

# HOP HOPKINS CENTER FOR THE ARTS

FAMILY STUDY GUIDE 2014 • 2015



fri  
APR 17  
2 pm

## *the* NILE PROJECT



# WELCOME TO THE HOP

A performance needs an audience, so be prepared to play your part!

## THEATER ETIQUETTE

When entering the Hopkins Center, show consideration for all those sharing the building by remaining quiet and respectful in common areas.

Be aware and use quiet voices. Remember that live theater differs greatly from watching television or movies or attending a sporting event. Live performers can hear and see you and are easily distracted by any talking or moving around in the audience. Even the smallest sounds can be heard throughout the theater, so it's best to be quiet so that everyone can enjoy the performance.

Applause is the best way to show your enthusiasm and appreciation!

Important things to remember: Backpacks, food, drink, and gum are not allowed in the theater. Please turn off all cell phones and note that recording the performance or taking any photos is strictly prohibited. Hats off! It is respectful to remove hats during your time in the theater.

## INFORMATION FOR FAMILIES

**Be prepared and arrive early.** You should arrive at the theater 20 to 30 minutes before the show. Allow for travel time, parking and trips to the restroom. You should be in your seat at least 15 minutes before the performance begins.

**Photo Policy.** The Hopkins Center may take photographs during the performance for use on our website or on promotional materials. If you or your family do not wish to be photographed, please see a Hop staff member.

**The Show Must Go On!** We do not cancel events due to inclement weather. Performances will only be canceled if the artist is unable to reach the theater. Ticket holders will be notified as soon as possible if a performance is cancelled. We do not issue refunds for weather-related cancellations.

This study guide was created for you by the Outreach & Arts Education team with support from The Nile Project. To download copies of this study guide, see additional resources for this event, or view past study guides, please visit: [www.hop.dartmouth.edu/outreach](http://www.hop.dartmouth.edu/outreach).

### ENJOY THE SHOW!

**Hopkins Center Outreach Department:**  
**Stephanie Pacheco**, Outreach Manager  
**Mary Gaetz**, Outreach Coordinator  
**Erin Smith**, Outreach Coordinator

The Hopkins Center Outreach & Arts Education department embodies the Hop's mission to "ignite and sustain a passion for the arts." It provides Dartmouth, the community and beyond rare personal contact with artists and a broad context for the performing arts. Unveiling the creative process of extraordinarily diverse artists, Outreach programs touch more than 14,000 lives each year.

## DID YOU KNOW?

- The Hopkins Center opened in 1962.
- The Hopkins Center was designed by Wallace Harrison, architect of Lincoln Center and the United Nations Building in New York City.
- Spaulding Auditorium houses one of the largest pipe organs in New Hampshire. Can you find it?

# ABOUT THE ARTISTS

The Nile Project is a collaborative group of musicians, educators and activists who work together to build awareness about and generate new ideas to address environmental challenges in the Nile River basin. It was founded in August 2011 by Egyptian **ethnomusicologist** Mina Girgis and Ethiopian-American singer Meklit Hadero, who both feel passionately about the power of music to make a difference in the Nile region.



The 437 million citizens of the 11 nations in the Nile River basin do not have many opportunities to connect with each other. Girgis and Hadero believe that these countries must work together to solve the environmental challenges facing the Nile River, such as food sustainability, climate change, water policy and pollution. The Nile Project brings together musicians from the Nile countries to make new songs and tour around the region and beyond, sharing the music and cultures of their river neighbors. Another strategy the Nile Project takes is education, working with universities to hold workshops that provide students with opportunities to learn more about the Nile River and develop ideas to create a more **sustainable** Nile Basin. The organization also offers a Nile Prize, which provides students a way to turn their inspiration and environmental knowledge into new and exciting sustainable solutions for the Nile **ecosystem**. In 2015 The Nile Project tours the United States for four months, bringing music and education programs to American universities and towns. The Project aims to inspire and educate citizens around the world to work together for environmental sustainability.

