8. I think it would be fun to visit Romania during this New Year's festival and hear the *buhai*.  ☐ Fact  ☐ Opinion

9. The *buhai* is made from an open barrel with animal skin and horsehair.  ☐ Fact  ☐ Opinion

10. The *buhai* should be used in American popular music.  ☐ Fact  ☐ Opinion

The Buhai
**Instrument:**
Djembe, a goblet-shaped signal drum

**Country:**
Guinea

**Flag:**
The colors are pan-African. Red refers to the spirit of sacrifice, gold represents the sun and also wealth, and green signifies the forests.

**Size and Population:**
Guinea has an area of 94,926 square miles, with a coastline of 198 miles. It is slightly smaller than Oregon. Its population is estimated at 11,176,026; ranked 75th in the world as of July 2013.

**Geography and Climate:**
Guinea consists of four zones: the coastal plain, with the capital Conakry; the northwestern Fouta Djallon hill region; the northern dry lowlands; and the hilly, forested area of the southeast. The country is shaped like a boot standing on its toe, and Guinea’s shores are on the equatorial North Atlantic near the bottom of the bulge of West Africa. Its neighbors are Guinea-Bissau, Senegal, Liberia, Mali, Côte d'Ivoire and Sierra Leone.

The eastern part of the country is heavily forested, although it is far from virgin forest because of fires and farming. The improving road system is a help for travel, but not good for the forests since timber is now much more accessible for cutting. Forest elephants and other fauna are in decline because of poachers and loss of habitat through logging and the spread of farming.

The climate is tropical and Guinea is one of the wettest countries in West Africa. Its rainy season is from May to October, cool weather falls between November and February, and from December to February the *harmattan* (har-mah-ton) winds blow in from the Sahara and the skies are grey with sand.

**Background and History:**
People from the Sahara Desert probably migrated to the area of Guinea around 2000 B.C. They hunted and began to grow rice and other crops. The area came under the control of several empires between 1000 and the 1400s including the Mali Empire, founded by the Malinké people. The Portuguese arrived at the coast during the 15th century, and soon after that the slave trade began. The French arrived in this part of Africa early in the 1800s, and by 1849 claimed the coastal region as a French protectorate. An African national hero, Samori Touré, led the fight
against French rule until his capture in 1898. There was fierce resistance to the French control of Guinea and one of Touré’s descendants, Ahmed Sekou Touré, emerged as a leader in this struggle. When Guinea declared its independence as a republic in 1958, Sekou Touré became the first president.

By 1967, under Touré’s control, Guinea became a socialist nation based on the systems in Russia and China. Conditions became worse in the country, however, and the United States sent large shipments of food. Touré was not tolerant of his political opponents, and in 1977 there was a popular revolt against his policies, which forced him to relax his restrictions on his adversaries and release political prisoners. Despite his political troubles, President Touré supported the arts for two and a half decades during his rule. After his death in 1984, this support diminished and musicians increasingly sought work outside of the country.

Soon after Touré died, Colonel Lansana Conté led a coup to take over the government. He abandoned the socialism established by Touré and adopted a free enterprise system. In December 2010, Alpha Conde was elected president to a five year term. Today, Guinea’s economy depends mostly on its mining industry and new economic ties to other countries.

**Culture:**
Most of people of Guinea are black Africans represented by the Fulani, Malinké and Susu groups. While French is the official language, there are many African languages spoken in the country. Many of the languages are named after the various groups of people in different regions, for example, Fula for the Fulani in the central hills, Malinké in the north, and Susu in the south near the capital Conakry. When you visit the country, you can get by if you speak some French, but people certainly appreciate attempts to speak the African languages.

Most houses in the cities are rectangular in shape and made of mud bricks or wood. Those in the country are round huts made of sun-dried bricks with a thatched roof. People who live near the coast eat mostly rice, while those inland eat corn and millet. In the cities, people wear mostly Western-style clothes, but the traditional men’s garment is a loose robe called a *boubou* (bu-bu), while women’s dress consists of a blouse and brightly colored skirt tied at the waist.

There are many religions practiced in Guinea. The country is about 85 percent Muslim, 8 percent Christian, and 7 percent African traditional religion. Virtually all believe in reincarnation and embrace the existence of a supreme being.

Traditional music that includes *djembé* (gem-bay) drum music remains popular with most of the people in Guinea, despite the rise in popularity of more modern forms like hip-hop, rock and reggae. National and international stars like Talib Kweli, Paul Simon, Mick Fleetwood in America and Sekouba Bambino in Guinea have blended western instruments with African rhythms and instruments, and the two types of music still exist side by side.

**Music: Instruments & Rhythms**

**Instruments:** There are many types of musical instruments in Guinea and the surrounding countries. They include the *balaphon* (bah-lah-fo), the xylophone, the *kora* (ko-rah), a combination harp and lute, and the single-string fiddle, the *goge* (goh-jay). These instruments are
often used by griots (gree-oh), traditional storytellers who learn the history of a people and sing it along with praise songs at important events. The most important drum, the goblet-shaped djembé, is often played in an ensemble with other drums and a bell.

The shape of the djembé gives it a variety of tones, from very low to very high and from very soft to very loud. The goatskin or antelope drumhead is stretched over the top and pulled tight with a system of metal rings and rope. The drum is played with the hands, and often carried with a shoulder strap but sometimes is placed on a stand. Another important feature of the djembé’s sound is that drummers might choose to attach large sheets of tin with loose rings, called sèssè (seh-seh), to the drum to change the sound from a pure tone to a buzzing effect when the drum is struck. Usually the djembé is played in a drum ensemble, and there are typically four parts:

1. Djembé 1 – usually the lead drummer
2. Djembé 2 – this can be the same size as Djembé 1 but tuned lower
3. Bell - attached to the bass drums and played with a stick
4. Djundjun (jun-jun), Sangba (song-bah), and Kenkeni (keng-keh-knee) – a set of three bass drums played with sticks; this exercise will not use the medium-toned Sangba.

Rhythms: There are many different rhythms played by the ensemble, but the two that we will use here are Aconcon (ah-kong-kong) with eight counts, and Doundoumba (doon-doom-bah) with six counts. The identity of a particular rhythm is found in the bass drum parts with its longer pattern. When a performance is about to begin, the lead drummer plays a signal or “call.” This is a rhythmic pattern that brings the drummers together to play. Once it is started, the signal tells other drummers in the area to come and play. They all finish the call and begin the main rhythm.

Note: Sèssè is also called kzink kzink

Listen & Play Along: *Use Roots of Rhythm CD Notes to support this section.
Note to teachers: if instruments are not readily available, consider having students make their own (a general activity for making drums can be found in the Roots of Rhythm: Introduction section) or encourage them to improvise - using everyday items such as buckets, containers, phone books, desk tops, etc., as instruments. Rhythms can also be created with body percussion including hand-clapping, foot tapping, finger snapping, etc.

Listen to Tracks 29-30 of the Roots of Rhythm Companion CD to hear the sound of the djembé. Now it’s time to play along. If you don’t have any of these African instruments, use substitutes.
like conga drums for the *djembés*, small and large tom-toms for the *sangaba* and *djundjun*, and a cowbell. Or, play along on books or cardboard boxes.

Listen to Tracks 31-41 of the *Roots of Rhythm* Companion CD and play along by improvising some rhythms on your instrument. Listen to the pulse of the bass drums to keep the beat steady. Listen to the beats and copy the sound. Play just one hit of a count to start out. Then add other hits in the rhythm, as you feel comfortable. Remember, these are authentic African rhythms.

Practice the rhythms of the drum as shown in the box notation in the Resources section, and then play along again with some of the rhythms starting with *djembé* 1 in *Aconcon*. To get the right rhythm, say, “I like…to drum…with you. I like…to drum…with you” then add the correct drum hits. Read the notation in the Resources section and play part or all of the *Aconcon* rhythm, and also the *Doundoumba* rhythm, with other drummers. Begin with the Drum Call.

**Djembé and Performer:**

Olugbala Manns

Photographs by Craig Woodson.
**Roots of Rhythm - Chapter 4: The Djembé from Guinea**

**Resources: Two Rhythms for the Djembé Ensemble**

**Beginning of Drum Call**

<table>
<thead>
<tr>
<th>Djembé 1</th>
<th>Now...let's play...so...come on...get your drum...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R L R L R L R L R L R L R L R L R L R L R L R L R L</td>
</tr>
</tbody>
</table>

**Aconcon Rhythms**

<table>
<thead>
<tr>
<th>Djembé 1</th>
<th>I like...to drum...with you. I like...with you</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R L R L R L R L R L R L R L R L R L</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Djembé 2</th>
<th>I like...to play the drum...I like...play the drum...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R L R L R L R L R L R L R L R L</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bell</th>
<th>Bell...I like...the bell...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R R R R R R R R R R R R</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bass Drum</th>
<th>Bass...I like...the bass...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 1 1 1 1 1 1 1 1 1 1 1</td>
</tr>
</tbody>
</table>

Please note: the Bell is attached to the Bass Drum and is normally played by the same person, but the two instruments could be played by two people.

**Doundoumba Rhythm**

<table>
<thead>
<tr>
<th>Djembé 1</th>
<th>Let's play a drum...Let's play a drum...Let's play a drum...Let's play a drum...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R L R L R L R L R L R L R L R L R L R L</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Djembé 2</th>
<th>We...can play...now. We...can play...now. We...can play...now. We...can play...now</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R L R L R L R L R L R L R L</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bell</th>
<th>I...can play...the bell...Doun...Doun...the sound...of A...ca...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R R R R R R R R</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bass</th>
<th>Bass...Doun...Doun...the sound...of A...ca...</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>1 1 1</td>
</tr>
<tr>
<td>Low</td>
<td>1 1 1 1 1 1 1 1</td>
</tr>
</tbody>
</table>

Please note: the Bell and Bass Drums are normally played by the same person, but these instruments can also be played by two people.

Key to notation:

- **R or L = Center Damp** - Slap the drum with the fingers apart near the drumhead’s center, and keep the hand on the surface for a brief moment.

- **R or L = Rim Tone** - Hit the drum with the fingers together near the drumhead’s rim, and bounce the hand off the surface. Also hit the bell with the stick.

- **r or l = Center Bass Tone** - Hit the drum with the palm or stick on the drumhead’s center, and bounce off of the surface, used here only on the bass drums.

1, 2, 3 = Counts in **bold** are intended to separate groups of counts for easier viewing.
The \textit{djembé} is a wooden, hand drum played in Guinea, West Africa. Its goblet shape gives the performer both high and low pitches. The drum’s sound can be changed with the addition of metal sheets with metal rings attached that buzz sound when the animal skin drumhead is struck. Nylon or rope cords tighten the drum. The drummer carries the instrument on a cloth strap around the neck, necessary for moving around while accompanying dancers. To get the drummers started in the performance, the lead \textit{djembé} drummer uses a rhythmic signal. This rhythm is also used to tell the dancers when to change their steps. Two of the many types of \textit{djembé} dance rhythms are \textit{Aconcon} in 8 counts and \textit{Doundoumba} in 12 counts. This type of drumming requires the performer to be in excellent physical condition.

\textbf{Directions.} Answer these questions about the \textit{djembé}.

1. How does the \textit{djembé} get a buzzing sound?
   
   ____________________________________________________
   
   ____________________________________________________
   
   2. How does a lead drummer use a signal rhythm?
   
   ____________________________________________________
   
   ____________________________________________________
   
   ____________________________________________________
   
   3. List some of the materials that you think might be used to make the \textit{djembé}.

   ____________________________________________________
   
   ____________________________________________________
   
   ____________________________________________________
   
   ____________________________________________________
   
   ____________________________________________________
Directions: Use the facts about the djembé that you have learned about in the paragraph and photographs, and complete the crossword puzzle.

Across:
2. The djembé is played with two ______
4. Djembé drummers accompany ______
6. The djembé’s bottom is held between the ______
8. The djembé has high and low ______
9. ______ is a country in West Africa.
10. A ______ rhythm starts a performance.

Down:
1. ______ is the number of counts in Doundoumba.
3. A goblet-shaped drum from Guinea is called a ______
5. The djembé is carried with a ______
7. An eight count djembé rhythm is ______

The Djembé
**Instrument:**
*Dondo, an hourglass talking drum*

**Country:**
Ghana

**Ghana Flag:**
Ghanaian flag colors are red for the spirit of sacrifice, gold for sun and wealth, green for forests. The black star symbolizes African freedom.

**Size and Population:**
Ghana has an area of 91,098 square miles with 335 miles of coastline and is slightly smaller than Oregon. Its population in July 2013 was estimated at 25,199,609; 48th in the world.

**Geography and Climate:**
The land in Ghana slopes upward from the Gulf of Guinea (5º above the equator on the Atlantic Ocean) to the Kwahu Plateau, which runs across the central part of Ghana from the northwest to southeast (dividing the White Volta River from the Black Volta River). Northern areas primarily consist of sloping grasslands while in the southwest there are thick forests. Ghana has the world’s largest artificial lake, Lake Volta, which was created by the Akosombo (ah-koh-som-boh) Dam, a major power source for the country.

The climate of Ghana is tropical with an annual rainfall of 40 to 60 inches and an average temperature of 80º F. Areas in the north and east of the country have severe dry spells from November to March.

**Background and History:**
People from the ancient Ghana Empire (present day Mauritania and Mali) migrated southeast and settled in what is now Ghana in the 13th century. Explorers from Portugal landed in the area in 1471, and called it the *Gold Coast* based on the large amount of gold they found there. Dutch merchants followed, competing for gold and eventually slave trade profits, and by 1641 the Dutch took control of the area’s forts from the Portuguese. As a large slave trade developed in the 1600s, the Danes and the English also competed for these profits.

After the slave trade was officially banned in the 1860s, Britain gained control of the Dutch and Danish forts and the area inland up to the Asante (ah-saan-tee) Empire; the British changed the pronunciation of the word Asante to Ashanti (ah-shon-tee). After a famous battle in 1895, the
British took the Asante territory and northern lands as a protectorate. Britain improved and extended the roads and railways, built hospitals and developed schools, but also outlawed many traditional African traditions including drumming.

By the late 1940s, Britain began to give control of the Gold Coast back to Africans and in 1957 the country became the independent nation of Ghana under the leadership of Kwame Nkrumah (kwa-meh en-crew-mah), the first president (1960). Ghana was the first African country to become independent of colonial rule. Nkrumah was the main political leader in Ghana beginning in 1949, but in 1966, after mounting national debt and government corruption, the military took control in a coup. This was followed by six years of elected presidents and 7 years military rule.

In 1981 Air Force Lt. Jerry Rawlings took control and became head of state. Rawlings led the country back to elected rule, but after two years of problems with President Dr. H. Limann, he saw the need to retake control in 1981. Elected president in 1981, Rawlings stayed in power until 2001. He was followed by three elected presidents, including the incumbent President, John D. Mahama (2013).

**Culture:**

Ghana’s people are mostly black Africans, but include small populations of Middle Easterners, Asians, and Europeans. While the official language is English, most people speak an African language, the most common being Ewe (eh-way) and Ga (gah) in the south, Twi (tschwee) in the central region, and Mossi-Dagomba (moh-see dah-gom-bah) in the north. About 5.2 percent of Ghanaians practice traditional African religions, while 71 percent are Christians and 17 percent are Muslims. About 49 percent of Ghanaians live in rural farm areas and the remaining 51 percent live in the cities and many have government jobs. The cities have mostly Western-style buildings, but traditional village homes that include mud brick walls and metal roofs are often built around courtyards.

There are 10 cultural regions in Ghana, each with its own identity: Ashanti, Brong-Ahafo (brong ah-hah-foh), Central, Eastern, Greater Accra, Northern, Upper East, Upper West, Volta, and Western regions. There are also refugees from neighboring countries including Liberia, Sierra Leone, and Togo.

The national dress is made from brightly colored cloths, the most famous being *Kente* (ken-teenth) cloth, or strips of symbolic patterns that are sewn together to become large, wrapped clothing mostly worn by men. Women wear blouses, brightly colored skirts and often a head wrap. Another pattern with numerous symbols is *Adinkra* (ah-ding-krah) cloth named after a famous chief.

Most children attend school until they are 12, and over one third of the nation’s adults can read and write. Students at the three Ghanaian universities come from Ghana, other African nations and nations around the world. The Center for African Studies in the capital city of Accra is world famous for studying and preserving artistic traditions of Ghana and other African countries.

While there are many so-called tribes or language groups in Ghana, the Asante, who speak the Akan (ah-kon) language, Twi, dominated the country at one time. Their influence has spread beyond their capital of Kumasi (koo-mah-see), across Ghana and even beyond political borders.
of the country. Surrounding peoples have influenced the Asante, and the dondo (done-doh) drum is one example of such influence. This instrument came to the Asante people from the Mamprusi (mam-pru-see) tribe in the north of Ghana after a war. The dondo drum is the focus of this lesson.

