

INSTRUCTIONS

In order to successfully create a post for the Soundmap, you will first need to record a sound. Then, you will edit the sound and create its spectrographs. Finally, you will upload your sound file and related images to the Wordpress site.

Recording the Sound

If you are using the Tascam sound recorder

1. Place the windscreen over the top of the microphone as shown below



2. Turn on the microphone by holding the stop (□) button
 - a. If it is not turning on,
 - i. check the HOLD switch on the side.
 - ii. try new batteries.
 - b. If you want to monitor the sound while recording, plug headphones into the side of the recorder
3. Lay the recorder on its side or screw the tripod into the backside of the recorder
4. Point the recorder toward the sounds wanting to be recorded
5. Press the Record button twice to begin the recording (or once just to set levels).
 - a. If the recorder is picking up sound, the bars on the recorder should be reacting to the sound
 - b. The time on the screen should also be running, showing the recorder is recording and storing the sound



6. Run the recorder for 1 to 5 minutes for soundscapes. (*Finished soundscape should be 30 to 120 seconds, but if you record more you can edit it later.*) Try not to move the recorder while it is recording so that the distance of the sounds to the recorder remains consistent—*unless there is a reason to record with the changing sonic perspective that occurs as you walk through an area, in which case be very clear about this in your notes and writeup. (For example, in a soundscape that is layered but steady.)*
7. When it is time to stop the recorder, press the record button (this will pause the recording) and then press the stop button to store the recording
8. To transfer the recording off the recorder, use the recorder's plug (should be within the bag) to connect the recorder to your computer
 - a. Then drag the file to the desktop
 - b. You can also use an SD card reader to pull the file onto the computer

If you are using a FiFine microphone

1. I recommend recording straight to your computer if possible, and using a powerful recording application such as Audacity (which is free).
 - a. If your computer is filtering out noise, figure out how to stop that.
2. Download Audacity from <http://www.audacityteam.org/>
3. Save your original recordings in a lossless format—probably .wav. [Select **File > Export**; then choose **format: wav files**.

If you are using a Shure MV88 microphone

1. I haven't tried it yet, so I leave it up to you to figure it out. The mic is designed to be used with a phone, connected via USB-C or Lightning cable, and controlled by a downloadable app. When recording straight to a phone (or computer), be aware that some sound-filtering is probably happening and you need to turn it off.



Recording reverberant spaces

1. For reverberant spaces, you will need to use a balloon, a needle, and ear plugs. When the balloon is popped in a reverberant space, it will create an impulse response that lasts for a duration of time.

2. In order for this to work, you will first have to blow up the balloon. The bigger the balloon, the greater the impulse response time will be. Place your microphone within 2-4 feet of the balloon. If the microphone is too close, your audio will most likely peak due to the extremely loud noise. *The DR-40 has a solution for this: Press REC MODE; using the arrow and central ENTER buttons, select DUAL. This will cause the recorder to make two recordings at once, with the second one at a lower volume level than the first.*

Then set DUAL LVL to about 15 dB.

3. Make sure to put ear plugs in.
4. Pop the balloon! Try not to scream. Wait for a few seconds until there's no more audible reverb and then stop the recording.
5. Reverberant sounds should be processed in Praat. Professor Cramer wrote an algorithm that identifies the moment when the balloon is popped, and records the frequency and intensity level of the reverb audio. With the information from the graph in Praat, you can describe how reverberant the space is.

Editing in Audacity. (Use for soundscapes or maybe birds. Don't use for balloon pops; go straight to the Praat plugin.)

1. Download Audacity from <http://www.audacityteam.org/>
2. Open the wav. File in Audacity
3. Use the Edit menu to trim the recording down to a one- to two-minute segment. The recording should be continuous; don't delete segments from the middle of the recording. *If you need to represent the soundscape using two different segments of sound, introduce a second of silence between them (Generate > silence), or create and upload two separate recordings.*
4. Go to Effect > Amplify from the toolbar
5. Set the New Peak Amplitude to something between -6dB and -2dB

Don't decide this based on how loud the loudest sound is, but based on what it takes for the quietest sounds to be heard. (So if the recording has some very quiet sounds, set the peak to -2dB, but if the sounds throughout are rather loud, set the peak to -6dB.) For a balloon pop, set the peak to -4dB.

6. Under the File menu, export the audio as high-quality mp3 with a descriptive title that will be easy to find later, using the format YEAR-MONTH-CAMPUS-LOCATION-INFO.mp3.

Examples:

2026-Feb-HMC-Hoch.mp3

2026-Mar-POM-Walker-Mockingbird.mp3

Pomona = POM, Scripps = SCR, etc. Off campus in Claremont = CMT;
outside Claremont = ELS or OUT.

Instructions by Alfred Cramer and Ladin Boluk