# ABOUT THE PERFORMANCE

The Nile Project performs original music that was composed collaboratively by all the participating artists. Each musician taught the others in the group the musical language and rhythms of his or her own traditional music, then the group composed and arranged new songs that weave together elements from each culture. Though some songs relate to nature or geography, the songs are *from* the river rather than *about* the river. Lyrics in more than ten different languages range from the deeply personal to the party **anthem**, exploring themes of identity, regional solidarity and intercultural relationships. A powerful percussion section drives the **collective**, which brings together traditional instruments of common musical ancestries and unites those that have never played together. The performance at the Hopkins Center will feature the following artists and instruments:



Mohamed Abo Zekry, *oud*, (Egypt)  
Alsarah, vocals, (Sudan/Brooklyn, NY)  
Michael Bazibu, *endongo*, *adungu*, *endingidi*,  
and percussion, (Uganda)  
Hany Bedair, *daff* and *riq*, (Egypt)  
Nader El Shaer, *ney* and *kawala*, (Egypt)  
Dina el Wedidi, vocals, (Egypt)  
Meklit Hadero, vocals, (US and Ethiopia)

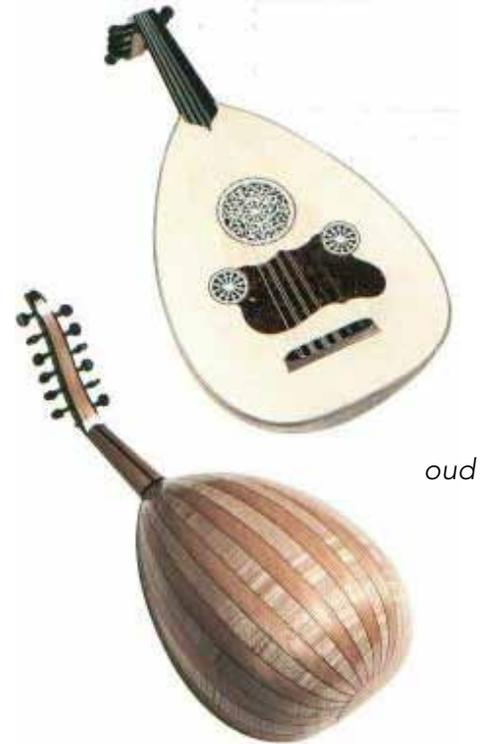
Jorga Mesfin, saxophone, (Ethiopia)  
Kasiva Mutua, percussion and vocals, (Kenya)  
Sophie Nzayisenga, *inanga*, (Rwanda)  
Dawit Seyoum, *krar* and bass *krar*, (Ethiopia)  
Steven Sogo, bass, *ikembe*, guitar and vocals,  
(Burundi)  
Selamnesh Zemene, vocals, (Ethiopia)

# ABOUT THE INSTRUMENTS

The plucked harp (lyre) and spike fiddle (bowed instrument resting on a spike) have been at the heart of the Nile's musical identity since ancient times. Today, modern versions of both instruments are found in every country within the Nile Basin. In **curating** the collective, co-producers Miles Jay and Mina Girgis highlighted the unique **timbres** of these instruments, while also surrounding them with the complementary sounds of harps, zithers, wind instruments and percussion from each musical tradition.

## LYRES

The *oud* is a stringed instrument with a pear shaped body found throughout the Middle East and North Africa, related to the European lute. The neck does not have frets, allowing musicians to play many **microtonal** notes. *Ouds* have between 5-7 pairs of strings, tuned differently from region to region, and are plucked with a long, thin pick.



*oud*



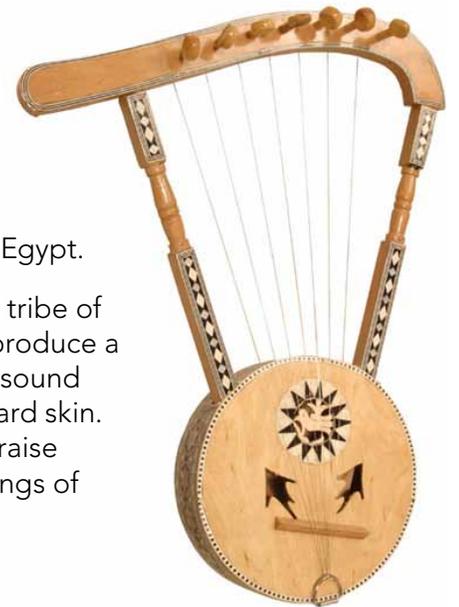
above, *krar*; below, *entongoli*



The *krar* is another variation of the lyre found in the Amhara region of Ethiopia. The *krar* has five or six strings and a bowl-shaped body.

