

Wild Wednesdays

Week 2: *Soundscape Mapping*

By Hara Woltz



Spring is one of the best times of the year to hear birds in North America. Migratory birds are returning from winters in warmer climates, and many species of birds are mating and nesting, engaged in the process of bringing baby birds into the world. There's a lot of bird conversation going on!

It's fun to look for birds, as we did in last week's [Wild Wednesday](#) lesson, and it's also fun to listen for birds and record their vocal patterns. When we work in our nature journals, we often focus on what we see, but using your sense of hearing is another great way to observe the world around you. With that in mind, for this week's *Wild Wednesday* activity, we're going to map the sounds we hear. Biologists call this a "soundscape," which means a record of everything that you hear. These sounds can be broken down into categories and types that we can record.

Some people distinguish sounds based on the origin of what is making the sound:

Biological

Anything related to living organisms other than humans. Examples include sounds such as a Northern Cardinal singing, a bee buzzing, a dog barking, a squirrel scurrying up a tree.

Geophysical

Anything of the geologic or physical world not made by humans. Examples include the sound of wind, the sound of water moving in a stream, the sound of waves at the beach.

Anthropological

Sounds that are related to humans. Examples include sounds such as a car driving by, a window being opened, a lawn mower, a radio, or television.

Wild Wednesdays are created by Manager of School and Community Partnerships Corinne Flax, and artist and scientist [Hara Woltz](#). The Bruce Museum is pleased to partner with Woltz, whose practice focuses on investigating the relationships between humans, the environment, and other living organisms. All *Wild Wednesdays* online lessons are designed for groups or solo learners, are appropriate for learners from second grade through high school, and can be appreciated by adults as well.

Keeping a nature journal is a wonderful way to connect to the world around you. Sometimes people wonder, what will I record in this journal? Why would I do this? You may be surprised by what you notice when you take the time to record things in a notebook. In my work as an artist and a scientist, I fill up a lot of journals. Here is a picture of a pile of my sketchbooks, and a few pages from two:



Some of the reasons that I like to keep a nature journal include:

- Drawing and writing about what I observe makes my brain feel curious, playful, and creative.
- Recording observations makes me feel connected to nature and the world and the experience that I'm having right that second.
- Reading my notes afterwards helps me to remember my experience in greater detail.
- Journaling generates questions about what I'm hearing or seeing and inspires me to try to answer those questions later through research.
- Most important, it's fun!

Sometimes it's hard not to get caught up in what a drawing looks like, but try not to be too concerned about creating something pretty. Recording through pictures, words, and numbers is a process of learning. Anyone can learn to draw, and you learn to draw by DRAWING A LOT! Make messes, create drawings that you might not like, and don't worry, keep going. Experiment and have fun. You never know what you might discover.

First things first, you will need a nature journal to record your observations. There are so many options for your journal. It can be large or small, homemade or bought. I use all different types of books depending on what I'm doing and how I'm feeling. The most important thing is to have plain paper that you can draw on. Any sort of paper will work, except for tissue paper, because that will be too thin. It's okay if your paper has lines or a grid or dots on it.

If you want to make your own notebook, here is one example of how to do that:

ACCORDION JOURNAL

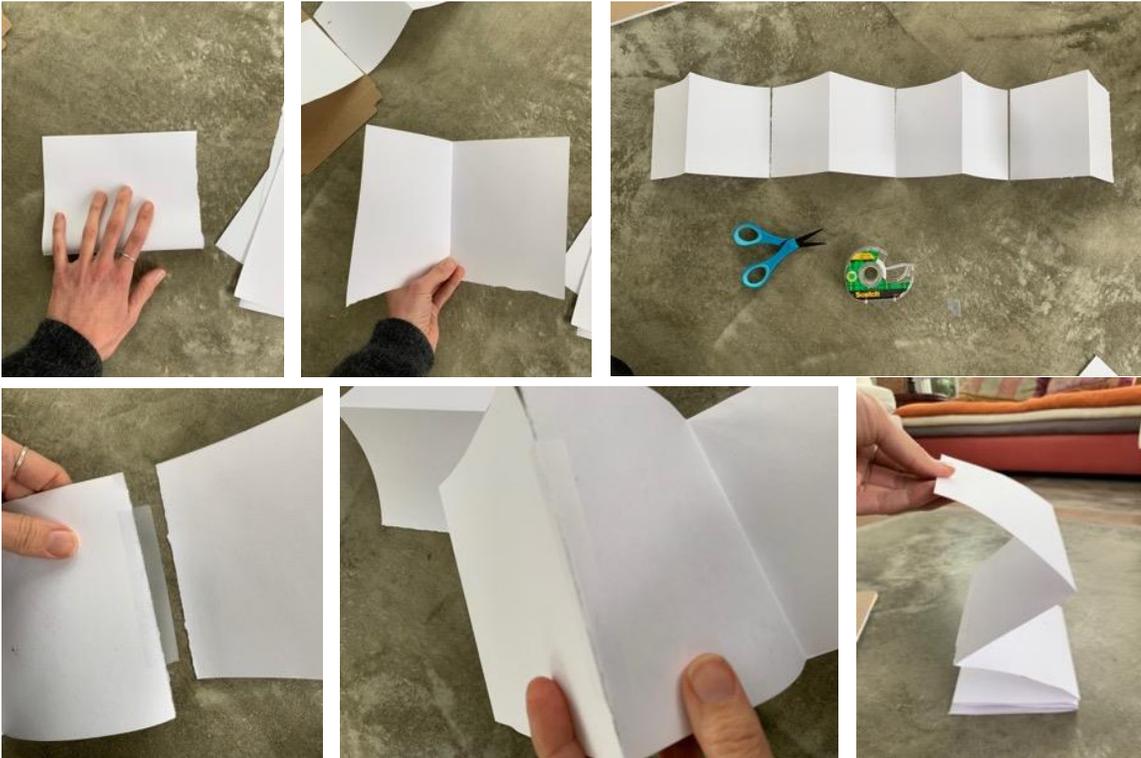
Materials:

- 5 or more sheets of paper
- One-sided tape
- Glue stick or double sided tape
- Cereal box or some other type of boxboard box
- Scissors

Process:

- Fold each sheet of paper in half
- Line up all your folded pieces of paper so that they look like small tents next to one another

- Tape the edges of your folded sheets of paper together. Tape the seam where the pages connect on both the front and back for added durability. You can use masking tape, washi tape, or scotch tape.



Making a cover for your journal:

- Cut along the seams of an empty cereal box so that you can unfold it and trace the folded paper onto the inside of the cereal box. Cut out the traced cereal box rectangle. Repeat so that you have two cereal box pieces for your covers.
- Tape the cereal box pieces to the front and back pieces of paper. You could use double-sided tape, a glue stick, or folded over pieces of tape.
- You can add detail your journal's cover with drawings and words.



Other ideas for making your own notebooks can be found here:
<https://www.accessart.org.uk/making-sketchbooks-an-introduction/>

Premade Journal

If you don't feel like making a notebook, or if you already have a notebook or sketchbook that you can use, go find it!

SOUNDSCAPE MAPPING ACTIVITY

Materials

- Your nature journal
- Pen or pencil
- Colored pencils or markers

Gather your materials and head outside. It's best to get outside if you can, but if this isn't an option, you may seat yourself in front of an open window.

Step One: Pick your spot!

Find a good spot for sitting. You want to be comfortable enough that you could stay in this place for 15-20 minutes.

Step Two: Initial sound assessment.

Sit down and get comfortable. Close your eyes and take some deep breaths. Let yourself start to focus on sounds without the distraction of looking around.

Try to sit still like this, hearing and breathing for a little while. If you have a timer, you could set it for two minutes and count how many different sounds you hear.

Some questions to ask yourself:

- What do you hear first?
- What's the loudest thing you hear?
- What's the softest or quietest thing you hear?
- Do the sounds repeat themselves?

Step Three: Open your nature journal.

Make a decision about your layout. You can choose to make your soundmap on a single page, or across two pages.

Step Four: Record some data about the environment.

Your location, the weather, the time of year, and the time of day can have a big impact on what you observe. Scientists and artists often begin their observations by writing these things down. Many birds are the most active early in the morning. Wind, temperature, and precipitation can have a big impact on how plants and animals act.

Pick a corner of your journal page and make some notes that include:

- **Location:**
Record some information about where you are making these observations.
- **Date:** '
Day, month and year.
- **Time:**

What time is it?

- **Weather:**

I usually include the temperature, the cloud situation, whether it is sunny, rainy, or snowy, and how windy it feels. You can make some general notes about what you see, and you can also look up the weather for your area online, or use a backyard thermometer if you have one.