**Music: Instruments & Rhythms**

**Instruments:** There are many types of African musical instruments in Ghana, including the six-stringed seperewa (se-pair-eh-wah), the benta (ben-tah), a musical bow, the atenteben (ah-ten-teh-ben) flute, and the ntahera (en-tah-hair-ah), an elephant tusk horn. However, the majority of instruments in Ghana are in the percussion families of idiophones and membranophones (see Introduction section for definitions of these terms). Melodies are played on the gyilli (gee-lee) xylophone and the plucked “thumb piano” called gyilligo (gee-lee-go - the suffix “go” means small). Even though the gyilligo is actually a different type of idiophone, it takes its tuning from the gyilli and is therefore considered a “small xylophone.”

The most famous bells in Ghana are the double bell, gankogui (gong-koh-gwee), and the boat-shaped adawia (ah-dah-we-ah). There are rattles that have beads outside, axatse (ak-sot-seh), and inside, ntorowa (en-tro-wah). The barrel-shaped Ewe drums contrast with the goblet-shaped Asante drums and the square frame drums of the Ga people.

The subject of this lesson, the dondo (dondo is the plural of dondo), is an hourglass-shaped talking drum that is played under your arm by squeezing cords connecting two heads as one head is struck with a curved stick. This drum is found in many countries in West Africa and is called by many names in different areas. For example, the tama (tah-mah) is from Senegal, and the kalangu (kah-leng-gu) and dundun (doon-doon) are from Nigeria.

Regardless of the types of instruments in an ensemble, the melodies and rhythms are like the members of a family. In a drum ensemble, the main or lead drums are “the parents,” smaller drums are “the children,” and the smallest (usually a bell or rattle) is “the baby.” The baby’s rhythm is repetitive like a baby’s demanding voice and as such influences all of the other members of the family. So you hear a little bit of the bell part in the other instruments’ rhythms.

**Rhythms:** There are three main types of rhythms in Ghana: speech rhythm, dance rhythm and signal rhythm. When an instrument is used to talk it is imitating the rhythm of the language, following the changing tones of speech, typically low, medium and high levels. Many African (and Asian) languages are different from English and other languages in that the pitch of a syllable gives a word a particular meaning. An Asante chief’s drummer will call other drummers to come and perform by hitting the atumpan (ah-toom-pon), two goblet-shaped drums tuned to a low and high pitch respectively (see Resources below). These two tones represent the minimum of low and high tones in the Twi language. Even though the atumpan drummer usually plays the words calling the drummers to play, the dondo drummer can also play along on the call. While the dondo drummer can play many pitches by squeezing the cords connecting the heads, the atumpan drummer is restricted to a few fixed tones on each drum to recreate the Twi language. The dance rhythms vary from social to religious to royal patterns, which are immediately recognized by the performers. One of the most important social rhythms among the Asante is Adowa (ah-doh-wah), a type of ensemble that is used for official ceremonies, funerals and parties. This music is said to have been started by an Asante Queen Mother over 150 years ago,
over 150 years ago, when for the first time she was inspired to interrupt a performance to play a gentle rhythm on the atumpan drums. People said it sounded like the motion of an antelope walking, and Adowa means antelope.

Signal rhythms were used in times of emergency and in times of war. In the past, a bell called dawuro (dah-oo-row) was played if a dangerous animal approached a village. During past battles, the Asante’s chief talking drummer, or atumpanhene (ah-toom-pon-hee-nee), relayed the chief’s commands to warriors in the field through other drummers. These signals were kept under strict secrecy.

Listen & Play Along: *Use Roots of Rhythm CD Notes to support this section.

Note to teachers: if instruments are not readily available, consider having students make their own (a general activity for making drums can be found in the Roots of Rhythm: Introduction section) or encourage them to improvise - using everyday items such as buckets, containers, phone books, desk tops, etc., as instruments. Rhythms can also be created with body percussion including hand clapping, foot tapping, finger snapping, etc.

Listen to Track 42 of the Roots of Rhythm Companion CD to hear the sound of the dondo. Now it’s time to play along. If you don’t have a dondo drum, use substitutes like bongos, tom-toms, and congas for high and low drum sounds, and a cowbell. Or, see below for an illustration on creating a homemade dondo drum.

Listen to Tracks 43-49 of the Roots of Rhythm Companion CD and play along to the Adowa rhythms by improvising some rhythms. If you have a real African squeeze drum like the dondo, practice hitting then squeezing to change the sound from a low to a high pitch. Listen to the sound of the dondo on the Roots of Rhythm Companion CD and see if you can copy that sound. The dondo supports the atumpan by playing or echoing the same rhythms. An important difference is that the atumpan is a set of two drums used to get two or three tones and the dondo is one drum that can change pitch to get two or many more tones.

Practice the authentic sounds of the dondo as shown in the box notation below (in the Resources section) and then play some of the rhythms, starting with the adawia in the Adowa Atene (ah-tin-nee) rhythm. To get the right rhythm say “I…..like…to drum…with….you…I……like…to drum…with….you,” then add the correct drum hits. Read the notation and play part or all of the Atene rhythms. Begin with the Adowa drum call.

You can make a homemade dondo, as do Ghanaian children, with a can and rubber drumhead:

The Dondo

Substitute Dondo

Press in on the lid as you hit—this changes the pitch

Curved beater

Coffee can with an open or closed end and rubber lid

Pencil beater

20”


Dondo and Performer:

Photograph by Craig Woodson.
Resources: The *Adowa* Ensemble, Talking Drum Rhythm, and *Atene* Rhythm

The *Adowa* Ensemble

<table>
<thead>
<tr>
<th>Dondo</th>
<th>Petia</th>
<th>Atumpan</th>
<th>Apentemma</th>
<th>Adawia</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="hand_drum.png" alt="Hand drum" /></td>
<td><img src="female_high_tone.png" alt="Female high tone" /></td>
<td><img src="male_low_tone.png" alt="Male low tone" /></td>
<td><img src="hand_drum.png" alt="Hand drum" /></td>
<td><img src="hand_drum.png" alt="Hand drum" /></td>
</tr>
</tbody>
</table>

*Adowa* Drum Call in Speech Rhythm¹

<table>
<thead>
<tr>
<th>Atumpan or Dondo</th>
<th>Adawia</th>
<th>Apentemma</th>
<th>Petia</th>
<th>Dondo</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="hand_drum.png" alt="Hand drum" /></td>
<td><img src="adawia_bell.png" alt="Adawia bell" /></td>
<td><img src="petia_stick.png" alt="Petia (stick)" /></td>
<td><img src="apentemma_hand.png" alt="Apentemma (hand)" /></td>
<td><img src="adowa_ensemble.png" alt="Adowa Ensemble" /></td>
</tr>
<tr>
<td><img src="adowa_drum_call.png" alt="Adowa Drum Call in Speech Rhythm" /></td>
<td><img src="adowa_rhythms.png" alt="Adowa Rhythms" /></td>
<td><img src="adowa_atene_rhythms.png" alt="Adowa Atene Rhythms" /></td>
<td><img src="adowa_rhythms.png" alt="Adowa Rhythms" /></td>
<td><img src="adowa_rhythms.png" alt="Adowa Rhythms" /></td>
</tr>
</tbody>
</table>

Adowa Atene Rhythms²

<table>
<thead>
<tr>
<th>Adawia</th>
<th>Apentemma</th>
<th>Petia</th>
<th>Dondo</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="adowa_atene_rhythms.png" alt="Adowa Atene Rhythms" /></td>
<td><img src="adowa_atene_rhythms.png" alt="Adowa Atene Rhythms" /></td>
<td><img src="adowa_atene_rhythms.png" alt="Adowa Atene Rhythms" /></td>
<td><img src="adowa_atene_rhythms.png" alt="Adowa Atene Rhythms" /></td>
</tr>
</tbody>
</table>

Notation of the *Dondo* and other instruments:

- **R or L = Center High Tone** – After squeezing the tension cords tightly, hit the drum with the stick near the drumhead’s center, and bounce the stick off the surface. This also means hit the *adawia* bell and hit the petia (stick) and apentemma (hand) by pressing into the drumhead.
- **R or L = Center Low Tone** – After releasing the tension cords, hit the drum with the stick near the drumhead’s center, and bounce the stick off the surface. For the petia and apentemma bounce off of the drum to let the tone ring.

¹ This rhythm means “*Adawia* player [named] *Kofi*, come on, let’s play.” If played on the *dondo*, a right-handed drummer would hit the drum with a stick only in the right hand. “*Atene*” means straight forward.

² This rhythm is based on transcriptions of drumming by Kwasi Badu, an Asante master drummer.
FUNSHEET - COMPARE AND CONTRAST: THE DONDO

Directions: A Venn diagram is a chart that shows similarities and differences between two things. First, read the paragraphs below and then think of at least five things to write in the Venn diagram for each outer part of the rounded shape (differences) and five things to write in the intersecting part (similarities).

The Dondo is an hourglass-shaped drum from Ghana. By squeezing the cords connecting the two drumheads under the left arm and hitting one head with a stick, the performer can quickly change the drum's pitch. Dondo drummers use this technique to "talk" on the drum. The lead drummer will call to the other drummers with his talking drum, and say, "come and perform." One important 12-count rhythm is Adowa (ah-doh-wah). It is played to accompany singing and dancing, and is performed at social events, official ceremonies, and even funerals.

Ghana, a country in West Africa, is slightly smaller than the state of Oregon and it has a population of almost 21 million. The country has a tropical climate and has the world's largest artificial lake. The black star on the country's flag symbolizes African freedom. European countries colonized the country beginning in 1471, ending with the British in the 1900s. In 1957, Ghana became the first African country to gain independence from colonial rule.

The Lakota Drum is a frame drum with one drumhead used by the Lakota in South Dakota. While holding the drum's handle with the left hand, the drummer strikes the drumhead with a long, padded beater with the right hand. Sometimes the drummer will add a buzz to the drum's sound by slightly touching the drumhead with the left index finger. One important 3-count rhythm is the "heartbeat rhythm," because it sounds like a beating heart. It is played to accompany singing and dancing at social events like a powwow and official ceremonies.

The Lakotas, or Oglalas, mostly live on the Pine Ridge Reservation in South Dakota and have a population of almost 21,000. The climate in this area can be extremely hot or cold. The state is named after one of the three Oglala tribes, the Dakotas. The eight teepees on the Lakota's flag symbolize the eight Reservation districts. British settlers built colonies in North America in the 1600's and began to push the Native Americans westward forcing the Lakotas onto reservations in the 1800s. This legal issue has yet to be settled by the Lakota nation.
A Venn Diagram for the *Dondo* and *Lakota Drum*

---

**The Dondo**

**Flag of Ghana**

**The Lakota Drum**

**Flag of the Lakota Nation**
Instrument:
Kakko, a rhythmic conductor

Country:
Japan

Flag:
The large red dot on the white background represents the sun without rays.

Size and Population:
Japan has an area of 145,870 square miles, with a coastline of 5,857 miles, 1182 square miles of inland water and no land borders. It is slightly smaller than California. Japan’s population is estimated at 127,253,075; ranked 10th in the world as of July 2013.

Geography and Climate:
There are thousands of islands that make up the country of Japan, but the four largest from north to south are Hokkaido, Honshu, Shikoku, and Kyushu. The islands of Japan face Korea, Russia, and China. The country’s northernmost islands are located at the latitude of Portland, Oregon, while its southern most are in line with the Bahamas. The earth’s tectonic plates meet below Japan causing many earthquakes and forming several mountains and volcanoes on the land. Mountains and hills cover most of the country leaving narrow plains along the coast where most of the people live. The capital, Tokyo, is located on the east coast and centered on Honshu.

Because Japan extends so far to the north and south, the climate varies tremendously. There are long, hot summers and mild winters on the southern islands of Kyushu and Shikoku. The central Honshu has warm, humid summers and sunny autumns and springs. Northern Hokkaido has cool summers and cold winters.

Background and History:
While the origins of the Japanese people remain a mystery, scientific evidence shows that people hunted, fished and gathered on the islands around 4,500 B.C. According to legend Jimmu Tenno became Japan’s first emperor in 660 B.C. Warring clans headed by chiefs controlled the area after 200 A.D. By around 400 A.D., new ideas and technologies began arriving from China. Two new ideas were the system of ruling by imperial court and the religion of Confucianism. Ancestors of Japan’s imperial ruling family today came from the period of around 400 A.D. Soon afterward, a central government was set up and controlled by the emperor. In 858 the
Fujiwara family began a 300-year rule at the imperial court. Yoritomo became the first shogun in 1192. Shoguns were military leaders who governed Japan until 1867, giving little power to the emperors.

Portuguese sailors became the first Europeans to reach Japan in 1543 but by the early 1600s Japan had cut it ties with the outside world. At this time the Tokugawa family had begun a 250-year rule. In the mid 1800s Commodore Matthew Perry visited Japan and opened two U.S. trading ports, ending Japan’s isolation from the rest of the world. At this time the Tokugawa family was overthrown, returning traditional powers to the emperors. With the capital in Tokyo in 1868, Japan started on a path to become a modern industrial nation. When Japan defeated Russia in the 1904-05 war, it established Japan as a global power. On the side of England in WWI, Japan seized German land in China, continuing the country’s political expansion in Asia. After devastating earthquakes in 1923, Japan went on the offensive and seized more Chinese land, and its war with China in 1937 became part of WWII. In 1941, Japan attacked the U.S. at Pearl Harbor, but this tragic war in Asia ended with two atomic bombs on Japanese cities in 1945. At its height in 1942, Japan controlled an area of land and ocean in Asia of around 21,150,000 square miles compared with today’s area of 145,870 square miles of land.

In 1947, Japan’s democratic constitution went into effect and in 1951 the country signed a general peace and security treaty with the U.S. The Allies left Japan the next year. In 1960 a cooperation and security treaty was signed with America, but by the 1980s there was growing opposition to Japan’s one-sided trade policies. A decade later Japan agreed to ease impediments to foreign business. Even though the emperor continues to symbolize Japan’s unity, control of the country resides with politicians, bureaucrats, and business executives. The current chief of state in Japan is Emperor Akihito (1989). The head of government is Prime Minister Shinzo Abe (December 2012).

**Culture:**
The Japanese call their country Nippon or Nihon, which means “source of the sun.” The population is 99 percent Japanese with the remaining one percent mostly Korean, Chinese, Brazilian, and Philippine. Shinto and Buddhist religions are practiced by 84 percent of the population and 0.7 percent is Christian. Three fourths of Japan’s people live in the cities that have become centers of modern commerce. City dwellers have a comfortable living standard and while rural families earn less income as farmers, they still have modern conveniences.

The family as a group unit is very important in Japan, but has become less formal since the 1950s. For example, marriages are no longer pre-arranged and children can choose their own profession. Clothes are important in Japan and Western styles have mostly been adopted over the traditional kimono (keh-moh-noh). The main food in the country is rice, which is served at almost every meal. Their diet includes raw fish with rice, beef and vegetables, soybean soup, and fried fish and vegetables in a batter. The Japanese enjoy Japanese sports like sumo (sue-moh) wrestling, judo (ju-doh) and aikido (eye-key-doh) as well as skiing and golf. Japan has a very high literacy rate and education is a high priority. Of the 460 universities, Toyko’s Nihon University is the largest with over 80,000 students. The arts have a long and valued tradition in Japan including historical dramas like the no play and kabuki (kah-boo-key) theater, literature like the ancient novel The Tale of Genji, sculpture like small haniwa (hon-nee-wah) clay burial figures, and paintings like historical scrolls and screens. There are many types of Japanese music including religious, military, popular and court music.
The focus of this lesson is the *kakko* (kah-koh), a small drum that is used mainly in court music known as *gagaku* (gah-gah-koo) or “elegant music.” This type of music was officially recognized as imperial by rulers in 703 A.D. and flowered during the four centuries of the Heian Period (781-1192). Its tradition has continued without interruption since 1150 A.D. This music has continuously been supported by the imperial court, its performers have a hereditary line back to the original performers, and the musical pieces being performed have remained the same though new compositions are added by today’s composers. *Gagaku* is designed to be performed at a court or shrine for several different kinds of occasions, including moral or religious events, the enthroning of an emperor, imperial marriages, and the completion of temples. At its introduction into Japanese culture in the 600s, it represented a new international style that flourished when the music of China, Korea, Manchuria and India all could be heard in the highest courts in Japan.