The Egyptian *simsimiyya* is a lyre with 5-7 steel strings, found in a variety of sizes. Its musical ancestors are pictured in many Egyptian tomb paintings, illustrating musicians from antiquity entertaining the Pharaohs. The modern *simsimiyya*'s construction and strumming style comes from Port Said, Egypt.

The *entongoli* is a lyre from the Basoga tribe of Uganda. It has six to eight strings that produce a buzzing sound by vibrating against the sound board, which is traditionally made of lizard skin. The instrument is played by *griots*, or praise singers, either solo or to accompany songs of praise.



*simsimiyya*

### See and hear these instruments online!

**oud:** <http://egyptiancentermakan.wordpress.com/oud/>  
[http://www.youtube.com/watch?v=sWC3MNE\\_tUA](http://www.youtube.com/watch?v=sWC3MNE_tUA)

**krar:** <http://www.youtube.com/watch?v=IGFrPGSWi4E>

**simsimiyya:** <http://www.youtube.com/watch?v=A1d2vmAWqyw>

**entongoli:** <https://www.youtube.com/watch?v=ZlftvG1RxVM>

# ABOUT THE INSTRUMENTS (CONT.)

## STRINGED INSTRUMENTS

The Ugandan *endingidi* is 1-string bowed instrument, very similar and likely related to the *rababa* of Egypt. Its body is round and made of wood, and though similar in size to its relative spike fiddles, is often much deeper, giving the instrument a bassier, grittier **tone**.

The *umuduri* is a Ugandan instrument made of one string stretched across a bow. A gourd is attached to the bow, which the player holds against his or her body while striking the string with a wooden stick and a rattle. The string is separated into two sections of different lengths which produce two different notes.



above, Nile Project musician Steven Sogo with an umuduri;  
below, inanga

## HARPS

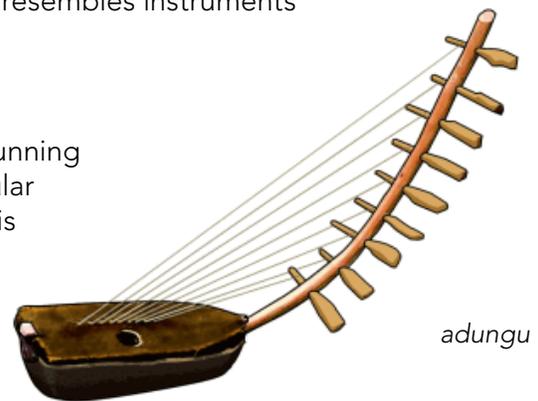
The Ugandan *adungu* is an arched harp with 7-15 strings, different from many of the other harps of the Nile Basin in that the strings come off the top at a 90 degree angle. While traditionally it came in a few sizes, in the last 80 years it has been greatly expanded and ranges from large bass versions all the way up to small high-pitched ones. The *adungu* is used by the Alur people of northwestern Uganda, and closely resembles instruments carved into ancient hieroglyphics in Egypt.

## ZITHERS

The Rwandan *inanga* has around 20 strings running lengthwise end to end along a long rectangular shallow wooden plate or trough. The *inanga* is played like a harp, with both hands, and usually has accompanying vocals. The strings of the *inanga* are made from natural fibers, and used to be made from animal gut. It was originally a court instrument that served specific functions for the *mwami*, or king.



