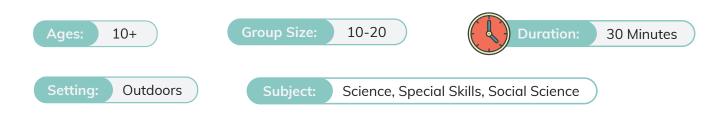




Echoes of the Past

Objective:

Participants will identify cultural and natural sounds of their location. They will imagine historic sounds, differentiating between sounds that belong with the area (intrinsic) and sounds that are not part of the location (extrinsic). Participants will know how sounds influence culture, and will use listening exercises to identify current cultural and natural sounds of their location. They will be introduced to a brief history of the cultural site (Ex: Seminole Rest at Canaveral National Seashore's West District).



Overview:

This lesson focuses on cultural and natural sounds. Participants should visit a culturally significant site within a park for these activities. Beginning with an historic overview of the location, the facilitator will segue into a group discussion of soundscapes present and past. Participants will be introduced to a brief history of the cultural site (Ex: Seminole Rest at Canaveral National Seashore's West District) and learn how sounds influence culture and wellbeing. This lesson is based around group discussion and requires a facilitator and a park ranger or person with historical knowledge of the area.

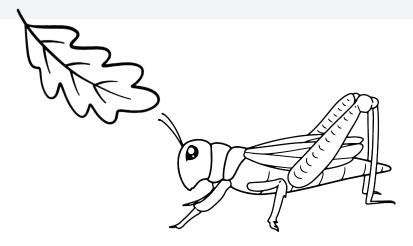


"The loudest sound heard on the Earth within living memory was the explosion of the caldera Krakatoa in Indonesia in 1883. The sounds were heard as far away as 4,500 kilometers." source: R. Murray Schafer



Important Vocabulary:

- Habitat -The natural home or environment of an animal, plant, or other organism. A
person's usual or preferred surroundings.
- **Coastal** Things that are in the sea or on the land near the edge of the sea.
- **Noise pollution** Unwanted or disturbing sound in the environment that affects the health and well-being of humans and other living organisms.
- **Culture** The customs, arts, social institutions, and achievements of a particular nation, people, or other social group.
- Native peoples The term Native is often used to describe indigenous peoples from the United States (Native Americans, Native Hawaiians, Alaska Natives), but it can also serve as a specific descriptor (Native people, Native lands, Native traditions, etc.) or indigenous people - people with a shared national identity, such as "Navajo" or "Sami,"
- **Biodiversity** All the different kinds of life you'll find in one area—the variety of animals, plants, fungi, and even microorganisms like bacteria that make up our natural world. Each of these species and organisms work together in ecosystems, like an intricate web, to maintain balance and support life.
- **Environmental health** Public health that focuses on the relationships between people and their environment; promotes human health and well-being; and fosters healthy and safe communities.
- Intrinsic Sounds Cultural, historic and natural sounds that belong within the experience of a location.
- **Extrinsic Sounds** Sounds not forming an essential part of the experience of a location.





- Find a comfortable place to gather and sit, either in seating protected from the weather or on the ground.
- You may extend this activity by using a portable audio player such as a Bluetooth speaker paired with Smartphone for playback of the audio samples offered: Rain Stick and Throat Singing.

Procedures:

Step A)

Offer a brief history of the cultural significance of your chosen location. A local park ranger or interpretation specialist may volunteer to give a 5–10-minute introduction, or the lead facilitator can research this information prior to the activity. When explaining the cultural history, use as many descriptors as possible, stating the cardinal directions, features of the land, colors, textures, and other identifiers. Include a brief Q&A if time allows.

Beginning with the present year, use each time period to discuss examples of technological development. This activity asks participants to imagine how sounds change through time. Draw the group's attention to all the sounds (animals, wind, water, people, technology, etc.).

Ask:

- What sounds do you hear right now?
- Are these sounds unique to this time-period? (Example: cellphones, digital devices, etc.). This is the soundscape of our time: the digital revolution.
- In what decade were your parents born? Which sounds would they have heard on this site? Are these different from today?
- In what decade were your grandparents born? Which sounds would they have heard on this site? Which would have been different from the sounds your parents heard? (In the early 1900's, America began to hear motorboats, cars, airplanes, and telephones.)
- In what time-period did European settlers set up businesses (or tourism) in this location?
- The soundscape changed dramatically after the Industrial Revolution. Were there trains moving through this land? Horses? What did people use for cooking fuel?
- What about the people native to this land? What did they hear? (Example: fire, stone, brick ovens, tribes telling stories or preparing for ceremonies, etc.)
- Can you imagine hearing these sounds now?

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Step B) Read Quote by Dr. Bernie Krause (soundscape expert and field recordist)

Speaking about our ancient ancestors, "our imagination and our innate need to hear relationships between sounds would have been first stimulated by the voices of the tropical and temperate forest, deserts, high plains, tundra, and coastal regions, where we camped, hunted, and listened. This would have served as a template from which to arrange our own sounds – made with our voices and early instruments. While we were carefully listening, we would have transformed what we heard into expressions that reflected immediate links to the world around us." For example, "a tribe once completely isolated in the tropical Brazilian mountains and rainforests, the Yanomami use rain sticks to incorporate their acoustic environment into their ceremonies and music...Inuit groups who live in the Northwest Territories of Canada emulate in their music the constant wind that roars across the open plains and tundra, the strongest natural acoustic presence of their environments. By subtle manipulation of sound's resonance as it comes from their throats, the singers can generate multiple harmonics that leave the impression of many voices simultaneously coming from one source."