*Gagaku* is divided into “Music of the Right” of *komagaku* (koh-mah-gah-ku), music of Korean origin, and “Music of the Left” or *togaku* (toe-gah-ku), music of Chinese origin. *Togaku* can be performed with dance accompaniment called *bugaku* (boo-ga-ku) or as instrumental music called *kangen* (kan-gen). A typical seating of the percussion section is in front of the *gagaku* orchestra, opposite that of the American orchestra where the percussion section is in the back. This highlights the fact that percussion instruments control the rhythmic pace and that the *kakko* performer is the conductor or leader of this ensemble.

Seating chart for the *Gagaku* orchestra:

<table>
<thead>
<tr>
<th>Wind instruments</th>
<th>Flutes</th>
<th>Oboes</th>
<th>Mouth Organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>String instruments</td>
<td>Zithers</td>
<td>Lutes</td>
<td></td>
</tr>
<tr>
<td>Percussion instruments</td>
<td>Shoko-gong, Taiko-drum, Kakko-drum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audience</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Music: Instruments & Rhythms**

**Instruments**: The *kakko* is a cylindrical or barrel-shaped drum with two over-sized hoop drumheads laced on each end. The drumheads are lapped onto an iron ring before they are laced onto the drum. The black lacing strings are for tuning the drumhead and are made from horsehide. The body of the drum is about 12 inches long and 6 inches in diameter but the head is 9 inches in diameter so that the drumhead can easily be laced on to the body. The drum sits on a stand in front of the performer with the lacing touching the stand and the drum is struck with two thin sticks with a slightly bulbous tip. The drum is played with light strokes and sharp loud strokes with either the right or left hand or both at nearly the same time.

Since its introduction into Japan from China in the 700s, the *kakko* has gradually become the leading rhythm instrument in *togaku*. The name *kakko* is written with the same Chinese characters as the Korean *kalgo* (kol-goh), but there does not seem to be a historical connection. Pronounced *jiegu* (gee-gu) in Chinese, the characters have referred to a variety of drums. On occasion the *kakko* drum is also used as a substitute for other drums like the hourglass drum, *ikko* (ee-koh), and in that case will use only one stick. It is also sometimes used in *geza*, a type of off-stage music in *kabuki* theater to set a mood at the imperial court.
There are many types of musical instruments in Japan and several of these are used in *tōgaku* music. The wind instruments include the *fue* (fueh), a flute, the *hichiriki* (heh-che-ree-key), an oboe, and the *shō* (show), a mouth organ. String instruments in *tōgaku* include the *koto* (koh-toh), a board zither and the *biwa* (bee-wah), a plucked lute. There are three percussion instruments in *tōgaku* that together keep the rhythm: the *shōko*, a small gong, the *taiko*, a large double-headed drum and the *kakko*, the drum that conducts the *tōgaku* ensemble.

**Rhythms:** *Gagaku* music has three rhythmic sections: *Jo* (joe), a slow or free rhythm, *Ha* (hah) the establishment of rhythm, and *Kyū* (key-you), which accelerates to a climax, then returns to *Jo*. Each rhythm of *tōgaku* is maintained in this form by the three percussion instruments: *kakko*, *shōko*, and the *taiko*. The *shōko* often follows the *taiko* rhythm but the *taiko* provides the main strong stroke of the rhythmic pattern of *tōgaku* music. The *kakko* player is considered the rhythmic conductor of the orchestra, controlling slight changes in tempo *Gagaku* rhythmic theory is based on eight, four, and two counts. There are also variations with mixed counts like two plus four called *tada-byōshi* (tah-dah bee-yoh-she), and two plus three called *yatara-byōshi* (yah-tah-rah bee-yoh-she); the latter is shown in the Resources section below. Japanese rhythms are mostly learned by rote but they are also notated on a tablature that includes black dots.

Measured counts in *Gagaku* are in three types of rhythms based on 8 beats or *nobeyoshi* (noh-bee-yoh-she), 4 beats or *hayabyoshi* (hah-yah-bee-yoh-she) and 2 beats or *osebyoshi* (oh-she-bee-yoh-she). In addition to these measured counts, the *kakko* plays three patterns that establish a type of free rhythm, that is, without measured counts. The first rhythmic pattern called *sei* (say) has a single hit on the drum with the right hand followed by a long space. The second type of rhythm is *mororai* (moh-roh-rye), a steady, fast beat or “roll” with rapid alternating right/left motions that accelerate very slightly. A third rhythm, *katarai* (kah-tah-rye), might be described as a ‘bouncing ball’ rhythm, the sound of a rubber ball dropped on a hard floor. This unusual rhythm that gradually accelerates is played with the left hand and is reserved for the *kakko* in its role as rhythmic leader.

Listen & Play Along: *Use Roots of Rhythm CD Notes to support this section.*

Note to teachers: if instruments are not readily available, consider having students make their own (a general activity for making drums can be found in the Roots of Rhythm: Introduction section, and a specific *kakko*-making activity is described below) or encourage them to improvise - using everyday items such as buckets, containers, phone books, desk tops, etc., as instruments. Rhythms can also be created with body percussion including hand clapping, foot tapping, finger snapping, etc.

**Listen to Track 50 of the Roots of Rhythm Companion CD to hear the sound of the kakko.** Now it’s time to play along. If you don’t have these instruments, use some instruments from your music classroom as substitutes for the Japanese percussion section. Use a cymbal for the *shōko*, a large tom-tom for the *taiko*, and bongos played with thin sticks for the *kakko*. Or, see below for directions for creating a homemade *kakko* drum.

**Listen to Tracks 51-57 of the Roots of Rhythm Companion CD and play along with the rhythms.** Listen to the CD again and practice some of the rhythms, especially the fast steady beats and the bouncing ball rhythm. Bounce a small rubber ball and listen to the rhythm as it bounces, then
compare it to the *katarai* pattern on the CD. Now try to play the rhythms heard on the CD and shown in the Resources section.

**Making A Homemade Kakko:** You can make a homemade *kakko* with the following items: a large coffee can, PVC packaging tape, strapping tape, two chopsticks, two embroidery hoops, a cardboard box, scissors, and a can opener. Make the instrument by following these steps, and then compare the sound of your homemade *kakko* to the one on the CD. Tighten your drum if needed.

Steps:
1. Take lids off can, clean it
2. Loosely stretch PVC tape across hoops
3. Pull strapping tape in “W” pattern on hoops over top of head tightly
4. Tape ball on chopsticks

**Kakko and Performers:**

Reigakusha Gagaku Group.
Photographs from Yasuhiro Kakigahara.
Kakko Free Rhythms for the Tōgaku Orchestra

1. Sei
   (one hit with right, space)

2. Mororai
   (fast steady roll, both)

3. Katarai
   (bouncing ball rhythm)

4. Yatara-byōshi
   (2+3 patterns)

Measured Rhythms in the Tōgaku Percussion Section

<table>
<thead>
<tr>
<th>Count</th>
<th>1</th>
<th>2</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>1</th>
<th>2</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shōko</td>
<td></td>
<td></td>
<td>Ir</td>
<td>Ir</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kakko</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Taiko</td>
<td></td>
<td></td>
<td>R</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
- Ir – double hits per count
- R or L – single hits
- R in bold is louder

Please note:
1. The dot size is the loudness, the bigger the dot the louder the drum stroke: ⬤ ⬤ ⬤
2. The distance between dots is the rhythm.
3. On the taiko, the left hand is considered a “female” or softer stroke and the right hand a “male” or harder stroke.
The *kakko* (kah-ko) is a barrel-shaped drum with two drumheads played with two sticks from Japan. The drum is considered the leader or conductor of the ancient musical ensemble called *tōgaku* (toh-gah-koo). This drum probably came from China in the 700s and was gradually accepted in Japan and even used in performances in the Imperial Court for the Emperor's entertainment.

There are several types of rhythms played on the *kakko*, a slow repeated hit, a fast roll (fast alternating R-L-R-L) and *katarai*, (kah-tah-rye) which sounds like a bouncing ball. When other musicians in the ensemble, hear these rhythms they know when to play or change speed. The *kakko* plays with two other percussion instruments in the ensemble, a small gong called *shōko* (sho-koh) and a large bass drum called *taiko* (tie-koh). Below is a photograph of a *tōgaku* ensemble, showing the *kakko* and other percussion instruments in the front of the group, unlike many European orchestras where the percussionists are positioned in the back.

The *tōgaku* ensemble performs in traditional Japanese robes and headpieces, and the musical instruments are often highly decorated as the photograph below shows. The *kakko* is decorated with a lotus flower and ornamental greenery against a gold background. The lotus is a symbol of spiritual enlightenment.

*The Kakko*

*The Tōgaku Ensemble*
Directions. Think about how you might decorate a kakko with one of your favorite flowers or other designs. Consider what that design mean to you. First, list these designs in the spaces below and then draw them on the kakko form shown below. Outline the design and background in pencil then use color. Use the information in the paragraph above to get some ideas for your designs.

______________________________  ______________________________
______________________________  ______________________________
______________________________  ______________________________
______________________________  ______________________________
______________________________  ______________________________

To me, this decoration is a symbol of____________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
Instrument:
Lakota Drum, “Rhythm of the Heart”

Country:
United States, South Dakota, Lakota people

Lakota Flag:
Red symbolizes the blood shed by the Lakota in defense of their land, and also the idea of “red men.” Begun in 1961, this Oglala Lakota flag uses a deep blue fringe bringing in colors of the United States flag. A circle of eight teepees represents the eight Pine Ridge Reservation districts.

Size and Population:
The Pine Ridge Reservation, home of the Lakota, is an area of 3,100 square miles in southwestern South Dakota, a state that has 77,116 square miles. The Lakota Reservation population is over 55,000, and South Dakota’s population is over 833,354; ranked 46th in the U.S. There are an estimated 103,255 enrolled members of the Lakota/Sioux people (1990). Today there are 562 tribal governments recognized by the Federal Government with around 3 million people living in or around 310 reservations.

Geography and Climate:
South Dakota, named after the Dakota Indians, has four major land regions. The Drift Prairie is to the east, with its low rolling hills and glacial lakes. The Dissected Till Plains, with rolling hills formed by glaciers and many streams, are in the southeast. The Great Plains cover most of the central and western state with rolling hills and rugged valleys. The Missouri River and its tributaries cut through this region from the north to south. The Black Hills consist of low mountains and deep canyons and thick pine forests in the west central region. The Missouri River is the state’s most important river, with its branches draining most of the state.

The climate in South Dakota generally ranges from 74°F in July to 16°F in January, but the state has had extremes of hot (120°F) and cold (-58°F). The annual rainfall is 18 inches.
Background and History:
It is generally accepted that the original inhabitants of the Americas came from northeast Asia across the Bering Strait over 15,000 years ago and then migrated throughout the Americas. Lakota people trace their immediate ancestry to the area that is now Minnesota in the late 1600s. Under pressure from their Cree and Chippewa enemies who had acquired firearms, the north-central Minnesota Lakota left behind their forest economy of hunting, fishing and their gathering lifestyle and moved westward to pursue buffalo with newly acquired horses. They became expert horsemen and built an economy on trading, buffalo, and hunting. In 1682, France claimed land that included South Dakota, and sixty years later, the first white men visited the area of South Dakota. Having crossed the Missouri River after 1750, the Lakota discovered the Black Hills, an area that became their spiritual center. The United States bought the area of South Dakota from the French through the Louisiana Purchase in 1803 and soon after that the Lewis and Clark expedition made contact with the Lakota on the Missouri River. The first permanent white settlement at Fort Pierre on the Missouri River in 1817 was followed 30 years later by the major westward migration of white settlers moving into the area of Plains Indian country. At that time millions of buffalo, necessary for Lakota survival, abundantly roamed the plains. After 1825, the federal government began a policy of removing Native Americans to the west, and some tribes did not agree.

By 1861 Congress created the Dakota Territory, which consisted of what are now the states of North Dakota, South Dakota, Wyoming and Montana. In response, Lakota Chief Red Cloud waged war from 1866-68, the most successful Indian war fought against the U.S. government. This war ended with the Fort Laramie Treaty, which guaranteed the Lakota possession of what is now the western half of South Dakota, including the Black Hills, along with much of Montana and Wyoming. By 1870 the buffalo herds in this area had diminished to crisis levels for Plains Indians, killed in part by forces of the U.S. government. After Custer announced the discovery of gold in land that had been given to the Lakota, the resulting influx of white settlers brought about the Lakota War in 1875 and the Battle of Little Big Horn in 1876. In 1877, the U.S. government took back the Lakota Black Hills and millions of additional acres, thus breaking the Fort Laramie Treaty. Continued rebellion by the Lakota against U.S. Government and its policies was now difficult to maintain because buffalo had all but disappeared and the Lakota now lived on handouts from the federal government. By 1888 the Oglala Lakota had moved onto the Pine Ridge Agency (Reservation).

After South Dakota became a state in 1889, the government reduced the size of Lakota land and attempted to force the tribes onto smaller reservations. When this failed, the cavalry caught Lakota leaders and a group of 300 others and in 1890 massacred them at the area called Wounded Knee. Historically, this event marked the end of armed conflict in the Indian Wars. From that time to the present the Lakota people have struggled with poverty, poor health, and despair. In 1973, armed Lakotas seized the village of Wounded Knee and occupied it for 71 days over a tribal leadership dispute. A 1980 U.S. Supreme Court decision ordered the federal government to pay South Dakota Indian tribes 122.5 million dollars for land seized by the government in 1877. To date, this has not been accepted by the Lakota nation. In February 2010, activist and Lakota leader, Russell Means (1940-2012), petitioned 'All Nations of the World' for 'recognition of Lakotah's Sovereignty.'
Even though there are hundreds of North American tribes, they can generally be placed in two main cultures, Northern and Southern. The Lakota, which means “people who are spiritually harmonious,” are Northern Oglala. Sometimes called Tetons or “prairie dwellers,” they have seven bands or subdivisions that all speak similar dialects of the Lakota language. Two of the most famous Native Americans were Oglala Lakota, Chief Red Cloud and Chief Crazy Horse, both of whom resisted the loss of their traditional culture and lands.

The medicine wheel design is an important part of Native American culture. Colors, animals, and human qualities are linked to the four global directions in the design. In a standard interpretation, the east is represented by the yellow and the elk or white tail deer. The west represents the black, the horse and thunder. The north is represented by the red and the buffalo. Finally, pointing south is white, the eagle and all other animals. There are four human qualities represented including wisdom, generosity, courage or valor, and love. The heavens are represented by all winged animals and the earth by subterranean animals like the mole. All of these ideas are sung about in song texts. These designs are often used as decoration on the drum (see Lakota Frame Drum image in Resources section). The circle is also expressed in all Lakota dancing, for example, the Lakota hoop dance.

Drumming represents the heartbeat of people. Men traditionally “sit at the Drum” or play the Drum. Women stand behind so they can be heard and sing the important high notes. Some songs have words but many have “vocables,” a word that does not have meaning or is just a sound. Vocables are usually a syllable made up of a vowel that is combined mainly with w’s or h’s (hay, yay, yah, we, wi, wo, wu). Songs are usually in two parts, with the second a repeat of the first. The singers are usually also drummers and the lead singer is often the lead drummer. It is an honor to be the lead singer/drummer, the person who starts and controls the song and dance. Good singers place the words or vocables between drumbeats as often as possible called “singing off beat.” The term “harmony” refers to how singers adjust the strength of their drum strokes so no one will play louder than others at the drum. This music is learned at an early age.

Among the Lakota there are four categories of musical instruments: voice or ho (ho), drums or bu (boo), flutes and whistles or jo (jo), rattles or hla (hla-swallow the h). The powwow or “gathering” requires the large bass drum. For smaller events, like a sweat lodge, a singer will use the hand or frame drum. The Lakota Drum, or cancega (chanchega-swallow the g), is made in the traditional way from a tree trunk (or octagonal frame) with skin drumheads, but a modern band drum with plastic drumheads might also be used. To get a low tone the drumheads are kept somewhat loose and sometimes muffled with tape. Drumsticks are tree branches or fiberglass fishing rods with wool tips and covered in leather or colored tape. The cancega is considered the sacred center for tribal ceremonies as a gift for prayer from the Great Spirit. Even for social gatherings it is treated with respect. It is thought of as a living entity and even given food by drum keepers. Once a year or so, the drum keeper puts on a festival and everyone will eat on behalf of the drum. Four foods would be prepared, including a meat (deer or buffalo), fruit (wild berries), vegetable (corn), and water. Some food would be ceremonially placed next to the Drum.
Rhythms: There are four basic rhythms used for dance songs. These are expressed at the powwow, the main social event that is open to all tribes and the public. There are seven basic Lakota dances that use four basic rhythms representing the four directions: (1) Regular Beat – steady pulse but can have slight syncopation—every two beats come slightly closer together; (2) Honor or Parade Beat – the sound of a heart beating, soft, loud…, at certain points in a song to honor the dancers or honor the memory of a person; (3) Two Beat or Round Dance Beat—a steady two beat pulse with heavy syncopation—every two beats are very close together; and (4) Combination Rolling Beat and Fast Regular—a fast drum roll, a pause, then a fast steady beat. Other terms are “One Beat” – the main drum rhythm of a tribe and “Half Beat” rhythms from other tribes that go slower or faster. The lead drummer can signal changes or the song’s end with heavy strokes.