*endingidi*



*adungu*



### See and hear these instruments online!

**endingidi:** <https://www.youtube.com/watch?v=AyOO1jsTtYc>

**umuduri:** <https://www.youtube.com/watch?v=VSHYamVybo0>

**adungu:** <http://www.youtube.com/watch?v=AVUbhQvfTug>

**inanga:** <http://music.africamuseum.be/instruments/english/burundi/inanga.html>

# ABOUT THE INSTRUMENTS (CONT.)

## WIND

The *ney* is a flute used throughout the Middle East in religious, classical and folk music. Egyptian *neys* are made of reed and have seven holes, one of which is played by the thumb in the back. The *kawala* is similar to the *ney* but has only six finger holes. It was originally used by shepherds and now is frequently heard at religious festivals and weddings. They are both played by placing the lips over the top of the instrument and blowing at an angle against the rim.



Neys come in several sizes; smaller instruments have a higher pitch

## PERCUSSION

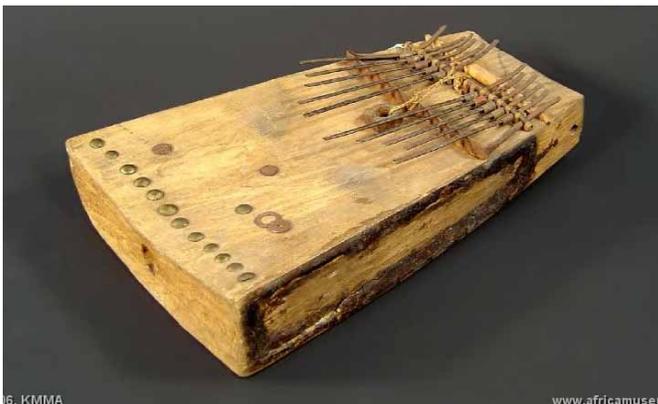
The *duff* and the *riq* are both Egyptian wooden frame drums covered on one side with an animal skin **membrane**. On the inside, small metal rings are attached to rattle and create sound. The *duff* is held with both hands and played with the fingers, and usually played by a singer as accompaniment. A *riq* is usually played without singing and might be shaken above the head and around the body.

The *amadinda* is from a family of Ugandan xylophones called "log" xylophones. Typically, the instrument is made by placing 12 wooden bars placed across two fresh banana tree trunks. Two or three different musicians, called the *omunazi*, *omwawuzi* and *omukoonezi*, sit on the two sides of the *amadinda* and use mallets to hit the wooden bars.

The *ikembe* originally came from the Congo and has migrated to several countries including Burundi, where it reaches the Nile River basin. It consists of a series of iron *lamellae*, or plates, fixed to a rectangular wooden soundbox. The soundbox is formed by hollowing out a soft rectangular block of wood from the side, placing a few seeds or pebbles inside, and covering it with a strip of wood and sealed with resin, rubber or honey.



Nile Project musician Dina El Wedidi with her duff



ikembe

### See and hear these instruments online!

**ney:** <http://www.youtube.com/watch?v=Ac2g5NW9RhU>

**kawala:** <http://www.youtube.com/watch?v=v8mScv-G1CQ>

**daff:** <https://www.youtube.com/watch?v=x90dfMDaJlc>

**riq:** <https://www.youtube.com/watch?v=BCNra-9NCHK>

**amadinda:** <http://www.youtube.com/watch?v=gJzWOC--ixc>

<http://www.youtube.com/watch?v=6KrYB9f9fsw>

**ikembe:** <https://www.youtube.com/watch?v=r1loXAh4ubw>

# ABOUT THE MUSIC AND CULTURE

The countries making up the Nile River basin show the influence of cultures from around the world. For centuries, trade networks brought goods from other continents through the **Horn of Africa** to the center of the great continent. The 16th century brought European colonial influence, and in the 19th century Arab nations controlled parts of the area. Today, traditional African music that incorporates historical influences as well as modern popular music styles is still performed and taught throughout the region. The Nile Project musicians reflect influences from the following cultures and musical **idioms**.