For example, it's currently cloudy and 49 degrees Fahrenheit where I live. It rained earlier today so the grass is wet. The sky is full of clouds, so I record 100% cloud cover. It's windy enough that the branches of the trees are softly waving.

Step Five: Draw a symbol of yourself in the middle of the page.

You will hear things in front, in back, and to the sides of you and you will want to leave enough space record where you think the sounds are coming from.

Step Six: Draw in the sounds.

Begin by drawing the most distant sounds. Place your marks about those sounds at the edges of the paper. Create a key, or a language of pictures, that lets you know what the sound is. Be creative and use different colors for different sounds. Add words, symbols, diagrams, numbers, colors. Describe sounds with words (clicky, buzzy, whistly, rolling, piercing, fluffy, strong). Describe sounds with lines.

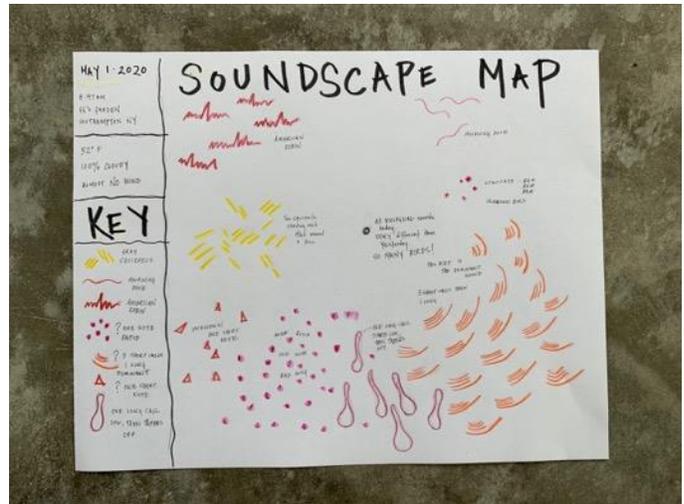
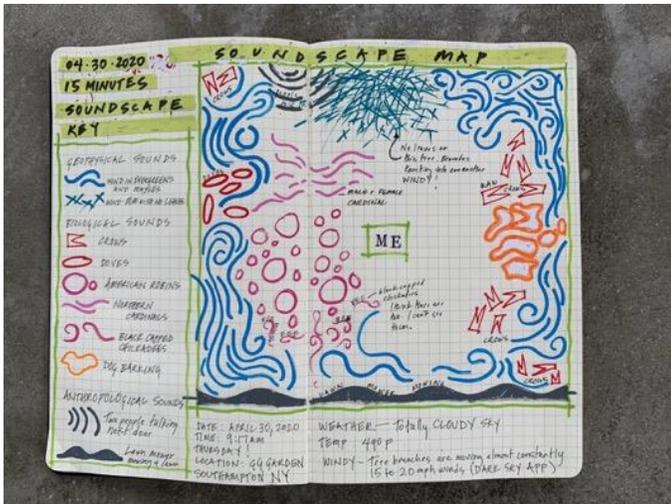
Depending on how many colors you have to work with, you might choose to do something like use different greens for all your biological sounds, different purples for all your geophysical sounds, and different reds and oranges for all your anthropological sounds. Or, do something totally different. There is no right answer.

Add sounds by working your way in from the edges of the page. If you hear something new in the distance that you didn't catch before, add that in. Remember that this is a process; the longer you spend listening, the more that you will notice.

Invent and label the symbols that you use. As you listen, you will probably find that some sounds are high, and some are low. Some are consistent, some are repeated and some only happen once. Some start in one place and move to another.

After you work on your sound map 15 to 20 minutes, you will probably have a terrific record of what you heard, a sound picture of a part of a day in your backyard. It's really fun to repeat this process at different times of day and then compare your maps.

Here are two examples of soundscape maps that I made recently.



Step Seven: Round out and review this experience for yourself.

When you are finished, ask yourself these questions and make some notes:

- What sounds stood out the most?
- How many different sounds did you hear?
- What sounds were the most confusing?
- What sounds were constant?
- What sounds were the least frequent?
- Were there any patterns?

If you are lucky enough to see the bird that is making a sound, try to draw it. Later you can use online resources such as the Cornell Lab of Ornithology, IBird, or INaturalist to help you figure out the bird species that you heard.