The dances that use these rhythms are: Traditional—for many tribes; Flag—a national anthem with no dancing; Veteran’s—for any veteran; Sneak Up—a dance of surprising an enemy/animal; Round—for couples; Honor—to honor anyone; and the private, sacred Sundance.

Listen & Play Along: *Use Roots of Rhythm CD Notes to support this section.

Note to teachers: if instruments are not readily available, consider having students make their own (a general activity for making drums can be found in the Roots of Rhythm: Introduction section) or encourage them to improvise - using everyday items such as buckets, containers, phone books, desk tops, etc., as instruments. Rhythms can also be created with body percussion including hand clapping, foot tapping, finger snapping, etc.

Listen to Track 59 of the Roots of Rhythm Companion CD to hear the heartbeat sound of the Lakota Drum. After listening, cover your ears with the palms of your hands and listen to your heartbeat. Does it speed up and slow down? Is it steady? Are all beats the same loudness? Does it sound like what you just heard?

Now it’s time to play a Lakota Drum. First, you’ll need a frame drum: use a large frame drum and add a handle, if it does not already have one, with some packaging tape in the shape of a plus sign attached to the frame (see Resources section). If you don’t have a drum, you can use a thick phone book.

Once you have an instrument to play, listen to Tracks 58-59 of the Roots of Rhythm Companion CD to hear two basic rhythms of the Lakota Drum. Then, listen to Tracks 60-63 of the Roots of Rhythm Companion CD and play along with four rhythms that you hear. Continue to play along with the CD and play with each rhythm, and listen for the leader’s signal that can end a rhythmic segment (heard on Track 64). Please note: these four rhythms are notated using a dot notation in the Resources section.
Lakota Drum:

Handle Side.

Photographs by Craig Woodson.
Resources: Lakota Frame Drum Rhythms

Lakota Frame Drum

Bottom View
Handle with four directions

Top View
Four directions are designs on drumhead. The center represents the Great Spirit or Creator.

14”-20”

Lakota Dance Rhythms

1. Regular Beat
   (slight syncopation)
   Regular
   (two beats slightly closer together)

2. Honor Beat/Parade Beat
   (heartbeat)
   (two beats very close together)

3. Two Beat/Round Dance
   (heavy syncopation)
   Rolling
   Stop
   Fast Regular

4. Combination Rolling Beat
   and Fast Regular Beat

Lead drummer’s signal
   Lead drummer’s signal (top)
   Drum group’s beat (bottom)

End Beat

Note:
1. The dot size is the loudness, the bigger the dot the louder the drum stroke: ● ● ● ●
2. The distance between dots is the rhythm.
3. All hits are with the right or left hand, and in performance the drummer switches hands.
4. Slight syncopation means that every two beats come slightly closer together. Heavy
   syncopation means that every two beats are very close together.
5. Signals are louder beats given by the lead drummer for a change in the rhythm or the end.
FUNSHEET - COMPARE AND CONTRAST: THE LAKOTA DRUM

Directions: A Venn diagram is a chart that shows similarities and differences between two things. First, read the paragraphs below and then think of at least five things to write in the Venn diagram for each outer part of the rounded shape (differences) and five things to write in the intersecting part (similarities).

The Lakota Drum is a frame drum with one drumhead used by the Lakota in South Dakota. While holding the drum's handle with the left hand, the drummer strikes the drumhead with a long, padded beater with the right hand. Sometimes the drummer will add a buzz to the drum's sound by slightly touching the drumhead with the left index finger. One important 3-count rhythm is the "heartbeat rhythm," because it sounds like a beating heart. It is played to accompany singing and dancing at social events like a powwow and official ceremonies.

The Lakotas, or Oglalas, mostly live on the Pine Ridge Reservation in South Dakota and have a population of almost 21,000. The climate in this area can be extremely hot or cold. The state is named after one of the three Oglala tribes, the Dakotas. The eight teepees on the Lakota's flag symbolize the eight Reservation districts. British settlers built colonies in North America in the 1600's and began to push the Native Americans westward forcing the Lakotas onto reservations in the 1800s. This legal issue has yet to be settled by the Lakota nation.

The tabla is a set of two small kettledrums from India. By playing the head of each drum with the fingers and hands, the drummer can quickly change the pitch of each drum. Drummers use syllables for tabla sounds in a type of “drum” language. The syllable "naa" sounds like "naa" on the drum. One important 16-count rhythm is Tal Tintal (tol teen-tol). It is played to accompany singing and dancing in concerts and is used for meditation.

India, a country in South Asia, is one-third the size of the United States and it has a population of over 1 billion. The climate can be cold, hot, or rainy depending on the area. India has some of the most fertile soil in the world. The blue wheel in the center of the flag symbolizes the idea human chakras, or centers of energy in the body. The area of North India was first invaded in 1500 B.C., but rule by outsiders ended when India gained its independence from Great Britain in 1947.
The Lakota Drum

Lakota Flag

A Venn Diagram for the Lakota Drum and Tabla

The Tabla

Flag of India
**Instrument:**
*Naqqāra*, military kettledrums

**Country:**
Turkey

**Flag:**
Red has been prominent in Turkish flags for 700 years. The star and crescent are Muslim symbols. The star was added by the Christian Emperor Constantine for the Virgin Mary, and the Ottoman Turks retained it in 1493. The flag has been used since 1844 and became official in 1936.

**Size and Population:**
Turkey has an area of 300,948 square miles, slightly larger than Texas, and has a coastline of 2,211 miles. It has an estimated population of 80,694,485 as of July 2013; ranked 17th in the world.

**Geography and Climate:**
Turkey lies both in Europe and in Asia. The southeastern tip of Europe is Thrace, the site of Turkey’s largest city, Istanbul. To the east is the rest of Turkey, a large mountainous peninsula called Anatolia or Asia Minor, an area with several large cities including the capital Ankara. This land has rich farmland but much of it is rocky and barren. Turkey borders Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Iran, Iraq, and Syria. Three seas border the nation: the northern Black Sea, the western Aegean Sea, and the southern Mediterranean Sea. The Straits, three important bodies of water that have played a major role in Turkish history, separate Thrace from Anatolia. The western valleys are fertile areas for growing barley, corn, wheat, and olives but a narrow strip along the Mediterranean Sea requires irrigation for grain, fruits, and cotton. The eastern plateau has high mountains extending to Turkey’s border. The Pontic Mountains in the north have few roads and railroads crossing them. The southern Taurus Mountains cut off most of the Mediterranean Sea from the central plateau region. The Mesopotamian lowlands, bordered by the Tigris and Euphrates Rivers in the southeast, are excellent farming areas.

Turkey’s climate varies greatly across the country. The coasts have rainy winters and dry summers. The Aegean Sea coast can get temperatures above 90° F. while northern Turkey has mild summers and very cold winters with temperatures as low as -40° F. Rainfall ranges from 20...
inches along the western Aegean Sea to more that 100 inches near the Black Sea in the north. There is little rainfall on the western plateau making it difficult for farmers.

**Background and History:**
Turkey is one of seventeen Middle Eastern countries that are interconnected by history, religion, and culture. Asian and European peoples have ruled what is now Turkey since ancient times. In the 1300s, Muslim Turks called the Ottomans began building a strong empire that controlled much of the Middle East, southeastern Europe and northern Africa. This meant that Islamic law controlled Turkish life for almost 1,000 years.

The earliest known people of Turkey, the Hittites, ruled Anatolia around 1500 B.C. They were conquered by the Romans in 63 B.C. After his conversion to Christianity in 330 A.D., Constantine the Great moved the capital of the Roman Empire to Constantinople, what is now Istanbul. In 1071 A.D., the Seljuk Turks conquered most of Anatolia (now central Turkey), and almost three hundred years later the Ottoman Turks captured Constantinople, which marked the historical beginnings of the Ottoman Empire (1326-1922). The Ottomans captured Constantinople in 1453, ending the Byzantine Empire. The Ottoman Empire reached its peak in the 1500s, ruling much of the Middle East as well as parts of northern Africa and southeastern Europe. In 2013, the chief of state is President Abdullah Gul (2007); the head of government is Prime Minister Recep Tayyip Erdogan (2003).

A series of military defeats between 1783 and 1914 gradually reduced the territory of the Ottomans, and as an ally of Germany, Turkey lost much of its remaining land after WWI. In 1923, Mustafa Kemal Atatürk (a title meaning “father of the Turks”) set up the Republic of Turkey and began a nationwide modernization effort that included doing away with many Islamic traditions. Turkey joined the United Nations in 1945 and soon afterward the U.S. gave aid for Turkey’s resistance to Soviet expansion. After a military coup in 1960, free elections followed a year later. Turkey intervened militarily on the island of Cyprus in 1974 to protect Turkish Cypriots and prevent a Greek takeover. There was a second military takeover in Turkey in 1980 and again a return to civilian control in 1983.

Relations between Turkey and Greece have improved over the past several years. Turkey is now in a period of economic growth.

**Culture:**
Nearly all of the Turkish people are Muslims, followers of Islam. However, in the 1920s the government discouraged or forbade people from practicing Ottoman traditions of the past, particularly those customs associated with Islam. Turkish people are 70-75 percent Turkish and 18 percent Kurdish, an Islamic group living in southeast Turkey. The population is 99.8 per cent Muslim with the remainder composed of Christians and Jews. The official language is Turkish, but Kurdish, Arabic, Armenian and Greek are also spoken. As a developing country, over half of the workers are farmers but since the 1940s the economy has become more industrialized. About half of present-day Turks live in the cities and half live on farms. Houses range from thatched roof homes to those built with cement blocks for the middle class. Turks are famous for their shish kebab (shish kah-bob), meat and vegetables cooked on a stick. A favorite sport is wrestling while covered in olive oil. Students are required to attend school until age 15, and 87 percent of people over the age of 15 can read and write. One of
Turkey’s major artistic contributions is in architecture, particularly its great domed Byzantine cathedrals and Islamic mosques.

The musical focus of this lesson is the *naqqāra* (nah-car-ah), two small kettledrums used in one of the most influential types of music from Turkey’s past, the Janissary (jan-uh-sehr-ee) or *Mehter* (mek-tair) military band. In Turkish military terms a Janissary is a highly trained professional soldier forming the core of the sultan’s guard, first established in the 1300s. This group originally consisted of slaves and prisoners of war, but even as disciplined soldiers they were considered slaves of the sultan, a Muslim monarch in Turkey.

Over many centuries the Ottoman Turks expanded their empire through military conquest, and as they did, percussion music was an important part of those battles. Percussion was important for three reasons: it inspired soldiers to win, it signified the importance of the leaders, and it frightened the enemy. This military music was performed as a sign of majesty, splendor, and power even though the music itself evolved from humble carnival music. The dignity and sacred nature of the state are expressed in the hitting of the drum. Composers of this type of music carefully used these instruments for this desired effect. During a war the ruler was housed in a large tent and the ruler’s two large kettledrums or *kös* (coss) stood in front of his tent. The *kös* are a larger version of the original *naqqāra* kettledrums. The Janissary or *Mehter* band played under the ruler’s standard or emblem, and the two were always used together.

The *Mehter* band began in 1299 when Osman Gazi was given a *tabl* or *davul* as a symbol of his new high rank of bey or lord. The *Mehter* band played when the ruler left the tent, and the *kös* played special beats to demonstrate the ruler’s power (called “beating the *nevbet*”), especially to cause fear in the enemy. The *kös* would signal the soldiers when to attack or halt. If the *Mehter* was destroyed the battle could more easily be lost. During peace the drums and *Mehter* were used to help spread news and announcements on behalf of the state. The largest and most important *Mehter*, the Sultan’s *Mehter* Band or “Tabl ü alem-I hassa” would have nine of each instrument (see Music: Instruments & Rhythm section below); later up to sixteen might be used. Aside from the ruler, other important people in the government might have their own *Mehter* band and these groups would be found in many provinces in the country.

As Ottoman expansion moved into southeastern Europe, the power and effect of *Mehter* music made a tremendous impression on European composers. The German Christoph Gluck (1714-87), the Austrian Wolfgang Mozart (1756-91) and the German Ludwig van Beethoven (1770-1827) were impressed by these bands and incorporated this music and these instruments into their compositions. As a result of this influence, many of the wind and percussion instruments found today in the modern marching band and concert orchestra came from the Turkish Janissary bands. Today’s drum majors likely originated with the *Mehter* conductor. The long association of kettledrums with trumpets can be heard today in the theme music for the Olympic Games.

Janissaries lasted for hundreds of years but were dissolved in 1826 when they threatened the sultan’s authority. Reestablished in 1914, the Royal *Mehter* Band, called the *Mehtherhane-I Hakani*, was attached to the Imperial Military Museum. The band was abolished again in 1935 until 1952 when it was reformed as an institution of historical importance at the Istanbul Military Museum. Today this band performs several times a week and at special official ceremonies. It
reminds the Turkish people and visitors about the significance and history of the Ottoman Empire.

**Music: Instruments & Rhythms**

**Instruments:** The Mehter band might have six long trumpets or borus (bo-ruz), ten long oboes or zurnas (zur-nahs), six pairs of cymbals or zils (zilz), eight large cylindrical drums or davuls (duh-vuls), several pairs of large kettledrums or kös, and eight sets of small kettledrums or naqqâra. Whether marching or mounted on horseback, this ensemble projected a wall of sound that could be heard far into the distance. Percussion instruments used in the Mehter band are shown below in the Resources section.

The Arabic naqqâra has many names including nakkare, naghara, and naker; today it is commonly referred to as küdüm in Turkey. Its forms vary as well, but the instrument mainly consists of two small bowl-shaped kettledrums made of metal, wood, or clay with skin heads that are laced on to the drums. The two drums are slightly different sizes, under a foot in diameter, often have gut snares, and are tied together and attached to the player’s waist or held at the left side against the body. A stick inserted through the lacing on the drum increases tension on the head. Naqqâra are usually played with small cloth-covered beaters. The kös are a large version of the naqqâra made of copper, covered with decorative cloth, and struck with large sticks. A version of the naqqâra called nakers reached Europe by the 1200s and was used in many types of music. Because of this, the Arabic naqqâra are considered the predecessors of the modern European timpani. The naqqâra likely originated in Syria as a portable set of drums with nomadic tribes.

**Rhythms:** There are many Middle Eastern rhythms but this lesson will focus on two distinct Arabic rhythms played by a Mehter band: one has eight fast counts and the other has nine slow counts. When referring to rhythms in the Middle East, the three basic strokes on a drum help with the rhythm. The stroke “dum” stands for a low sound and “tak” for a high sound; two fast high strokes would be “taka,” either two hits by the same hand or a combination of right and left. The musicians march to a distinctive rhythm--after three beats they turn to the right and left, followed by these words in Arabic: “Rahim Allah, Kerim Allah” (Merciful God, Gracious God).

The two rhythms presented in this lesson, Ayub (eye-yoob) and Karsilama (car-see-lah-mah), are two important types of Turkish beats. Ayub is a fast eight-beat count with an alternating “dum” and “tak,” but the “tak” after the first count is slightly delayed. So instead of playing the sounds “dum….tak….dum….tak,” the Ayub rhythm is “dum……tak dum….tak.” The repeated “dum” sound gives the rhythm a trance quality, which is why it is used by the whirling dervishes, a Muslim religious sect in Turkey. The second rhythm, Karsilama, means “face to face,” a reference to its use in dance. Its slow nine-count rhythm has double time or “taka” hits on most of the “tak” strokes as follows: “dum…taka…dum…taka…dum…taka…dum…taka.”

**Listen & Play Along:** *Use Roots of Rhythm CD Notes to support this section.

Note to teachers: if instruments are not readily available, consider having students make their own (a general activity for making drums can be found in the Roots of Rhythm: Introduction section, and a specific naqqâra-making activity can be found in the Resources area of this section) or encourage them to improvise - using everyday items such as buckets, containers,
phone books, desk tops, etc., as instruments. Rhythms can also be created with body percussion including hand clapping, foot tapping, finger snapping, etc.

Listen to Track 65 of the Roots of Rhythm Companion CD to hear the sound of the naqqāra in Mehter music. Listen to Track 66 for the Karsilama rhythm. Now it’s time to play along. If you don’t have these instruments, see the Resources section for instructions on how to make your own naqqāra, or use instruments from the music classroom as substitutes. For example, use bongos for the naqqāra, two tom toms, large and small, for the kōs, small “rhythm instrument” cymbals for the zils, and a medium tom-tom for the davul. Find a thin twig to hit the left side of the davul for the “smack” sound.