## MUSICAL STYLES AND CULTURES

In Arabic music, a *maqam* is a set of notes, similar to a musical scale or **mode** (for example major or minor) in Western classical music. Each *maqam* has a built-in emotional character and rules which determine specific important notes, **modulation** and melodic development. Many *maqams* use microtones not found on the piano, the tuning of which varies across regions and towns.

*Chaabi* means “of the people” in Arabic, and refers to a musical style that evolved in the 1970’s in Egypt. *Chaabi* became a medium to express the difficulties of life in urban Egypt. Lyrics are often funny, metaphorical and very political. In modern-day Egypt, it has evolved into “Electro *Chaabi*,” a genre that is grabbing international attention.

*Taqsim* is a term used in Arabic, Greek, Middle Eastern and Turkish music. It is a solo musical (melodic) or vocal improvisation based on the melodic nature of a *maqam* or family of *maqams*. It often introduces a song, but can also take place in the middle of a song or be performed alone. An artist’s ability to establish the mood of a *maqam* through *taqsim*, as well as modulate and return, can have great emotional effect on listeners.



The Ethiopian system of scales and modes is called *Kinit*. At the core of the *Kinit* tradition are 4 unique **pentatonic** scales, called *Tizita*, *Batti*, *Ambassel* and *Anchihoye*. *Tizita* and *Batti* each have major and minor versions, and the **intonation** and **ornamentation** of *Kinit* vary from region to region.

Nubia is an ancient region along the Nile River, which encompassed southern Egypt and northern Sudan, named after the Nubian people who settled in the region. Throughout the Middle Ages, there were several small Nubian kingdoms, the last of which collapsed in 1504. In the 1970s, the construction of the Aswan Dam forced many Egyptian Nubians move away from their villages in to cities and northern regions of Egypt.

*Nile Project musician Nader El Shaer playing kawala, which comes in nine sizes, according to the maqam.*

Map of the Nile River Basin



# CONTEXTUAL BACKGROUND: CONNECTICUT AND NILE RIVERS

The traditions, styles and cultures that contribute to the Nile Project all come from the countries that make up the Nile River Basin. In New England, the Connecticut River serves and connects people across town and state boundaries with a shared natural and cultural heritage.

**A river basin is all the land that drains its waterways into a river and its tributaries.**

It includes all the streams and creeks that eventually flow into one river. A watershed is also the area of land whose waters flow into a particular marsh, stream, river or lake. There are many smaller watersheds within any large river basin.

The Connecticut River Basin consists of two countries—Canada and the United States—and five states: Vermont, New Hampshire, Massachusetts, Connecticut and a tiny slice of Maine.

The Nile River Basin consists of eleven countries: Egypt, Uganda, Kenya, Tanzania, Ethiopia, Sudan, South Sudan, the Democratic Republic of the Congo, Eritrea, Rwanda, and Burundi.

**Tributaries are all the rivers and streams that flow into a river.**

The Connecticut has 158 tributaries, including the Mascoma River and the White River, with over 1,000 dams among them. It drains 11,000 square miles, an area bigger than the entire state of Vermont.

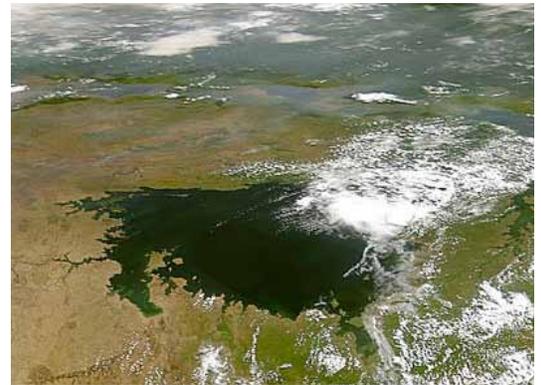
The Nile's two main tributaries are the White Nile and the Blue Nile. The Atbara is the last (or farthest downstream) tributary to contribute to the Nile system. The Nile drains 1,293,000 square miles, or about 10% of all of Africa.

**Headwaters are the beginning of a river.**

They might be a marshy pond, thousands of tiny streams flowing together or an underground spring.

The Connecticut begins in Canada at the Fourth Connecticut Lake, a small pond.