Play audio samples below, if there is time.

Step C)

The facilitator gives the definitions of intrinsic and extrinsic sounds before leading into a discussion about how sounds influence culture and wellbeing.

Say: Intrinsic sounds are cultural, historic, and natural sounds that belong within the park experience. Extrinsic sounds are sounds that do not form an essential part of the park experience.

The facilitator will give an example of one intrinsic sound and one extrinsic sound that they notice present in the moment.

Ask:

- What sounds do you enjoy in this environment? Are the sounds intrinsic or extrinsic?
- Are any of these sounds common in your everyday experience?
- Do any of those sounds inspire you to be creative? To sing or dance?
- Which sounds are important for visitors to enjoy their experience of the park?
- Which sounds distract from your enjoyment of the park?
- What would you like to change about the soundscape in this location?



Audio Samples:

Rain stick:







The name of the Native American tribe, Wy'am means 'echo of falling water,' which came from the sounds of Celilo waterfall along the Columbia River before it was muted by the flooding from Dallas Dam (nearby Portland, Oregon). source: Bernie Krause



Resources:

Bernie Krause, The Great Animal Orchestra: Finding the Origins of Music in the World's Wild Places, Paperback (New York, New York: Little, Brown and Company, 2012)

Bernie Krause, Wild Soundscapes: Discovering the Voice of the Natural World, Revised (New Haven, Connecticut: Yale University Press, 2016)

U.S. National Park Service and Colorado State University. 2019. "Junior Ranger Sounds Explorer." U.S. National Park Service.

https://www.nps.gov/subjects/sound/upload/Junior-Sound-Ranger_09232019_678-429_FINAL.pdf.

Deanna Ochs et al., eds., "The Power of Sound: the Natural Sounds and Night Skies Division Interpretive Handbook" (National Park Service Natural Sounds and Night Skies Division, 2018), https://www.nps.gov/-subjects/sound/upload/PowerSound_May2018updated-508.pdf

Next Generation Florida Sunshine State Standards / Common Core

SC.4.N.1.1 -	Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information, conduct both individual and team investigations through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.
SC.5.P.10.1-	Investigate and describe some basic forms of energy, including light, heat, sound, electrical, chemical, and mechanical.
SP.PK12.VI.1.2 -	Apply listening and auditory skills, such as discriminating sounds and associating concepts, actions, and ideas with expressive language.
SP.PK12.VI.4.2 -	Locate school and community resources for recreation and leisure that facilitate participation by individuals who are blind or visually impaired.
SP.PK12.VI.6.1 -	Apply listening and auditory skills, such as discriminating sounds and associating concepts, actions, and ideas with expressive language.
SP.PK12.US.22.1 -	Use appropriate social and interpersonal skills and strategies to interact with peers and adults for various purposes across settings.
SC.6.N.2.3 -	Recognize that scientists who make contributions to scientific knowledge come from all kinds of backgrounds and possess varied talents, interests, and goals.
SP.PK12.US.13.3, SP.PK12.VI.5.6 - Identify common auditory environmental stimuli and locations, such as the sound of a water fountain in the hallway and traffic sounds in the roads.	
CC-SL.1.	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
CC-SL.2.	Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
CC-SL.3.	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.
CC-SL.4.	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

(((Sound)))) Echoes of the Past

Field Notes:

Deliver an introduction to your group about the location and how it has developed over time. This should focus on cultural history, but could also include key environmental changes.

Step A) Listening Through Time

- Begin with the present day and ask volunteers to name sounds that they hear at the current location.
- Highlight that we live during a digital revolution. Ask the group to name sounds that are unique to this time period.
- Guide the group in thinking about these approximate time periods one at a time:
 - Decade that their parents
 were born
 - Decade that their grandparents
 were born
 - Second Industrial Revolution (circa 1870 to 1914)
 - European settlement and colonization (late 1400s to early 1800s)
 - Native people and Indigenous cultures (before 1400s)
- For each time period, focus on three essential questions:
 - How would a visit to this site sound different?
 - What sounds from that time period are missing from today?
 - What sounds from the present would be missing?

Audio Samples:

Rain stick:





Step B) Read quote by Dr. Bernie Krause

There are many examples of people mimicking natural sounds in both ancient and indigenous cultures. These sounds were often incorporated into music and ceremonies.

- Yanomami people in the Brazilian mountains and rainforests use rain sticks to evoke the familiar sound of precipitation.
- Inuit groups in the Northwest Territories of Canada emulate the roar of wind by manipulating the resonance of their throat.
- Ask the group to consider if there are ways that natural sounds still influence our present lives.

C) Intrinsic vs. Extrinsic Sounds

- Explain that intrinsic sounds include cultural, historic, natural sounds that belong within the park experience. Contrast these with extrinsic sounds, which are not essential parts of the park experience.
- Call attention to one example of each at the current location.
- Guide the group in reflection on the differences between intrinsic and extrinsic sounds using the following questions:
 - Which sounds do you enjoy most in this location?
 - Do any sounds relate to your everyday experience?
 - Do any sounds inspire you to be creative?
 - Which sounds distract from enjoyment of this location?
- Wrap up the conversation with a final hypothetical question: What would you like to change about the soundscape in this location?