Listen to Track 67-76 of the Roots of Rhythm Companion CD and play along with the rhythms. Say the “dum” and “tak” sounds along with the Ayub rhythms on the CD. If you can say it, you can play it. Have others say or clap the various rhythmic parts with you, as students do in Turkey. Now add the double “taka” hits as you try the Karsilama rhythm.

Listen to the CD again, read the notation and play the Ayub and Karsilama rhythms provided in the Resources section below. Try the accented rhythms in bold first.

**Naqqāra:**

Photograph by Craig Woodson.
**ROOTS OF RHYTHM - CHAPTER 8: THE NAQQĂRA FROM TURKEY**

**Resources: The Mehter Percussion Section with Naqqăra Rhythms**

**Mehter Percussion Ensemble Rhythms: Ayub and Karsilama**

**Ayub**

<table>
<thead>
<tr>
<th>Count</th>
<th>Naqqăra</th>
<th>Davul</th>
<th>Zils</th>
<th>Kös</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>L = <strong>bold</strong> for accent</td>
<td>R = low “dum” sound</td>
<td>L (no underline) = high</td>
<td></td>
</tr>
<tr>
<td>dum……………</td>
<td>[R L R L R L R L]</td>
<td>[R L L R L L]</td>
<td>[X X]</td>
<td>[L]</td>
</tr>
</tbody>
</table>

**Karsilama**

<table>
<thead>
<tr>
<th>Count</th>
<th>Naqqăra</th>
<th>Davul</th>
<th>Zils</th>
<th>Kös</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>II = 2 fast hits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dum taka dum taka dum taka dum tak taka</td>
<td>[R II R II R II R L II]</td>
<td>[R L R L R L R L II]</td>
<td>[X X X X X]</td>
<td>[L R L L]</td>
</tr>
</tbody>
</table>

**Making Your Own Naqqăra:** Make your own naqqăra with two different sizes of flower pots (Ex. 6” and 7” diameters), packaging tape, two chopsticks, scissors and sandpaper. Follow the steps shown in the Introduction section of this guide, but first sand the top rim of each pot. Add a protective wad of tape before joining the two drums together with a double wrap of tape around both drums.
The naqqāra (nah-cah-rah) is set of two small kettledrums that are played in the middle eastern country of Turkey. These kettledrums were used in one of the most important types of music from Turkey’s past, the Janissary (jan-uh-sehr-ee) or Mehter (mek-tair) military band. This type of band began in 1299 when a leader was given a drum called the davul (duh-vul) as a symbol of his new high rank. A large version of the naqqāra called the kös (cos) played special beats to demonstrate the ruler’s power and especially to cause fear in the enemy. The kös would signal the soldiers when to attack or halt. During peacetime, Turkish leaders used the drums and Mehter to help spread news and announcements. Aside from the rulers, other important people in the government might have their own Mehter band and these groups were found in many Turkish provinces. This percussion music spread to new parts of the world because it took place during a time when the Turkish military conquered many surrounding areas in Europe, North Africa and the Middle East. The expansion called the Ottoman Empire lasted from 1326 to 1922.

Over many centuries, the Ottoman Turks expanded their empire through military conquest, and as they did, percussion music was an important part of those battles. Percussion was important for three reasons: it inspired soldiers to win, it signified the importance of the leaders, and it frightened the enemy. This military music, that included the zils, or cymbals, was performed as a sign of majesty, splendor, and power even though the music itself evolved from humble carnival music. The dignity and sacred nature of the state are expressed in the hitting of the drum.

The naqqāra are made from two clay bowls with goat skin drumheads tied on. Sometimes the drums are tied together. They are played with two beaters.
Directions: Read each of the following sentences and draw an X in the box to tell whether it is a fact or an opinion.

1. The *naqqāra* should always be played very loudly. □ Fact □ Opinion
2. The *naqqāra* are a set of two kettledrums from Turkey that were played in Janissary bands. □ Fact □ Opinion
3. Turkey is a country in the Middle East. □ Fact □ Opinion
4. The *Mehter* military band started in 1299. □ Fact □ Opinion
5. The *kös* are large versions of the *naqqāra* and are supposed to signify the power of the ruler. □ Fact □ Opinion
6. Turkish music should be played in China, Japan and other Asian countries. □ Fact □ Opinion
7. The Ottoman Empire lasted from 1326 to 1922. □ Fact □ Opinion
8. The best sound of *Mehter* music is when the *zils* are playing. □ Fact □ Opinion
9. Having lots of Turkish percussion instruments play together must have been difficult. □ Fact □ Opinion
10. The *naqqāra* are made from two clay bowls with goat skin drumheads tied on to them. □ Fact □ Opinion

*Mehter Percussion:*  
![Diagram of Mehter Percussion Instruments]

*Naqqāra*  
*Zils*  
*Kös*  
*Davul*
Instrument:
*Ranāt ēk*, a xylophone leader

Country:
Thailand

Flag:
The central band was originally red but was changed to blue to express solidarity with the Allies during World War I (1917). The flag's colors date back to the 14th century. Red stands for the nation, white stands for purity, and blue stands for the monarchy.

Size and Population:
Thailand (tie-land) has an area of 198,115 square miles, over twice the size of Wyoming, with 1,635 miles of coastline. The population is estimated at 67,448,120 as of July 2013; ranked 20th in the world.

Geography and Climate:
The country of Thailand has four main regions. There are dense forests in the Northern Mountains that have fertile land because of mountain streams. The Khorat (kor-at) Plateau in the northeast makes up 30 percent of the country and is the most populated area. Irrigation from the Mekong (meh-kong), Chi (chee), and Mun (moon) Rivers provides moisture for the Plateau’s dry, sandy surface. Fertile soil on the Central Plain enables the greatest amount of rice to be grown in the country. Several rivers combine into what becomes the Chao Phraya (chow pra-yah) River, Thailand’s main transportation route. The southern peninsula consists of part of the Malay Peninsula, containing jungle, mountains, and hills. The capital city is Bangkok in the central part of country near the Gulf of Thailand.

Thailand’s climate is generally tropical, humid and rainy. The mountainous areas are cooler, with temperatures as low as 32° F. Throughout July and December large storm-like conditions called monsoons bring much rain and wind to the region.

Background and History:
The people of present-day Thailand are said to have come from southwest China some 3000 years ago. It was on the trade routes from India to China and brought in elements of Indian culture, some from the sea and some from Sri Lanka. As the Monguls invaded China refugees pushed southward. By the 1200s these areas became over-populated forcing many people to
move further south and in 1238 the first Thai nation was established. In 1350, a group of Thai people established a kingdom in central Thailand with the capital city of Ayuthaya (ah-u-tah-yah). Up until 1767 this kingdom fought many wars with surrounding countries. Originally called Siam, the name Thailand in the Thai language is Muang (mu-ang) Thai (tie), meaning “land of the free.”

The first European contact was with the Portuguese in the early 1500s followed in the next century by contacts with Spain, England, France, Japan and the Netherlands. Thailand, however, is the only Southeast Asian country never to be ruled by a Western power. In 1782, a new dynasty took control and the capital was moved to Bangkok. King Mongkut in the mid 1850s encouraged study of the Western languages and science. Thailand supported the Allies in WWI but was invaded by Japan, and joined that country against the Allies in WWII. Ties with the U.S. were strengthened after WWII and American bases were established there for the Vietnam War.

Since the 1970s, Thailand has been one of the most successful Southeast Asian countries and has also experienced an influx of millions of refugees from surrounding countries. The military took control in 1991 but it has been a democracy since and today the country is a constitutional monarchy, led by King Phumiphon (pum-e-pon). Thailand is one of Southeast Asia’s best economic performers.

Culture:
The majority of the country’s people are Thai, but the population also includes Chinese people and people from other countries. Most Thai people are Buddhist and live by farming in villages. All villages have a school and a wat (wot), a Buddhist temple. Men and women used to wear the traditional panung (pon-nung), tightly wrapped colorful garments. According to Buddhist custom men over 20 years old are expected to serve as monks for several months and many do. To become a monk, the person must be officially ordained before the age of 21. Most Thai people can read and write, but there are low numbers of graduates from high school. Rice is eaten with almost every meal and meals include spicy stews, salads and meat. Thai kickboxing and soccer are favorite sports. Artistic expression is influenced mainly by Buddhism and includes beautiful temples, dances and paintings. The literature includes classical dramas and epic poems or works about modern Thailand. Thai musical traditions emphasize melody and layers of rhythm.

Music: Instruments & Rhythms
Instruments: There are many types of musical instruments in Thailand. These include bowed and plucked string instruments, end-blown flutes and oboes, and a large variety of percussion instruments, from many sizes of cymbals and gongs, and frame, goblet, and barrel drums to metallophones and xylophones (xylo = wood, phone = sound). The focus of this lesson is a xylophone called the ranät ēk (raw-not ek, and ēk means leader), the lead instrument in the pī phat (bee pot) ensemble, one of the most distinctive types of music in Thailand. This group of instruments consists of melodic and rhythmic percussion instruments, small hand-cymbals, gong, and one oboe. While this ensemble can be small, medium or large we will look at the smallest type since it includes all of the basic instruments. The pī nai (bee nye) is an oboe with two folded reeds and gives the ensemble its name.
The ranāt ēk is a high-pitched xylophone that has 21 keys suspended on a box resonator. Each key is tuned by gouging out some of the wood in the middle and adding some bee’s wax and lead shavings in a paste at each end of the bar. It is important to note that the musical tuning of the Thai scale has equal distances between notes but the European scale, which is used in America, does not. Here is how the ranāt ēk scale compares to the American xylophone scale.

| Thai ranāt ēk | 1__2__3__4__5__6__7__1 |
| American xylophone | 1____2____3_4____5___6____7_1 |

You can see that the American xylophone scale has close distances between notes 3 and 4 and 7 and 1. This is why listening to Thai music sounds strange to American ears. Keep in mind that our music sounds just as strange to a person from Thailand. The ranāt ēk is very important because it plays the lead part in the pē phat ensemble and also plays the most number of notes in a rhythm (see the Resources section).

**Rhythms:** Thai traditional music is always in a two-beat pulse or meter. There are three tempos: slow, medium and fast. Each tempo has a corresponding percussion pattern played by the ching (ching), two egg-sized cupped cymbals, and their pattern indicates what musical tempo is being played. The accent of the ching falls on the last beat of a group of pulses (1, 2, 3, 4) opposite the Western way, which is to have the first beat emphasized (1 2 3 4, see Resources for ching beats).

The rhythms of Thai music are in the general category of “colotomic” rhythms, a structure also described as a stratified or layered rhythm. For example, some instruments in the ensemble are playing fast, others are playing at half of that speed, others are playing at still half of that speed and so on. The relationship, therefore, is 8, 4, 2, 1. In the pē phat ensemble, the ranāt ēk has the fastest rhythm at eight hits per two beat pulse; the klōng that (klong tat) has the slowest at one hit per pulse.

**Listen & Play Along:** *Use Roots of Rhythm CD Notes to support this section.

Note to teachers: if instruments are not readily available, consider having students make their own (a general activity for making drums can be found in the Roots of Rhythm: Introduction section, and a specific ranāt ēk-making activity is described below) or encourage them to improvise - using everyday items such as buckets, containers, phone books, desk tops, etc., as instruments. Rhythms can also be created with body percussion including hand clapping, foot tapping, finger snapping, etc.

Listen to Tracks 77-78 of the Roots of Rhythm Companion CD to hear the sound of the ranāt ēk. Now it’s time to play along. If you don’t have a ranāt ēk, see below for instructions on how to make your own ranāt ēk, or use instruments from the music classroom as substitutes: you can make a pē phat ensemble (see Resources section) using a recorder, xylophone, finger cymbals, glockenspiel (bells), conga drum, and bass drum.

Listen to Track 79-85 of the Roots of Rhythm Companion CD and play along with the rhythms. As you listen to the CD, have student groups clap the various colotomic rhythms from the fast eight count to the slow one count all at the same time. Now begin again and play it faster. Switch parts and play it slower. Which is harder, slow or fast?
Now try reading the notation in the Resources section and then playing along to the CD.

**Make Your Own Ranāt ēk:** Make a ranāt ēk with some wood “furring strips,” dowels, cardboard box, strapping tape, hacksaw and sandpaper. (1) Cut your 1” by 2” piece of wood into eight lengths, ¾” apart in length from 8” to 13¾”; (2) after sanding all pieces, lay them down in order of length, then tape over and under them in a large oval; (3) pinch the tape between each bar; (4) cut the box so that two opposite sides are kept high; (5) attach each end of the oval to the box as shown; (6) cut the 3/8” dowel into two 10” pieces; (7) number the bars from 1 to 8. Hit the wooden bars in the middle or on the end. Have a friend play some notes then you copy by hitting on the same notes right after they hit. This is the way Thai students learn on the ranāt ēk.

**Ranāt ēk:**

![Photograph by Terry Miller.](image-url)
Roots of Rhythm - Chapter 9: The Ranāt Ėk from Thailand

Resources: The Thai Ensemble & Ranāt Ėk Rhythm

Small Pī Phat Ensemble

Không wong yai (kong wong yai)

Klōng that (klong tat)

Ranāt Ėk

Ching Patterns for 4 Counts

Count 1 2 3 4
Slow _ _ _ 0 _ _ _ +
Medium _ 0 _ + _ 0 _ +
Fast 0 + 0 + 0 + 0 +
Special 0 0 0 0 0 0

Colotomic Rhythms from Sāthukān (sah-tu-gone) Composition

<table>
<thead>
<tr>
<th>Count</th>
<th>l</th>
<th>e</th>
<th>n</th>
<th>ā</th>
<th>2</th>
<th>e</th>
<th>n</th>
<th>ā</th>
<th>l</th>
<th>e</th>
<th>n</th>
<th>ā</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pī nai (oboe or recorder)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ranāt Ėk (xylophone)</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Không wong yai (orchestra bells)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ching (finger cymbals)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taphôn (conga drum)</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Klōng that (bass drum)</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please note:

1. The instruments in parenthesis are classroom substitutes for the pī phat ensemble.
2. The substitute for a ranāt Ėk can be a xylophone. The letters stand for notes in the C scale.
3. A substitute for the không wong yai can be a set of bells or a glockenspiel.
4. The ching 0 stands for let the instrument ring like the sound “ching,” and the + stands for hitting and holding them together to get a “chick” sound. Finger cymbals are a good substitute. This special composition, Sāthukān, has only open chings.
5. The taphôn (played with the hands) and klōng that (played with sticks) can be a tom tom and bass drum, respectively.
6. Sāthukān is a special composition (Ayuthaya Period 1350-1767) for starting a state ceremony.
The *ranat ek* (raw-not ek) is a wooden xylophone played in Thailand, a country that is located in Southeast Asia. This country, once called Siam, stretches north to south and at one area is very narrow (see map). The *ranat ek* performer plays an important part, the leader or conductor, in an ensemble or group of musicians called *piphat* (bee pot). Most of the instruments in the group are percussion, but one is a blowing instrument called *pinai* (bee nye). The word xylophone means "wood sound." It is played with two mallets with long handles so that all of the notes or bars can be reached easily. Much of the time the performer plays a "roll," fast alternating strokes…right, left, right, left, etc. This way the performer can play sustained notes as well as single hits. The performer often plays very fast and often hits in octaves (notes that are eight bars apart) at the same time. Because of this, the *ranat ek* players need to use their peripheral vision, that is, they have to be able to see many bars without looking at each one directly. The *ranat ek* performer sits on the floor, and plays music sometimes to accompany dancers.

*Directions.* Answer these questions about the *ranat ek*.

1. How does the *ranat ek* player sustain notes?

   ___________________________________________________________________

   ___________________________________________________________________

2. Looking at the map of Thailand, what part of the country gets very narrow?  
   [ ] northern  [ ] central  [ ] southern

3. Write a description of the *ranat ek* as shown in the photograph. For example, how many bars or notes are there? How is it supported and decorated?

   ___________________________________________________________________

   ___________________________________________________________________

   ___________________________________________________________________
Directions: Use the facts about the ranāt ēk that you have learned about in the paragraph and photographs and complete the puzzle.

Across:
3. The ranāt ēk player sits on the_____.
6. The ranāt ēk is played with two_____.
8. The pī nai is a_____instrument.
9. Ranāt ēk players can play _____ bars apart at the same time.

Down:
1. Fast alternating strokes
2. The ranāt ēk is a_____instrument.
4. Country in Southeast Asia
5. The ranāt ēk is a leader or_____.
7. Ranāt ēk music can accompany_____.
8. The notes on a ranāt ēk are also called_____.