Many people believe Lake Victoria, Africa's biggest lake, is the source of the Nile. Others say the tributaries flowing into Lake Victoria, such as the Kagera River, and the Ruvubu, form the true source of the Nile.



Lake Victoria

**The land alongside the river is called the riverbank.**

Many plants and animal make their homes along the riverbank due to the constant source of water and replenishment of nutrients during a flood. The vegetation growing along a riverbank provides homes for wildlife, protection from **erosion** and a way of filtering pollution from **run-off**.



Banks of the Connecticut River

The banks of the Connecticut are home to bald eagles, peregrine falcons and ospreys, as well as endangered species like the dwarf wedgemussel and the puritan tiger beetle.

The Nile is home to over 100 species of birds as well as crocodiles, hippopotami and baboons.



Nile Crocodile

**Flow describes the water moving through a river.**

The amount of water in a river and the speed at which it travels affect the flow. Discharge refers to the volume of water flowing through a river per unit of time.

The average discharge of the Connecticut is 17,070 cubic feet per second.

The average discharge of the Nile is 99,941 cubic feet per second.

# CONTEXTUAL BACKGROUND: CONNECTICUT AND NILE RIVERS

**Floodplains are the low, flat plains along the sides of river that flood when the water level is high.** Floodplains are important because they absorb extra water in a flood. Without them, the excess water flows downstream, causing damage to property along the river banks.



*Cole's famous painting of the Connecticut*

In 1840, the Connecticut flooded, eliminating the **oxbow** in Northampton, MA, made famous by artist Thomas Cole in his 1836 painting, "View from Mount Holyoke, Northampton, Massachusetts, after a Thunderstorm."

~~~~~ Ancient Egyptian civilization would never have thrived the way it did without the floods of the Nile, caused by heavy summer rains in Ethiopia.



*aerial view of the Aswan dam*

**Dams are barriers that block a river's flow, built to retain water in a certain area or manage when water flows into a certain region.**

The benefits—electricity, distribution of water, harm reduction from floods—must be balanced with the damaging effects—preventing fish migration, imbalanced water management and danger from dam failure.

The Connecticut has 16 dams from Pittsburg, NH to Holyoke, MA, 12 of which provide hydropower.

Dams prevent fish and other river-dwelling species from travelling up and downstream, especially the American shad, the Atlantic salmon, the American eel and the Shortnose sturgeon.

~~~~~ The countries of the Nile have fought for control of the water resources for generations. In 1970, the construction of the Aswan High Dam allowed Egyptians more control over the annual summer floods. In 2010 Uganda, Ethiopia, Rwanda and Tanzania signed an agreement to share water, while Sudan and Egypt strongly disagreed.



*The Connecticut dumped a large amount of silt into Long Island Sound after Hurricane Irene*

**The mouth of the river, or delta, is the end of a river where it meets the ocean or other body of water.**

The water spreads out and slows down, spreading the sediment that it has brought from upstream. River deltas tend to have rich, fertile soil because of all this sediment.

The mouth of the Connecticut, at Old Lyme, CT, is full of sandbars because of the large amount of silt it carries. This prevents navigation and is the reason it is one of the few major rivers in the country without a major port city at its mouth.

~~~~~ The Nile has one of the world's largest river deltas, covering 150 miles of the Mediterranean coastline (more than the states of Connecticut and Rhode Island's coastlines put together!).

**Rivers are more than just water, rocks and bridges.**

Rivers bring people together and have since the beginning of human civilization. Around the world and throughout history, cultures have developed around rivers.

The word Connecticut comes from a Pequot word, *quinetucket*, which means "beside the long, tidal river." The French settlers in the early 17th century used the word and eventually the pronunciation and spelling changed.

~~~~~ The name Nile comes from the Greek "neilos," which means valley. The ancient Egyptians called the river *Ar* or *Aur*, which means black, for the black sediment left behind after floods.

