

Roots of Rhythm: Volumes I & II World Drumming for All Ages

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 itali and some diacritical marks like a macron (\bar{a}) are used when available.



Chart for Roots of Rhythm Instruments & Cultures

M	Type Name	Africa	Asia	Europe	Americas	Middle East
I	Age					
M	Hourglass Modern	Ghana <i>Dondo</i>	Korea <i>Changgo</i>	NC	United States Talking drum RC	NC
M	Goblet Modern	Senegal <i>Djembé</i>	Cambodia <i>Sgar āraks</i>	Albania <i>Darabuke</i>	United States <i>Djembé</i> RC	Iran <i>Dombak</i>
I	Percussion Ancient	Mali <i>Balaphon</i>	Thailand <i>Ranāt ēk</i>	France Xylophone	Guatemala Marimba	NC
M	Barrel Ancient	Ghana <i>Atsimewu</i>	Japan <i>Kakko</i>	England Conga RC	Trinidad Conga RC	NC
M	Friction Ancient	Zaire <i>Kwita</i>	NC	Romania <i>Buhai</i>	Brazil <i>Cuica</i>	NC
I	Shaken Ancient	NC	Pakistan <i>Damaru</i>	Portugal <i>Adufe</i>	United States Ocean drum RC	Syria <i>Riqq</i>
M	Cylinder/Cone Modern	S. Africa <i>Isigubu</i>	Japan <i>Daibyoshi</i>	Bulgaria <i>Tupan</i>	Cuba Bongos	Iraq <i>Tabl</i>
M	Frame Modern	Nigeria <i>Sakara</i>	India <i>Kanjira</i>	Ireland <i>Bodhrán</i>	N. America Lakota drum	Bahrain <i>Tar</i>
I	Concussion Ancient	Morocco <i>Qarqab</i>	Bali <i>Ceng-ceng</i>	Estonia Cymbals RC	United States Hi-hats RC	Egypt <i>Sājāts</i>
M	Kettle sets Ancient	Chad <i>Naas</i>	India <i>Tabla</i>	Germany Timpani	United States Timpani RC	Turkey <i>Naqqāra</i>

The six RoR instruments in Volume II in alphabetical order are as follows:

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



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 *djembé* 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 *djembé* and bongos, but others are not like the *buhai* and *naqqāra*.

Rhythms: The rhythms represent signal communication (*djembé*) 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.



Rhythm	Example	Culture/ Country	Instrument, Description
Talking	Speech on drums	Africa/ Ghana	<i>Dondo</i> , an hourglass talking drum
Signal	Signal to play drums	Africa/ Guinea	<i>Djembé</i> , a goblet-shaped signal drum
Layered	1, 2, 4, 8 counts	Asia/ Thailand	<i>Ranāt ēk</i> , a xylophone conductor
Free	Bouncing ball	Asia/ Japan	<i>Kakko</i> , a rhythmic conductor
Religious	For spiritual songs	Europe/ Portugal	<i>Adufe</i> , a religious frame drum
Animal	Animal sounds	Europe/ Romania	<i>Buhai</i> , an animal friction drum
Human	Heartbeat	Americas/ S. Dakota	Lakota Drum, rhythm of the heart
Dance	3/2 clave beat	Americas/ Cuba	Bongos, a drum set for dancing
Polyrhythm	2 against 3 counts	M. East/ Egypt	<i>Sājāt</i> , ancient cymbals
Military	8 and 9 counts	M. East/ Turkey	<i>Naqqāra</i> , military kettledrums
Dance	Samba	Brazil	Pandeiro, frame drum with jingles
Military	Swiss Rudiments	Switzerland	Snare drum, cylinder with snares
Melodic	Calypso	Trinidad and Tobago	Steel drums, pitched metal
Additive	Tal Rupak	India	<i>Tabla</i> , kettledrums with a pitch
Friction	Scratch	U.S.A.	Turntables, electric friction sound
Meditation	Peace Building	Iraq	Frame drum with jingle modifier

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:

⌚ TUBS counting 1 2 3 4 5 6

R			L		
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- ⌚ 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

⌚ X = clap your hands or hit cymbals together

- ⌚ ll, rr, rl, lr = fast double hits
- ⌚ Graphic shapes = free or unmeasured rhythm (*buhai*, *kakko*, and Lakota Drum)
- ⌚ c, d, e, f, etc. = a piano's white notes

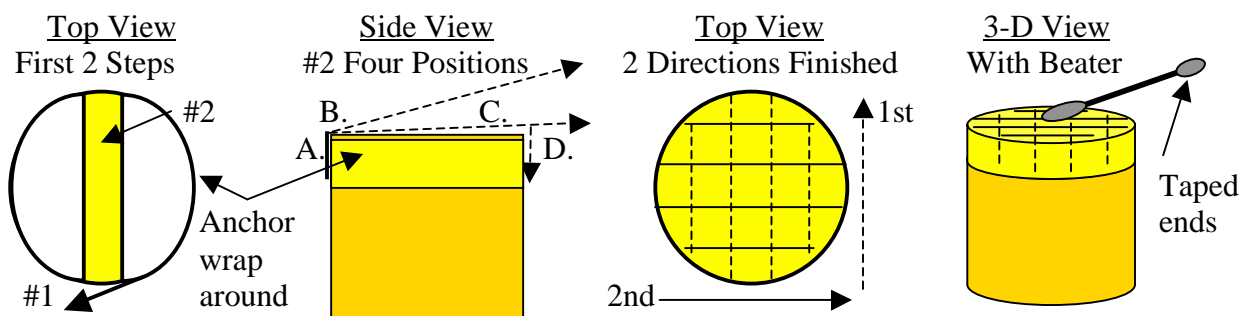
In most cases the authentic instruments will not be commonly available, but substitutes can be used. Students can use everyday items, like a phonebook or spoons, as percussion instruments. If there is a music teacher or program in your school, check to see if substitute musical instruments are available as follows:

1. guiro and maracas
2. bongos
3. congas or *djembe*
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.



NOTE. For instrument-making projects, some uncommon items including the square *Adufe* frames, the shallow Lakota Drum frames, and PVC tape in various colors are available for purchase. Contact Ethnomusic, Inc. at 440-725-8767 or email: woodsonphd@gmail.com for more information.

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.