Map of Thailand
**Instrument:**
*Sājāt*, ancient cymbals

**Country:**
Egypt

**Flag:**
Three equal horizontal bands of red, white, and black feature the national emblem in the white band. The emblem is a shield superimposed on a golden eagle above a scroll that bears the name of Egypt in Arabic.

**Size and Population:**
Egypt has an area of 386,662 square miles, with a coastline of 565 miles on the Mediterranean Sea and 805 miles on the Red Sea. The capital is Cairo and the country is slightly more than three times the size of New Mexico. The estimated population as of July 2013 is 85,294,388; ranked 15\textsuperscript{th} in the world, and second largest in Africa.

**Geography and Climate:**
Egypt is a Middle Eastern country located in the northeastern corner of Africa. Because most of the country is desert, the majority of people live and farm along the fertile area along the Nile River, the longest river in the world, and the other important waterway, the Suez Canal. The country borders the Mediterranean Sea, Libya, Israel, the Gaza Strip, Sudan, and the Red Sea north of Sudan, and includes the Asian Sinai Peninsula. The country’s four regions include the Western Desert, the Nile Valley and Delta, the Eastern Desert, and the Sinai Peninsula. Rains in central Africa flood the Nile Valley each year providing rich farmland.

Egypt has two seasons, scorching summers and mild winters. Temperatures range from a low of 45°F after sunset to 104°F in the deserts. North winds from the Mediterranean Sea cool the coast of Egypt during the summer. Hot driving windstorms called *khamsin* (*com-sin*) occur in the spring, along with dust storms and sandstorms. There are periodic droughts, frequent earthquakes, and flash floods, even though annual rainfall is only 8 inches on the coast and 1 inch inland.

**Background and History:**
Ancient Egypt, considered the birthplace of civilization, developed a great culture about 5,000 years ago. The area had the first national government, early forms of math and writing (*hieroglyphics*), and developed the 365-day calendar. The pyramids have survived for over 4,500 years and remind us of the ancient Egyptians’ expert engineering skills. The ancient period
began when King Menes united the people along the Lower and Upper Nile around 3100 B.C. The first pyramid was built about 2650 B.C., beginning the Old Kingdom known for its pyramid building. The Egyptian empire reached its height around 1490 B.C. with King Thutmose III who led conquests of Palestine and Syria. In 1070 B.C., Egypt began to decline as a strong nation. The last native dynasty fell to the Persians in 341 B.C., who in turn were replaced by the Greeks, Romans, and Byzantines. Alexander the Great took control of Egypt in 332 B.C. and one of his generals later founded the Ptolemaic dynasty. Queen Cleopatra VII became the last Egyptian ruler in that dynasty, and when she died in 30 B.C. Egypt became a province of Rome. Invading Muslims from Arabia conquered Egypt in 632 A.D. and introduced the Arabic language, ending Roman rule. A local military caste, the Mamluks (mom-looks), took control about 1250 and continued to govern after the conquest of Egypt by the Ottoman Turks in 1517.

After the Suez Canal was completed in 1869, Egypt became important as a hub of global transportation, but soon found itself heavily in debt. To protect its investments, Britain took control of Egypt in 1882, but the country continued its allegiance to the Ottoman Empire until 1914. Egypt gained partial independence from Britain in 1922, and full sovereignty after World War II. The country became an independent republic in 1953 and has played an important role in Middle Eastern affairs. Relations with Israel were first adversarial, with four wars taking place from 1948 to 1973, but disputes ended in 1973. In 1971, Egypt developed a constitution and in the same year the Aswan High Dam was completed, creating Lake Nasser and expanding agriculture beyond the Nile River in the country. The population grew to the largest in the Arab world, stretching resources and stressing society. Modern presidents, following the removal of the last monarch (King Faruk) from power in 1953, include Abdel Nasser (1954-1970), Anwar el-Sadat (1970-1981), and Mohammed Hosni Mubarak (1981-2011). In June 2012, Muhammad Mursi, a candidate of the Muslim Brotherhood, was elected President but overthrown by the military in 2013. Egypt’s official name is Arab Republic of Egypt.

**Culture:**

Today, Egypt is 99 percent Eastern Hamitic people, that is, Egyptians, Bedouins, and Berbers. The remaining 1 percent is Greek, Nubian, Armenian, and European (mainly French and Italian). Arabic is the official language, but English and French are widely understood. The country is 94 percent Muslim and 6 percent Coptic Christian and other religions. The present-day Coptic Church is one religion where cymbals are used to emphasize the hymn in a worship service as they were in ancient times. This practice dates back to the beginning of Christianity.

Much of the population lives in crowded cities and the rest are peasants or farmers, known as fellahin (feh-lah-heen), living along the Nile or Suez Canal. Some rural people are Bedouin, nomads who wander the deserts with their herds. Farmers live in villages and celebrate festivals, marriages, and births all centered in Mosques, or Islamic religious houses. While many people wear Western style clothing, many still follow the Muslim code in which women wear robes and cover their hair, ears and arms with a veil. A typical evening meal consists of bread dipped into a large bowl of hot vegetable stew. The favorite sport is soccer and people enjoy socializing by going to the outdoor market to visit with friends. The Muslim religion affects many aspects of an Egyptian’s life but Islam is officially controlled by the government. Egyptians age 10 and older can read and write. Despite problems in their system of education, graduates from the 33 Egyptian universities are among the best trained in the Arab world.
Egypt has a long artistic tradition of painting, sculpture, stories, and music dating back to ancient times. People enjoy traditional and classical music from the past as well as modern Egyptian and Western music.

**Music: Instruments & Rhythms**

**Instruments:** Generally, Egyptian musical instruments include a wide variety of flutes, reed instruments, trumpets, harps, small drums, and several types of rattles and cymbals. The drums that are used to play the rhythms for this cymbal lesson are (1) the goblet shaped *tabla* (tah-blah), also called the *darabouka* (daar-ah-boo-kah) with fish skin drumheads, (2) *mazhar* (mas-harr) and *duf* (duff), large frame drums with donkey skin drumheads, and the *riqq* (rick), a small frame drum with fish skin drumheads and small tuned cymbals. Of all the percussion instruments from ancient times, cymbals are more likely to survive for thousands of years because they are metal (drums made with wood and skin will deteriorate more quickly over time). Also, images of instruments, especially in stone and paintings, have survived to tell some of the story and as it turns out, ancient Egyptian cymbals closely represent those of today. The British Museum has two pairs of cymbals around 5 inches in diameter that were found on the coffin of the mummy Ankhape (on-cop-eh), a sacred musician, from around 100 B.C.

The word cymbal is derived from the Latin *cymbalum* (sim-bol-um), which comes from the Greek word *kymbalom* (kim-bol-um) meaning small bowl. In India, *tāl* (tol) is an ancient word for cymbal and comes from the Sanskrit word *tāla*, meaning palm of the hand or clap or meter (rhythm). Thus, cymbals have had a long association with keeping time in a rhythm. The focus of this lesson is the set of small Egyptian cymbals attached to the fingers or “finger cymbals” called *sājāt* (sah-got) in Arabic and called *zils* in Turkish. The *sājāt* (considered the plural form) are important in the history of percussion because it is likely that cymbals were first made small, and over the centuries were made larger to satisfy larger audiences. Whether small finger cymbals or larger hand-held cymbals, they are considered concussion idiophones (see Introduction for definition). There are two types: *crotales* (kro-tol-es) that have a definite pitch and ring like a bell, usually made by casting the metal; and cymbals without a definite pitch that have a clashing sound, typically cast and then beaten with hammers to form the final shape and define tonal qualities. The *sājāt* are of the type that rings like a bell. The word *sājāt* means metal trays and in reference to cymbals means two small cymbals held on the fingers in each hand.

Most of today’s cymbals originated in Turkey, China, or India, and while Egyptian ironwork dates back to at least 2000 B.C. they all likely share a common bronze cymbal technology learned from the Greeks after 500 B.C. The formula for making bronze cymbals today is an alloy of 80 percent copper, 20 percent tin, and traces of silver. It is important to note that Turkish cymbals gained enormous refinement in 1623 when Avedis Zildjian discovered a new process for treating traditional cymbal by making alloys in the casting process. Egyptian cymbals of today are of three types: large flat types, medium sized cymbals with a deep central cavity, and small cymbals sometimes attached to long forked handles. This lesson will focus on small cymbals—four per person on fingers, and medium size cymbals—two per person held in front.

Today, finger-held cymbals are mostly associated with belly dancing, and this type of dance called “Oriental dancing” by the Arabs is one of the oldest forms of dancing. The dance eventually became a dance of seduction and a performance dance by men and women. Larger
cymbals held by the hands appeared intermittently in Europe from the 13th century on, although they are believed to have been imported earlier. Turkish military music used cymbals in bands during expansion of the Ottoman Empire, and this led to the introduction of the cymbals into the orchestra. They gained a permanent position in the orchestra during the late part of the 18th century.

**Rhythms:** Egyptian rhythms for the sājāt are played along with the goblet drum and frame drum rhythms. For this reason, it is important to begin with an understanding of these drum sounds and rhythms. The two basic drum sounds are “dum” (dooom) for one low, un-damped tone and “tak” (tack) for one accented high damped tone. The rhythms described here are presented in eight counts for the non-musician, but they are usually thought of as being in four counts each with a two-count subdivision, or as two counts each with a four-count subdivision, as follows:

- **Eight counts:** 1 2 3 4 5 6 7 8
- **Four counts:** 1 + 2 + 3 + 4 + (+ = “an”)
- **Two counts:** 1 e + a 2 e + a (e = “ee” and a = “ah”)

Typically, there are three versions of Egyptian drum rhythms: 1) the “basic” form, a skeleton of the beat; 2) “filled” with in between hits; and 3) “accented,” which includes the previous two with several accents. For purposes of the sājāt, the examples below will use the “basic” form.

One of the most common Egyptian rhythms is called wahed wa nusf (wah-head wah noosf) as shown in the Resources section (Example 1). Some say the maqsoum (mock-sume) rhythm is the basis of Egyptian rhythms with its characteristic two dums at the beginning (Example 2). When this rhythm is slowed down it becomes the masmoudi #1 (mos-moody). American dancers call this rhythm baladi (bah-lah-dee), which means “from the country” or “old fashioned.”

Zaffah (zah-fah) is a march rhythm used in wedding processions as well as in belly dances that recall such events (Example 4). The rhythm called saïidi (sah-ee-dee) is popular in Upper Egypt (south) and played fast as an accompaniment to tahtib (tah-teeb), a traditional men’s martial arts stick dance to prove manhood; the female cane dance is a parody of the male dance (Example 5). This rhythm is also used among the Egyptian Ghawazee (gah-wah-zee). The fellahi (feh-lah-hee) rhythm is a common Ghawazee dance with songs of celebration in Upper Egypt (Example 6). Curcuna (joor-joon-nuh) is an example of rhythms that are combinations of 2+3 patterns (Example 7). In this case, the pattern for the 10 counts is 3+2+2+3 with a “dum” on counts one and five. This rhythm originated in Armenia and might be pronounced “gurgina” in Egypt.

The Kas (kahs) cymbal rhythms are all to be played at the same time (Example 8). They show how cymbals can be used to play polyrhythms like two against three—as shown in the darkened section of this notation on the Resources page. These rhythms are common in North Africa and found in Egypt.

**Listen & Play Along:** *Use Roots of Rhythm CD Notes to support this section.*

*Note to teachers: if instruments are not readily available, consider using substitute instruments described below, or encourage students to improvise - using everyday items. Rhythms can also be created with body percussion including hand clapping, foot tapping, finger snapping, etc.*
Listen to Tracks 86-88 of the Roots of Rhythm Companion CD to hear the sound of the sājāt. Now it’s time to play along. Snap your fingers or clap your hands along to the rhythms on Tracks 86-88 of the Roots of Rhythm Companion CD. Practice the drum rhythms first. If you don’t have a goblet drum or frame drum, find any drum to play along with the drum rhythms. Be sure to listen for the low tones and high tones and make the same sounds on your drum.

Now, use some finger cymbals and small cymbals (7-10” diameter) from the music classroom, or make some substitutes. For finger cymbals substitutes, place two different sized spoons right side up next to each other on a thick towel and strike the cups with two other spoons. Find two metal cooking lids that can be struck together for cymbal substitutes. Tie a 20” string from one lid handle to the other, then grab the string very tightly next to the cymbals and hit them together.

Follow the rhythms shown in the Resources section and play along with them on Tracks 89-97 of the Roots of Rhythm Companion CD. Use your classroom instruments or your homemade or substitute versions. For the hand-held cymbals, play just the two against three polyrhythm shown in bold “X’s” on the Kas notation.

Sājāt:

Finger Held Cymbals (Sājāt).

Hand Held Cymbals (Kas).

Photographs by Craig Woodson.
Resources: Egyptian Cymbal Rhythms

Egyptian Rhythms for Sājāt

Hands
Left  Right

Notes:
1. “Dum” = low drum tone and “tak” = high drum tone.
2. R or L = hands hitting the sājāt together.
3. The sājāt can also just play R L R L R L R L.
4. This is shown for a right-handed person.

Examples:

Say

1. Wahed wa nusf
   The main Egyptian rhythm
   [R L ....... tak dum ....... tak] 1 2 3 4 5 6 7 8
   Say [dum dum ....... tak dum ....... tak]

2. Maqsoum
   Slowed it is Masmoudi #1
   [R R L L] 1 2 3 4 5 6 7 8
   Say [dum dum ....... tak dum ....... tak tak]

3. Masmoudi #1
   Play half as fast as maqsoum
   [R R L L L L] 1 2 3 4 5 6 7 8
   Say [dum tak tak ....... dum tak dum tak dum]

4. Zaffah
   Wedding march, a rest on 8
   [R L L R R R R] 1 2 3 4 5 6 7 8
   Say [dum tak ....... dum dum ....... tak]

5. Saaidi
   Martial art stick dance rhythm
   [R L R R L L] 1 2 3 4 5 6 7 8
   Say [dum ....... tak ....... dum tak tak tak]

6. Fallahi
   Farmers’ song rhythm
   [R R L L L L] 1 2 3 4 5 6 7 8
   Say [dum ....... tak ....... dum tak tak tak]

7. Curcuna
   For cabaret dancing
   [R L L] 1 2 3 4 5 6 7 8
   Say [dum ....... tak ........ dum tak tak ....... tak]

8. Kas Rhythms

Hand-Held Cymbals

Off center

Kas Rhythms in 12 Counts

<table>
<thead>
<tr>
<th>Count</th>
<th>(Player #1)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X X X X X X X X X</td>
<td>X X X X X X X X X X X X X X</td>
<td>X X X X X X X X X X X X X X</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Player #2</td>
<td>X X X X X X X X X X X X X X</td>
<td>X X X X X X X X X X X X X X</td>
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<td></td>
</tr>
<tr>
<td>Player #3</td>
<td>X X X X X X X X X X X X X X</td>
<td>X X X X X X X X X X X X X X</td>
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<td></td>
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</tr>
<tr>
<td>Player #4</td>
<td>X X X X X X X X X X X X X X</td>
<td>X X X X X X X X X X X X X X</td>
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<td></td>
</tr>
</tbody>
</table>

Polyrhythm: 2:3

Two hits on 1 & 4 in the same time as three hits on 1, 3 & 5 all fitting in 6 counts.

Note: X = Hit cymbals together keeping them damped and off-center when they strike.
The säjät (sah-got) are a pair of small finger cymbals used in Egyptian music by belly dancers in what the Arabs call "Oriental dancing." These instruments were probably invented around 2500 years ago. The säjät are a type of bronze cymbal that are supposed to ring with a "ching." The fingers cymbals often follow the rhythms of the darabouka (dah-rah-boo-kah), a goblet-shaped drum. The rhythm shown below has a two drum sounds, a low tone "dum" and a high tone "tak." The säjät will also have two different sounds "chung" for low and "ching" for high.

**The Säjät – Egyptian Finger Cymbals**

**Säjät Spoons**

**Plastic Tray Darabouka**

**Directions.** Use some substitutes for the säjät like a small and large spoon struck with pencils. For the drum sounds use a plastic take-out tray that has a low and high sound. If you do not have a plastic tray, and if you get permission, you could use two books of different thicknesses for the drum sounds.

**Play and Compose Säjät Rhythms.** Count, say and play the Egyptian rhythms below to warm-up. After playing them, compose some of your own using the empty boxes on the next page. An "R" stands for right hand hits or low sounds, and an "L" for the left hand hits or high sounds. Leave a box empty if you want a rest or no sound for a count. Listen to examples of the säjät rhythms on the Roots of Rhythm Companion CD.