## PRE PERFORMANCE DISCUSSION QUESTIONS:

- What river or body of water is the biggest part of your life? Think about how you and other members of the community use the river—for recreation? Energy? Watering crops? Travel?
- Who are your 'river neighbors?' How do you interact with them? What would happen if you thought of the other people who use the river whenever you swam in it, drove across it, fished in it, or watched water go down a drain? How would it change the way you think of the river?
- What comes to mind when you think of the Nile? Is your image a historical one or a modern one? What, if anything, do you think people in other countries know about the Connecticut River?
- How would you describe African music that you have heard? What types of instruments, rhythms and styles come to mind? What do you know about the differences among different African musical styles?

## POST PERFORMANCE DISCUSSION QUESTIONS:

- What different types of instruments did you hear? Which more familiar instruments did they remind you of? Which seemed the most unusual or different from what you are used to seeing and hearing?
- How many different languages did you hear? Could you understand what the musicians were singing about, even if you didn't understand the language?
- How did the music make you feel? Did it make you want to dance or sing along? Did it bring to mind an image of a specific place?

## LEARNING ACTIVITIES FOR ALL AGES:

### OUR RIVER OF MUSIC

Through the years many American musicians have written songs representing our rivers. As a group, listen to a song that represents a river: examples are Bill Staines' "River," Woody Guthrie's "Roll On, Columbia, Roll On," "Old Man River" from the musical *Showboat*, and the traditional "Oh Shenandoah." Discuss the way the song represents the history, culture, ecology and geography of the river. How do you think the songwriter feels about the river? How does the song make you feel? How does the songwriter use **figurative language** to describe the river? How does the writer's experiences of the river compare to your own?

Extension: Write your own song about the river. When visiting the river for recreation or exploration, take along a notebook to record what you notice and how you feel. Use these notes to construct your own song or poem of the river.

### CREATING A SOUNDSCAPE

Armed with a recording device and a notebook, visit your river and open your ears to the sounds that exist in the river ecosystem. Sit quietly for a few minutes and jot down every sound you notice: birds chirping, water rushing, leaves brushing, feet stepping, motorboats humming. Record as many individual sounds as you can on your device, being sure to notate the source and location as you do. Returning home, use Garageband, Audacity or another digital editing program to weave the sounds together. Think about what you want to communicate with your soundscape. Will it tell a story or evoke a certain feeling? Once you have created the desired effect, sit quietly and listen to the soundscape. How is it different from sitting and listening by the river? Can you see the images of the river when listening to the sounds?

Extension: Listen to your soundscape and imagine that it is a musical piece. What instrument would best imitate the water splashing? How about the sound of the birds or human voices? Find some instruments, either of the traditional variety or made from random household objects, and try to play along with your soundscape and recreate the sonic experience on an instrument. To what extent is it possible? What does the instrument add to or take away from the soundscape?

# LEARNING ACTIVITIES: (CONT.)

## MUSICAL MAPS

The Nile Project brings together musical styles and instruments from across the region. Though some of the instruments are not frequently played together, they may share a common history or ancestor. Research the instruments in the Nile Project to find out their connections. Using the information in this guide, from your library and the internet, determine which instruments come from the same instrument family, which perform the same musical styles or genres and which come from similar regions or cultures. Using pictures (cut from magazines, printed or hand-drawn), make a visual representation of the relationships among the instruments. Your display might take the form of a family tree, a mind map, a web chart or your own unique design. Draw lines between instruments to describe the relationship or put similar items into a cluster. Looking at your visual representation, what other relationships can you find among the instruments? Where would western instruments (e.g. violin, tuba, xylophone, guitar) fit into the layout? What other ways could you think of to group the instruments (e.g., which instruments are used to accompany singing)?

## A DAY AND NIGHT IN THE LIFE OF THE RIVER

How does the river impact your daily life, and how do you impact the river? Keep a log of all the ways you interact with the river in a single day. Carry around a journal to make notes throughout the day. How often do you use running water? When do you pour things down the drain? How often do you drive over bridges, **culverts** or dams? Are you eating fish from the river or produce that was grown along the banks? Do you paddle the river, swim or enjoy the views? After you've made a log of all the interactions, look over the list and think about the impact of the river on your daily life. What can you take away from the list? Who is giving more, you or the river? Are your actions helpful, neutral or harmful to the river? How do your actions impact others who live near the river? How does your relationship to the river change in different seasons? How could you adjust your daily habits to have a less negative or more positive impact on the river?

