

Acoustic Ecology

Acoustic Ecology is the study of the relationship between people and the sounds in our environment. It's important to recognize that the sounds we make change our acoustic environment. Some contemporary musicians view the recognition of acoustic environments (or 'Soundscapes') as a form of composition; the practice of heightened, focused listening while walking outdoors is referred to as a **Soundwalk**. These concepts were pioneered and popularized by Canadian composers R. Murray Schafer and Hildegard Westerkamp, among many others.

Resources

<https://naisa.ca/radio-art-companion/an-introduction-to-acoustic-ecology/>
<https://www.sfu.ca/sonic-studio-webdav/WSP/index.html>

Sound Density describes the dimension of musical texture related to how many sounds are happening concurrently. An instance of high sound density would involve many sounds happening together (eg. a symphony orchestra playing all together), and 'low density' would describe an instance of few sounds (eg. a solo voice and guitar). This relates to the composition activity in that not all students will be playing at the same time. The class and PSMS may decide to affect sound density by appointing a soloist, having small sections play together, and contrasting with full-group sections. We can also apply these terms to our acoustic environment; ask students how many sounds they can hear happening at once on the soundwalk and in the classroom.

Works Referenced

- Beethoven *Symphony No. 6*: <https://youtu.be/p4CCU2-AFZE?t=1166>
- Respighi *Pines of Rome*: <https://youtu.be/mdve48nptNk?t=924>
- Westerkamp *Talking Rain*: <https://www.youtube.com/watch?v=VZF88yrK5Gg>

Additional Soundwalking Resources

- A guide to soundwalking:
https://www.hildegardwesterkamp.ca/writings/writingsby/?post_id=13&title=soundwalkin_g
- Soundwalking as ecological practice:
https://www.hildegardwesterkamp.ca/writings/writingsby/?post_id=14&title=%E2%80%8Bsoundwalking-as-ecological-practice-
- About soundwalking: <https://newmusic.org/soundwalks/>
- An example from 'Early Years' education:
<https://icsearlyyears.edublogs.org/2014/10/14/listening-and-wondering-on-a-sound-walk/>

Leading the Composition Activity

Teachers may choose to lead this module using this guide, instead of hiring a post-secondary music student.

This activity is an exploration of different sounds and sound densities and culminates in the performance of a composition.

- Begin by asking students to demonstrate their instruments. You may ask some students why they chose to use certain items as instruments.
- Review and ask class to demonstrate the following concepts, noting the range between the two extremes:
 - Sound density - high density and low density
 - Many instruments playing vs. few instruments playing
 - Volume - soft and loud
 - Speed - fast and slow
 - Pitch (if applicable) - high and low
- To aid in working with these concepts, you may wish to establish visual signals for the above, and for the following:
 - Stop
 - Keep going
 - Narrowing or expanding what part of the class is playing
- Decide with the students on a set of concepts to use in your composition. Organize these into a series, using the worksheet provided. Not every section must feature every student, but do ensure that all students get to participate in the piece.
- Assign symbols or gestures to these sections and collaborate with students to create a sequential composition.
- Once class is clear on the concept of the composition, appoint a student conductor to run through the piece and perform!

Guide to Soundwalking

“A Soundwalk is a silent walk along a planned route to experience a location’s ambiance and underlying rhythms. All too often the sounds of the environment pass by unnoticed because of our uncanny ability to shut them out. A Soundwalk invites participants to actively listen, opening ears and consciousness to the complex orchestration that the environment is composing at all times. It is a musical-sonic adventure that reveals the banal to be extraordinary!”

- From Vancouver New Music, ‘Soundwalks’. Presented in association with the Vancouver Soundwalk Collective (2020). <https://newmusic.org/soundwalks/>

As the leader of this Soundwalk, your goal is to help students stay focused on the acoustic world around them. This will be achieved by choosing a suitable route and pace; pause in places with particularly interesting sounds and don’t hesitate to move on from a place if students are getting distracted. You may choose to reuse prompts from the guiding activities

below to refocus the attention of the group. Hildegard Westerkamp likens leading a soundwalk to improvising in music; “Although [you, the leader] knows the basic ‘piece’ or sonic route, in the end it invariably gets altered and ‘re-composed’”¹.

Suggested Process

Plan route ahead of time.

1. To get started, walk with the class for a short distance. Don’t worry yet about walking in silence.
 - Once outside, pause. Ask students to stand in a circle/spread out and pose the following:

Guiding Activity 1

- Try to stand as still as possible. Listen closely; what sounds can you hear your body making?
 - Now, try to move your arm without making any sound. Try to take a step forward. Is it possible?
 - Once again standing still, **turn your attention to the environment**. What sounds do you hear? What’s the loudest? The fastest, the softest, the slowest, etc.?
 - Explain to students that the sounds we make contribute to the sounds in our environment.
2. Move on to the next location. As you are walking, draw students’ attention to any changing sounds. Are certain sounds getting louder? Are the sounds of your footsteps different from what they were before?

Guiding Activity 2

Pause. Ask students to stand in a circle/spread out.

- Going around the circle or calling on students individually, create a verbal list of sounds. Go through the following categories:
 - A. Traffic sounds (cars, busses, planes...)
 - B. City or urban sounds (construction, industrial sounds...)
 - C. Sounds from other people (the person next to you, other students in the class, people outside of the class...)

¹ Hildegard Westerkamp, “Soundwalking as an Ecological Practice”, *The West Meets the East in Acoustic Ecology*. Proceedings for the International Conference on Acoustic Ecology, Hirosaki University (November 2006).

D. Nature sounds (wind, birds, rustling of leaves...)

- Ask students to focus on one sound for approx. 15 seconds. After, discuss which sound they chose and why. Did it change as they listened?
4. Continue on your soundwalk. If class size is conducive, verbally engage the class in listening as you walk.

Guiding Activity 3

Pause. In pairs or small groups, have students experiment with the following:

- A. Cupping ears to make them bigger.
 - B. Closing their eyes.
 - Discuss: Can they hear more this way?
5. Continue. Pause in different acoustic environments and repeat any of the above guiding activities as desired.
6. Conclude by walking back to classroom and leading Closure activity.