**Wahed wa nusf** (wah-head wah noosf)

<table>
<thead>
<tr>
<th>Count</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Säjät</td>
<td>R</td>
<td>L</td>
<td>L</td>
<td>R</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Darabouka</td>
<td>Dum</td>
<td>Tak</td>
<td>Tak</td>
<td>Dum</td>
<td>Tak</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Sājāt Rhythms

<table>
<thead>
<tr>
<th>Title</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. _______________</td>
<td>1 2 3 4 5 6 7 8</td>
</tr>
<tr>
<td><strong>Sājāt</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Darabouka</strong></td>
<td></td>
</tr>
</tbody>
</table>

2. _______________ | 1 2 3 4 5 6 7 8 |
| **Sājāt** |       |
| **Darabouka** |       |

3. _______________ | 1 2 3 4 5 6 7 8 |
| **Sājāt** |       |
| **Darabouka** |       |

4. _______________ | 1 2 3 4 5 6 7 8 |
| **Sājāt** |       |
| **Darabouka** |       |

5. _______________ | 1 2 3 4 5 6 7 8 |
| **Sājāt** |       |
| **Darabouka** |       |
**Roots of Rhythm: Volume I — Companion CD**

Notes for Musical Examples for Listen and Play Along

*Please note: The CD Notes should be used to support the Listen & Play Along section in the related chapters of the Roots of Rhythm Guide. Notation for recorded music on most of the play-along cd tracks can be found in the Resources section of the related chapters and can be read by students as they listen to and play along with the music.*

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Music and Description</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Adufe</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Listen</strong>:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Religious Adufe music from Monsanto, Portugal</td>
<td>“Divina Santa Cruz (Devine Saint Cruz)” in four counts, is an important song of the <em>Festa do Castelo</em>, to which the text refers. It is sung during ritual moments during a procession to the castle in Monsanto, or Castelo Branco. A sample of the opening words translates, “Oh, Devine Saint Cruz, and I am going there, my soul is already there, my heart is arriving...” (from a CD titled <em>Musical Traditions of Portugal</em> by the International Institute for Traditional Music on Smithsonian Folkways 40435, track #7).</td>
<td>1:33</td>
</tr>
<tr>
<td>2. Social Adufe music from Monsanto, Portugal</td>
<td>“Arvoredo,” in three counts, has a text that refers to a sentimental relationship (from Smithsonian Folkways 40435, track #10).</td>
<td>1:26</td>
</tr>
<tr>
<td><strong>Play Along</strong>:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Ritmo passo - four counts with the 16” drum</td>
<td></td>
<td>1:12</td>
</tr>
<tr>
<td>Ritmo passo - four counts with the 14” drum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ritmo passo - four counts with the 12” drum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Ritmo passo - four counts with ensemble</td>
<td></td>
<td>0:12</td>
</tr>
<tr>
<td>5. Ritmo passo - eight counts with the 16” drum</td>
<td></td>
<td>1:09</td>
</tr>
<tr>
<td>Ritmo passo - eight counts with the 14” drum</td>
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<td></td>
</tr>
<tr>
<td>Ritmo passo - eight counts with the 12” drum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ritmo passo - eight counts with ensemble</td>
<td></td>
<td>0:12</td>
</tr>
<tr>
<td>7. Ritmo roda - three counts with the 16” drum</td>
<td></td>
<td>0:52</td>
</tr>
<tr>
<td>Ritmo roda - three counts with the 14” drum</td>
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<td></td>
</tr>
<tr>
<td>Ritmo roda - three counts with the 12” drum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Ritmo roda - three counts with ensemble</td>
<td></td>
<td>0:09</td>
</tr>
<tr>
<td>9. Ritmo roda - six counts with the 16” drum</td>
<td></td>
<td>0:53</td>
</tr>
<tr>
<td>Ritmo roda - six counts with the 14” drum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ritmo roda - six counts with the 12” drum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Ritmo roda - six counts with ensemble</td>
<td></td>
<td>0:10</td>
</tr>
</tbody>
</table>

**Adufe Total Time**  7:48

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1 All musical examples in the “Listen” section are used with permission from the issuing authority.
2 All “Play Along” examples were recorded by Dr. Craig Woodson with Tommy Wiggins, recording engineer.
2. Bongos

Listen:
11. Rumba *guaguanco* ensemble with clave rhythm from Cuba
   “Las Leyendas de Grecia (The Legend of Greece)” is a familiar type of rumba
danced by a flirtatious couple that includes interaction and competition.
The lead singer punctuates the *quinto* drum’s rhythms. A translation of the
lyrics begins, “Come wise ones, and poets. Come here everyone. I’m going to
talk to you seriously about history and concrete things. Everyone talks of
history and of the Gods, without really knowing the origin of how they were
formed. The legend of Greece and of her divine gods…” (from a CD titled *Cuba
in Washington* on Smithsonian Folkways LC 9628, track #2)………………….. 1:33
12. Bongos playing *martillo* rhythm in the *son* rhythm of a Cuban ensemble
   “Yo Canto en el Llano (I Sing on the Plains)” shows the close relationship
between the *son* and rumba rhythms through the interlocking bongo and bell
rhythms. The *son* is a rhythm that connects other rhythms together like the
*martillo* and rumba. A translation of the lyrics begins, “Over the hill I met a
pretty woman from Guantánamo. Because of her bewitching look I got
involved right there…” (from Smithsonian Folkways LC 9628, track #9)…………..2:03

Play Along:
13. Rumba *guaguanco* - clave rhythm……………………………………………… 0:32
14. Rumba *guaguanco* - palitos rhythm…………………………………………… 0:25
15. Rumba *guaguanco* - guiro rhythm……………………………………………… 0:26
16. Rumba *guaguanco* - bongos rhythm…………………………………………… 0:26
17. Rumba *guaguanco* - *quinto* rhythm………………………………………….. 0:25
18. Rumba *guaguanco* - conga rhythm…………………………………………….. 0:26
19. Rumba *guaguanco* - tumba rhythm…………………………………………….. 0:26
20. Rumba *guaguanco* - ensemble…………………………………………………… 0:18
21. Bongos *martillo* - basic rhythm………………………………………………….. 0:28
22. Bongos *martillo* - solo variation #1……………………………………………… 0:28
23. Bongos *martillo* - solo variation #2……………………………………………… 0:25
24. Bongos *martillo* - solo variation #3……………………………………………… 0:28

Bongos Total Time   8:48

3. Buhai

Listen:
25. *Buhai* ox sounds from Tartarusi, Romania
   “Plugusor” with recitation, bell (imitating the bell around an ox’s neck), flute,
bass drum, and *buhai* during the Christmas and New Year’s Festival (from field
recordings in Romania by Ann Briegeleb Schuursma 1971-72, located at
Ethnomusicology Archive, University of California, Los Angeles)…………………2:01
26. *Buhai* ox sounds from Tartarusi, Romania
   “Buhai alone” (from field recordings by Ann Briegeleb Schuursma 1971-72)…….0:40
27. *Buhai* with calls, shouts, and oxen bell and whip sounds from Popesti, Romania
   “Plugusor” (from field recordings by Ann Briegeleb Schuursma 1971-72)…………1:12
Play Along:
28. Buhai - notation of ox sounds (playing a homemade buhai) .......................... 0:50

  Buhai Total Time  4:43

4. Djembé

Listen:
29. Djembé ensemble from Guinean tradition
   “Aconcon” (from a CD titled Djimbe [alternate spelling] - Leon Mobley on
   Djimbe Records DJ-005, track #6)......................................................... 1:33
30. Djembé ensemble from Guinean tradition
   “Doundounbah” [alternate spelling] (from Djimbe Records DJ-005, track #5)..... 1:33

Play Along:
31. Djembé 1 - drum call.................................................................................. 0:31
32. Aconcon - djembé 1.................................................................................... 0:21
33. Aconcon - djembé 2.................................................................................... 0:26
34. Aconcon - bell ........................................................................................... 0:25
35. Aconcon - bass .......................................................................................... 0:25
36. Aconcon - ensemble.................................................................................... 0:19
37. Doundoumba - djembé 1.............................................................................. 0:25
38. Doundoumba - djembé 2.............................................................................. 0:26
39. Doundoumba - bell..................................................................................... 0:28
40. Doundoumba - bass..................................................................................... 0:28
41. Doundoumba - ensemble.......................................................................... 0:21

  Djembé Total Time  7:13

5. Dondo

Listen:
42. Dondo in drumming from Ghana, West Africa
   “Adowa mpre” is a light form of Adowa music, which is a type of popular band
   that was especially created for funerals. The donno (plural of dondo) are the first
   drums heard on the track after the adawia bell begins. The song translates,
   “Death is invading my home, I cannot go to sleep. Wherever I go, I am sure to
   meet death. It is invading my home, I cannot go to sleep” (from a CD titled Music
   of the Ashanti of Ghana on Smithsonian Folkways FE 4240, track #3)............. 3:02

Play Along:
43. Atumpan drum (or dondo) call in speech rhythm........................................... 0:25
44. Adowa atene - adawia............................................................................... 0:28
45. Adowa atene - apentemma........................................................................... 0:28
46. Adowa atene - petia.................................................................................... 0:21
47. Adowa atene - dondo #1.............................................................................. 2:08
   Adowa atene - dondo #2
   Adowa atene - dondo #3
   Adowa atene - dondo #4
   Adowa atene - dondo #5
48. Adowa atene - atumpan…………………………………………………………0:28
49. Adowa - ensemble…………………………………………………………0:23

Dondo Total Time 7:43

6. Kakko

Listen:
50. Gagaku ensemble from Japan
    “Jo (Prelude)” is a composition based on the piece Goshôraku. This opening
    part of tōgaku music is in free rhythm with eight long cycles separated by
    strong taiko drum beats and clear kakko hits (from a CD titled Reigakusha
    Sukeyasu Shiba on Celestial Harmonies LC 7869, track #2)……………………..3:11

Play Along:
51. Free rhythms - sei, one hit with space…………………………………………0:23
52. Free rhythms - mororai, fast, steady roll ..............................................0:30
53. Free rhythms - katarai, acceleration or bouncing ball rhythm………………0:50
54. Measured rhythms - yatra-byoshi, shôko rhythm…………………………0:36
55. Measured rhythms - yatra-byoshi, kakko rhythm…………………………0:34
56. Measured rhythms - yatra-byoshi, taiko rhythm…………………………0:30
57. Measured rhythms - yatra-byoshi of tōgaku ensemble……………………0:38

Kakko Total Time 7:12

7. Lakota Drum

Listen:
58. Regular beat performed by six singers from the Northern Plains Indians
    “Grass Dance Theme Song,” or “Omaha,” is danced primarily for enjoyment. It
    is sung with high vocal tension, has the form AA’ BCB’ C’ and ends with five
    hard beats. This was recorded in 1975 by the Los Angeles Northern Singers (from
    a CD titled Powwow Songs—Music of the Plains Indians, produced by Charlotte
    Heth for the Musical Heritage Society, Inc. on ARC Music 5166949, track #6)…..1:33
59. Heartbeat rhythm performed by thirteen singers from the Southern Plains
    “Round Dance” is a song that gives everyone, even visitors, a chance to
    participate. The group’s enthusiasm generates spirited shouts and enjoyment.
    This was recorded in 1975 at the sixth annual Kíhekah Steh Powwow, Skiatook,
    in Oklahoma (from ARC Music 5166949, track #4)…………………………..1:33

Play Along:
60. Regular beat……………………………………………………………………0:39
61. Honor beat/ parade beat…………………………………………………………0:38
62. Two beat/ round dance…………………………………………………………0:34
63. Combination rolling beat and fast regular beat……………………………0:39
64. Lakota drum - lead drummer’s signal………………………………………0:19

Lakota Drum Total Time 5:55
8. Naqqāra

Listen:
65. **Mehter**, military music from Istanbul, Turkey
   “Mehter” is military music that combines Turkish classical and folk music. In the 1700s this music traveled north as far as Vienna and influenced European composers like Mozart and Beethoven. This is in the slow eight count *chiftetelli* rhythm (from a CD titled *Songs and Dances of Turkey* on Smithsonian Folkways FW08801, track #19)………………………………………………….… 2:09

66. **Karsilama**, dance music from İzmir, Turkey
   “Zeybek” is a nine count rhythm played by clarinet and *davul* and typical of the Agean region of Turkey. In this form, dancers imitate the eagle, spreading their arms in wide gestures (from Smithsonian Folkways FW08801, track #3)………… 1:03

Play Along:
67. Ayub - *naqqāra* rhythm……………………………………………..…………… 0:39
68. Ayub - *davul* rhythm ................................................................. 0:33
69. Ayub - *zils* rhythm...................................................................... 0:33
70. Ayub - *köş* rhythm....................................................................... 0:33
71. Ayub - ensemble ................................................................................ 0:23
72. Karsilama - *naqqāra* rhythm.......................................................... 0:34
73. Karsilama - *davul* rhythm............................................................... 0:29
74. Karsilama - *zils* rhythm................................................................. 0:29
75. Karsilama - *köş* rhythm................................................................. 0:29
76. Karsilama - ensemble ...................................................................... 0:26

*Naqqāra Total Time 8:20*

9. Ranāt ēk

Listen:
77. **Ranāt ēk** solo music from Thailand
   “*Phaya sok* (The Sorrowful King)” played by Prof. Prayong Ramawong at Natasin Roi-et, High School for the Arts in Roi-et, Thailand (from field recordings by Dr. Terry Miller 1989, Kent State University, Kent, Ohio)………………..1:29

78. **Pī-Phat** ensemble music from Thailand
   “*Sāthukān* (Greeting)” played by students (without the *pī nai*) of Natasin Roi-et (from field recordings by Dr. Terry Miller 1989)…………………………………….1:32

Play Along:
79. Sāthukān rhythms - *pī nai*............................................................. 0:45
80. Sāthukān rhythms - ranāt ēk.......................................................... 0:41
81. Sāthukān rhythms - *khōng wong yai*.......................................... 0:41
82. Sāthukān rhythms - *ching*........................................................... 0:41
83. Sāthukān rhythms - *taphōn*....................................................... 0:41
84. Sāthukān rhythms - *klōng that*.................................................. 0:41
85. Sāthukān - ensemble..................................................................... 0:26

*Ranāt ēk Total Time 7:37*
10. Sājāt

Listen:
86. Dance song from Thebes, Egypt
   “Baheya” is sung by a male singer known locally for his impassioned high vocal style. The rhythm begins as wahed wa nusf and ends with saaidi mashi. The sājāt are played by the dancer (from a CD titled Music of the Fellahin recorded by Aisha Ali in 1973 on Discs Araf DA 702, track #3) ........................ 0:59
87. Ghawazee dance song from the Nile, Egypt
   “Banat Mazin Song” is performed by the Maazin sisters who also play sājāt. It begins with saaidi mashi and ends with wahed wa nusf rhythms (from Discs Araf DA 702, track #4) .................................................. 1:04
88. Ghawazee dance piece from the Nile, Egypt
   “Ghawazee Dance” is played by the Ra’is Qinnawi mizmar band. This is a medley of songs in different tempos but all in the rhythm wahed wa nusf. The sājāt are played by the Banat Maazin (from Discs Araf DA 702, track #8) ....... 1:04

Play Along:
89. Wahed wa nusf .......................................................... 0:35
90. Maqsoum ................................................................. 0:35
91. Masmoudi #1 ......................................................... 0:40
92. Zaffah ................................................................. 0:36
93. Saaidi ................................................................. 0:32
94. Fallahi ................................................................. 0:31
95. Curcurna ............................................................ 0:33
96. Kas rhythms - player #1 ................................. 2:14
    Kas rhythms - player #2
    Kas rhythms - player #3 (playing classroom/student cymbals)
    Kas rhythms - player #4 (playing pie tins)
97. Kas - ensemble ................................................... 0:25

Sājāt Total Time  9:48

Total Time  75:07
**Contact information for musical examples:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aisha Ali</strong></td>
<td>Discs Araf, 3270 Kelton Ave., Los Angeles, CA 90034</td>
</tr>
<tr>
<td><strong>ARC Music</strong></td>
<td>Website: <a href="http://www.arcmusic.co.uk">www.arcmusic.co.uk</a></td>
</tr>
<tr>
<td><strong>Celestial Harmonies</strong></td>
<td>Email: <a href="mailto:celestial@harmonies.com">celestial@harmonies.com</a> Website: <a href="http://www.harmonies.com">www.harmonies.com</a></td>
</tr>
<tr>
<td><strong>Dr. Terry Miller</strong></td>
<td>Kent State University Kent, Ohio 44242</td>
</tr>
<tr>
<td><strong>Leon Mobley</strong></td>
<td>Office: 818-363-5958 Email: <a href="mailto:LeonMobley@aol.com">LeonMobley@aol.com</a> Website: wwwleonmobley.com</td>
</tr>
<tr>
<td><strong>Smithsonian Folkways</strong></td>
<td>Center for Folklife Programs and Cultural Studies, 955 L’Enfant Plaza, Suite 2600, Smithsonian Institution Washington DC 20560</td>
</tr>
<tr>
<td><strong>UCLA Ethnomusicology Archive</strong></td>
<td>Ethnomusicology Archive P.O. Box 951616 University of California 310-825-1695</td>
</tr>
<tr>
<td><strong>Tommy Wiggins</strong></td>
<td><a href="mailto:thestudioguy@adelphia.net">thestudioguy@adelphia.net</a>, 440-533-5333</td>
</tr>
</tbody>
</table>
References

Introduction

The research for *Roots of Rhythm: Volume I* was based on references that included books, articles, websites, DVDs, CDs, and personal interviews. This list is not intended to be a comprehensive bibliography, but instead a practical mix of sources. The project was also based, in part, on the experience of the author in the field of world percussion for over forty years. Some works were out of print and in the author’s library, while other references were common in the fifth and sixth grade school library. Websites were used when considered authoritative or otherwise important for the project. Those websites with photographs, maps, art, musical notation, and/or sound samples are noted at the end of the address, otherwise the address only has descriptive information. For some instruments, no commercial recordings were available but sounds of those instruments can be heard either as sound samples online or in some cases, on CDs or DVDs available in stores, online and/or purchased directly from individual performer(s) or groups. There were several interviews and contacts with experts in the field that were extremely helpful and I wish to extend my gratitude for their kind assistance.