## TAKE ACTION!

It's never too early or too late to get involved and make a difference to protect the river in your life. Decide what issues mean the most to you and what kind of action you want to take. There are many organizations that organize volunteers and provide resources for people who want to help. In the Upper Connecticut River Valley, consider getting involved with the Connecticut River Watershed Council, Upper Valley Land Trust, the White River Partnership, or the New Hampshire Rivers Council.

**Awareness:** Get the word out to your school, community and town. What are the challenges facing your river, how are the people impacting it and what actions should they be taking? Create a poster campaign, offer to speak in classes and club meetings, write a song, paint a picture or make a video and share it with anyone who will pay attention.

**Advocacy:** Familiarize yourself with your representatives in government, from the town level all the way up to Congress. What legislation should they support that would help the river? Write letters and make phone calls to encourage them to keep the river in mind.

**Fundraising:** Is there an organization in your community doing great work for your river? Donate whatever amount you are able, and ask your family and friends to do the same. A concert can be a great fundraising event, especially if you can find musicians who care as much about the river as you do!

**Direct action:** Get out there and make a difference with your own two hands. Join a group to participate in a river clean-up. Plant a native tree or shrub to protect against runoff and erosion. Volunteer to take measurements or report accidents and erosion to the proper authorities.

Most rivers have a watershed council or a state office that can provide connections to resources that will help you help the river. It's important to work with these groups and others like them to make sure you are using the most accurate information, making the greatest impact and working with people to combine efforts.

## VOCABULARY:

**Anthem:** a rousing or uplifting song identified with a particular group, body, or cause

**Collective:** a group of people who share a common interest or objective

**Culvert:** a tunnel that carries water underneath a road

**Curate:** to select, organize and present the images, artists or performances that will be included in a series or show

**Ecosystem:** a network or interconnected system

**Erosion:** moving soil or rock from one place to another by the force of the water flowing

**Ethnomusicologist:** someone who studies the social and cultural aspects of music

**Figurative language:** language that describes something by comparing it to something else

**Horn of Africa:** the region of eastern Africa that forms a peninsula in the Arabian Sea and includes the countries of Djibouti, Eritrea, Ethiopia and Somalia

**Idiom:** any style that is characteristic of a certain region or period in time

**Intonation:** the accuracy of pitch in music

**Membrane:** a thin layer that vibrates to produce sound

**Microtones:** in music, tones that have an interval smaller than a semitone, or half step, the basic unit used in western music

**Mode:** an arrangement of the eight notes in a scale according to one of several fixed system of intervals

**Modulate:** to change from one tonal center or key to another

**Ornamentation:** musical flourishes that make the basic melody more interesting

**Oxbow:** a u-shaped bend in the course of a river

**Pentatonic:** a musical scale with five notes, used throughout music of different cultures

**Runoff:** draining water off an area of land, a building or other structure

**Silt:** sand or soil that is carried by flowing water

**Sustainable:** able to be maintained over time at a certain level or state

**Timbre:** the characteristic or quality of a musical sound

**Tone:** a musical sound with reference to its pitch, quality, and strength

## OTHER RESOURCES:

The Nile Project  
<http://www.nileproject.org/>

Resources for teaching about Africa  
<http://www.bu.edu/africa/outreach/>

Compare living conditions in countries in Africa to the US  
<http://www.ifitweremyhome.com>

Find facts about the history, people, geography, economy and issues in African countries  
<https://www.cia.gov/library/publications/the-world-factbook/>

Reviews about children's and young adult books about Africa

<http://africaaccessreview.org/>

Learn about rivers across the US and how to protect them

<http://www.americanrivers.org/>

Connecticut River Watershed Council  
<http://www.ctriver.org/>

The Nature Conservancy's interactive site on water conservation  
<http://water.nature.org/>

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