Books and Articles


**Websites by Instrument**

*Adufe*:
http://www.kaminari-sama.com/k-raijin_-(instrumentencyclopedia-P).htm (photograph)
http://www.mariajoao.oninet.pt/collaboradores/adufeiras.html (photographs)
http://www.novaguarda.pt/090102/g_reg1.htm (photograph)
http://www.pedexumbo.com/tocadores/instrumentos/adufe/ (photographs)
http://www.wordiq.com/definition/Music_of_Portugal
http://216.239.39.104/translate_c?&u=http://www.pedexumbo.com/tocadores/instrumentos/adufe/index.htm (photograph used in text, sound samples)

**Bongos:**
http://www.amazon.com/exec/obidos/tg/stores/artist/glance/-/49232/ref=m_art_dp/104-7543100-2759929 (sound samples)
http://www.cdconnection.com/bin/nph-search?artist=mongo+santamaria&source=googmongo santamaria (sound samples)
http://www.magictails.com/abydos/mid-east/hand-drums.html (photographs)
http://www.rhythmweb.com/bongo/index.html (photograph used in text)
http://www.rhythmweb.com/bongo/play.htm

**Buhai:**
http://home.att.net/~bandura.ca/VMfolkBook/percussive.html (photograph used in text)
http://www.folkromania.com/articles.php?ai=50&st=0&filter=1
http://www.geocities.com/petrud98/localcustoms/wintercustomsintroduction.html
http://www.hobgoblin-usa.com/info/glossary.htm

Country, map, flag information:
http://www.cia.gov/cia/publications/factboook/geos/th.html (used in the text)

**Djembe:**
http://www.alpheus.hep.sci.osaka-u.ac.jp/~karim/africa/percu/intro.html (photographs)
http://www.baymoon.com/~drumcircle/music_rhythm_catalog2.html
http://www.magictails.com/abydos/mid-east/hand-drums.html (photographs)
http://www.members.fortunecity.com/djemmer/rhythmcatalog_txt.html

**Dondo:**
http://www.si.umich.edu/chico/instrument/pages/tlkdrum_gnrl.html (photographs, sound samples)
http://www.tillers.gq.nu/photo.html (photographs)

**Kakko:**
http://www.hogaku.it/exmus/01/0001.html
http://www.ksanti.net/free-reed/images/history/asia/togaku.jpg (musical notes)
http://www.nationalgeographic.com/ngm/0101/online_extra.html (photograph)
http://www.taiko.com/resource/history/glossary.html
http://www.tengaku.konko.jp/english/einstrument.htm
http://www.uwgb.edu/ogradyt/world/japan.htm
Lakota Drum:
http://www.drumpop.com/structure.html
http://www.fema.gov/regions/viii/tribal/ogalabg.htm
http://www.geocities.com/RainForest/Canopy/1835/wheel.html (art)
http://www.hanksville.org/daniel/lakota/Lakota.html
http://www.infoplease.com/ipa/A0778676.html (map)
http://www.magic tails.com/abydos/mid-east/hand-drums.html (photographs)
http://www.press.uiillinois.edu/epub/books/browner/ch4.html

Naqqāra:
http://www.canadianstandard.ca/wtis/hist.html
http://www.ccmw.com/conferences/2003/Facets%20of%20Islamic%20Musical%20Tradition.htm
http://www.cleo.ucsm.ac.uk/content/music/world_music/uighur_music/musical_instruments.htm
(http sample)
http://www.drumdojo.com/world
http://www.drumjourney.com/articles/xpeyman2.htm
http://www.magic tails.com/abydos/mid-east/hand-drums.html (photographs)
http://www.ottomansouvenir.com/Music/Mehter_Army_Band.htm (photographs, sound sample)
http://www.raqs.co.nz/me/instruments.html

Ranāī ēk:
http://pioneer.chula.ac.th/~sbussako/janec.htm (photographs, sound sample)
http://www.pas.org/Museum/tour/0696.cfm (photographs)
http://www.thailand.com/travel/arts/art_music_classic.htm

Sājār:
http://www.aldokkan.com/music/cymbals.htm (photograph)
http://www.amazon.com/exec/o bidos/ASIN/B000001IMH/qid=1096083547/sr=ka-1/ref=pd_ka_1/104-7543100-2759929 (sound sample)
http://www.en.wikipedia.org/wiki/Cymbal_alloys
http://www.khatif.com/rhy/print.html
http://www.shira.net/zills-98.htm

CDs, DVDs, and Videos by Instrument

Adufe:
Non-commercial CDs are available by contacting performing groups such as Adufe and Adufeiras de Monsanto. Sound samples are available on line (see Websites).

Bongos:
Tambour de la Terre 1 Afrique – Amerique. CD on Auvidis, 1992.
**Buhai**
Non-commercial recordings that include the *buhai* are available at Ethnomusicology Archives at the University of California, Los Angeles.

**Djembe**

**Dondo**

**Kakko**
Gagaku - Kyoto Imperial Court Music Orchestra. CD on Lyrichord, 7126.

**Lakota Drum**
Non-commercial recordings that include the *buhai* are available at Ethnomusicology Archives at the University of California, Los Angeles.

**Naqqara**
Battacharya, Deben. *Ecstatic Circle: Turkey*. DVD.
Sound samples of this CD are available online.
*Songs and Dances of Turkey*. CD on Smithsonian Folkways FW08801, 1955.

**Ranat ék**
Non-commercial recordings that include the *ranat ék* are available at The Center for World Musics, Kent State University, Kent, Ohio.

**Sajår**
Interviews and Contacts

Awe, Francis. Dundun drummer and teacher from Nigeria. Los Angeles, California.
Ergun, Cenk. Turkish musician and composer. San Francisco, California.
Garfias, Dr. Robert. Scholar and performer on music of gāgāku. Irvine, California.
Kakigahara, Yasuhiro. Tokyo Concerts, Inc., Tokyo, Japan.
Kaspar, Souhail. Egyptian musician and teacher. Los Angeles, California.
Locke, Kevin. Lakota musician and hoop dancer. Cleveland, Ohio.
Manns, Olugbala. Djembe drummer and teacher. Cleveland, Ohio.
Miller, Dr. Terry. Scholar on and performer of Thailand’s music. Kent State University, Ohio.
Mobley, Leon. Djembe drummer and teacher. Los Angeles, California.
Racy, Dr. Ali Jihad. Egyptian scholar and musician. University of California at Los Angeles, California.
Schuursma, Ann Briegleb. Scholar on the music of Romania. Los Angeles, California.
Notes
Each of the five types of ROR Funsheets have one or more descriptive paragraphs based on chapters in the teacher's guide. Each two-page Funsheet might include maps, photographs, or diagrams. They can be used as stand-alone projects or used after a review of the chapter.

There are five types of Funsheets as follows:

1. Decorate Your Instrument – These are short art projects that students complete with pencils and markers (adufe and kakko).
2. Make and Play Your Instrument – Using simple materials the student makes a simple musical instrument and then compose rhythms to perform (bongos and sājāt).
3. Find Facts and Opinions – After reading the paragraph, students determine which statements are based on facts or opinions (buhai and naqqāra).
4. Fill It In – Students fill in statements and complete a crossword puzzle based on the material provided (djembé and ranāt ēk).
5. Compare and Contrast – Using a Venn diagram, student compare two instruments as to similarities and differences (dondo and Lakota Drum).

Chapter 1. The Adufe
Ideas for decorating the Adu
- Ribbons on the frame
- Flag of Portugal
- Map of Portugal
- The name Portugal
- The name “adufe”
- The name "adufeiras"
- Women playing the adufe
- A drawing of the adufe
- Musical notes

Chapter 2. The Bongos
Bongo Rhythms:
For Example,

1. Small drum
   | R | L | L | R | L | L |
   Large drum |   | R | R |

2. Small drum
   | L | R | L | R | L | L |
   Large drum | R | R |

3. Small drum
   | R | L |   | R | L | L |
   Large drum | R | L | R |
Chapter 3. The *Buhaï*

1. Opinion
2. Fact
3. Fact
4. Opinion
5. Fact
6. Opinion
7. Fact
8. Opinion
9. Fact
10. Opinion

Chapter 4. The *Djembé*

Fill in:
1. Metal sheets with small rings attached adds a buzzing sound
2. To get the drummers started in a performance
3. Wood, metal sheets, metal rings, cloth, animal skin, and nylon cords.

Crossword:
1. Twelve
2. Hands
3. *djembé*
4. Dancers
5. Strap
6. Legs
7. *aconcon*
8. Pitches
9. Guinea
10. Signal

Chapter 5. The *Dondo*

*Dondo* vs. Lakota Drum

*Dondo* differences
1. Two drumheads
2. Hourglass shape
3. Pitch can vary
4. Held under arm
5. North American
6. Talking rhythm
7. Wood beater
8. Tropical area

Similarities
1. Held for playing
2. Hit with one stick
3. Accompanies singing
4. Accompanies dancing
5. Played for social events
6. For official ceremonies
7. Flags have star shape
8. Struggled against British

Lakota Drum differences
1. One drumhead
2. Frame shape
3. Pitch does not vary
4. Held in hand
5. West African
6. Heartbeat rhythm
7. Padded beater
8. Hot and cold climate
Chapter 6. The *Kakko*
Ideas for decorating the *Kakko*:

- Rose: Seated musician with pointed hat
- Bouncing ball: The word "Tōgaku"
- Small gong: The word "Kakko"
- Big *taiko* drum: Gold leaf vine

To me, this decoration is a symbol of, ___ an ancient drum, leader of a royal ensemble in Japan.

Chapter 7. The *Lakota Drum*

Lakota Drum vs. *Tabla*

<table>
<thead>
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<th>Lakota Drum differences</th>
<th>Similarities</th>
<th><em>Tabla</em> differences</th>
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<tbody>
<tr>
<td>1. One drum</td>
<td>1. Skin drumheads</td>
<td>1. Two drums</td>
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<tr>
<td>2. Frame drum</td>
<td>2. Change sound with fingers</td>
<td>2. Kettledrums</td>
</tr>
<tr>
<td>3. Held with hand</td>
<td>3. Accompany singing</td>
<td>3. Positioned in cushion on floor</td>
</tr>
<tr>
<td>5. Played with beater</td>
<td>5. Climate can be very hot</td>
<td>5. Played with fingers and palms</td>
</tr>
<tr>
<td>6. Can add a buzz sound</td>
<td>6. Climate can be very cold</td>
<td>6. Cannot add a buzz sound</td>
</tr>
<tr>
<td>7. Small geographic area</td>
<td>7. British ruled each area</td>
<td>7. Large geographic area</td>
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<tr>
<td>8. From North America</td>
<td>8. Both flags have circles</td>
<td>8. From South Asia</td>
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Chapter 8. The *Naqqāra*

1. Opinion
2. Fact
3. Fact
4. Fact
5. Fact
6. Opinion
7. Fact
8. Fact
9. Opinion
10. Fact

Chapter 9. The *Ranāt ěk*

1. With a roll or fast alternating hits.
2. Central
3. The *ranāt ěk* is a xylophone with 22 bars that is play with two mallets. It sits on a curved stand with decorated ends that are pointed up. The curved stand sits on a smaller stand.

Crossword:

1. roll
2. percussion
3. floor
4. Thailand
5. conductor
6. mallets
7. dancers
8. Across - blowing
9. Down - bars
10. eight

Chapter 10. The *Sājāt*

For Example,

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<th><em>Sājāt</em></th>
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# Roots of Rhythm Workshop Evaluation Form

Please take a few moments to help us improve the Roots of Rhythm program by filling out and returning this evaluation form.

<table>
<thead>
<tr>
<th>name</th>
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<tr>
<td>grade</td>
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<td>state</td>
<td>zip</td>
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<td>phone/extension</td>
<td>email</td>
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### What sections of the *Roots of Rhythm* did you use?

- [ ] Introduction
- [ ] Lessons
- [ ] CD
- [ ] CD Notes
- [ ] References
- [ ] Notation Paper
- [ ] Student Funsheets

### Which lesson(s) did you use?

- [ ] Adufe (Portugal)
- [ ] Bongo (Cuba)
- [ ] Lakota Drum (Americas)
- [ ] Djembé (Guinea)
- [ ] Dondo (Ghana)
- [ ] Kakko (Japan)
- [ ] Naqqāra (Turkey)
- [ ] Pandeiro (Brazil)
- [ ] Ranāt ēk (Thailand)
- [ ] Sājāt (Egypt)
- [ ] Snare Drum (Switzerland)
- [ ] Steel Drum (Trinidad & Tobago)
- [ ] Turntable (U.S.)

### Did you use the “Listen and Play Along” sections of the lessons and the related musical examples?

- [ ] Listen and Play Along
- [ ] Companion CD
- [ ] Online Musical Examples

### Did you reproduce the “Resources” section of the lessons as student handouts?

- [ ] yes
- [ ] no

### Did you reproduce the “Student Activity” pages as student handouts?

- [ ] yes
- [ ] no

### Did you follow the instructions in the lessons to make your own instruments?

- [ ] yes
- [ ] no

### Did you use or purchase commercially available percussion instruments?

- [ ] yes
- [ ] no

### Was the *Roots of Rhythm* material easy to use?

- [ ] yes
- [ ] no

### Was the content appropriate for 5th and 6th grades?

- [ ] yes
- [ ] no

### Was the content adaptable for other grade levels?

- [ ] yes
- [ ] no

If yes, please explain: _______________________________________________________

### Did you use the Guide to integrate arts education into other subjects?

- [ ] yes
- [ ] no

If yes, please explain: _______________________________________________________  

(continued...)
Do you feel that this program has increased your students’ interest in music?  ○ yes  ○ no
Do you feel that this program has increased your students’ interest in drumming?  ○ yes  ○ no
Would you recommend this resource to other teachers?  ○ yes  ○ no
Would you be interested in attending a Roots of Rhythm workshop?  ○ yes  ○ no
What is the name of your local music dealer?  ____________________________________________

How could the Roots of Rhythm program and resource materials be expanded or improved?
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

Please feel free to provide any additional comments you may have.
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

please return this form to:
Dr. Craig Woodson
c/o The Percussion Marketing Council
PO Box 33252, Cleveland, OH 44133
phone: 440-725-8767 or email: kbdustman@aol.com

Roots of Rhythm and Roots of Rhythm: Extensions are produced and presented by:
The Percussion Marketing Council (PMC), The International House of Blues Foundation (IHOBF)
and the International Music Products Association (NAMM)

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# Roots of Rhythm

## TUBS Notation for Six and Eight Counts and Free Rhythm

### Six Counts

**One Part**

1 2 3 4 5 6 1 2 3 4 5 6 1 2 3 4 5 6

**Two Parts**

1 2 3 4 5 6 1 2 3 4 5 6 1 2 3 4 5 6

**Three Parts**

1 2 3 4 5 6 1 2 3 4 5 6 1 2 3 4 5 6

**Four Parts**

1 2 3 4 5 6 1 2 3 4 5 6 1 2 3 4 5 6

### Eight Counts

**One Part**

1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8

**Two Parts**

1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8

**Three Parts**

1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8

**Four Parts**

1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8

Free Rhythm

_____________________________________________________________________________