

Intro:

Hello and Welcome to Noisy Nuances. A podcast examining noise and its various interpretations. Today specifically, we will take an overview of what noise is, the types of noise, health risks, and accessibility through noise culminated in a brief experiment I ran by providing students at Oberlin with free earplugs. Throughout our investigation we will consider: Is noise harmful by limiting the accessibility of space, and who decides what noise is good?

Since we are focusing on noise, some sounds may be too harsh for our listeners. In the case when you hear (insert bell noise)¹ it should act as a reminder to turn down the volume or stop listening as sounds may be unsettling. I will also try to provide timestamps in the description for noisome sections to avoid this.

So, let's jump into our topic for today: noise

Main topic: noise

So, the main question to start our discussion is, what is noise?

This is a hard question since people hold various opinions toward noise.

In his book, *The Soundscape: Our Sonic Environment and the Tuning of the World*, Schafer provides a glossary with various definitions for noise. Schafer points out that the Oxford English Dictionary defines noise as “Unwanted sound” with references dating back to as far as the year 1225. Noise is also identified as a disturbance in any signaling system and electronics in engineering, noise refers to any disturbance that does not represent part of the signal, such as static on a telephone or snow on a television screen (Schafer)².

¹ “Download Free Bell Sound Effects.” Mixkit, mixkit.co/free-sound-effects/bell/. Accessed 16 Dec. 2023.

² Schafer, R. Murray. 1994 (1977). *The Soundscape: Our Sonic Environment and the Tuning of the World*. Rochester, VT: Destiny Books.

Side tangent: Noise music

However, Schafer also includes in his glossary a definition of noise being, “*Unmusical sound*”, a definition from 19th-century physicist Hermann von Helmholtz. He used noise to describe sound composed of non-PERIODIC vibrations compared to musical sounds, which consist of periodic vibrations.” Schafer continues by saying, “One man’s music may be another man’s noise, but it holds open the possibility that in a given society, there will be more agreement than disagreement as to which sounds constitute unwanted interpretations,” (Schafer)³. This can lead many to think: can noise be music?

To some, yes, it is.

In an article titled “A Beginner’s Guide To Noise Music,” writer Peter Woods states, “Noise comes from the circulation of cultural ideas and artifacts, emerging from the accumulated meaningless debris that accompanies all forms of communication.” (Woods)⁴. For example, if the recordings on that record are what you want to hear, vinyl pops and scratches become noisy. That means that artists who intentionally activate that noise create noise music.

As the name suggests, noise is an experimental genre that deviates from traditional music composition, tone, and structure in favor of a primarily noise-based sound. Almost anything can be used to create or generate this kind of music, including electronic devices, non-musical objects and machinery, extreme vocal techniques, and traditional and acoustic instruments. The website Rate Your Music describes noise music as frequently discordant, loud, abrasive, and spontaneous in its composition. These noisy techniques are frequently produced using computer generation, feedback, distortion, and manipulation.

³ Schafer, R. Murray. 1994 (1977). *The Soundscape: Our Sonic Environment and the Tuning of the World*. Rochester, VT: Destiny Books.

⁴ Woods, Peter. “A Beginner’s Guide to Noise Music.” *Hard Noise*, 3 July 2019, noise.thehardtimes.net/2019/07/03/a-beginners-guide-to-noise-music/.

Since its beginnings, noise has developed into a broad range of genres and styles, influencing artists working in all intensity levels⁵.

Here are some examples of noise music ranging in their sound, listening is advised ()⁶:

- "Dissolve" by Puse Mary⁷
- "Submerge" by Lana del Rabies⁸
- "monument To Perez Prado" by Nurse With Wound⁹
- "Meditation 1" by Rebecca Galbraith¹⁰
- Thank you reddit¹¹

Return to Main Topic:

For the most part though, "The most satisfactory definition of noise for general usage is still unwanted sound."(Schafer)¹². This makes noise a subjective term.

It is important that we begin with Schafer since he was among the first to coin the term "soundscape" and is widely regarded as the creator of acoustic ecology; the study of sound and its relationship to life and society. Acoustic Ecology takes into account elements like being in the right place, the effects, the surrounding acoustics, and the animals/people that inhabit an environment. There are three subcategories that we can identify within soundscapes which were coined by musician and soundscape ecologist Bernie Krause and his colleague Stuart Gage

⁵ *Noise - Music Genre - Rate Your Music*, rateyourmusic.com/genre/noise/. Accessed 17 Dec. 2023.

⁶ "Download Free Bell Sound Effects." *Mixkit*, mixkit.co/free-sound-effects/bell/. Accessed 16 Dec. 2023.

⁷ "Dissolve." YouTube, YouTube, 4 Mar. 2020, www.youtube.com/watch?v=pwjZrbo6Hco.

⁸ "Submerge." YouTube, YouTube, 22 Mar. 2018, www.youtube.com/watch?v=jR5gM24gbMM.

⁹ "Monument to Perez Prado." YouTube, YouTube, 24 June 2017, www.youtube.com/watch?v=0j9Iu5sbuDA.

¹⁰ "Meditation 1." SoundCloud, soundcloud.com/user-366128265/meditation-1?si=43a40b035f7c4d92b7a1bae687fb6a98&utm_source=clipboard&utm_medium=text&utm_campaign=social_sharing. Accessed 16 Dec. 2023.

¹¹ "Great Female Noise Artists." Reddit, www.reddit.com/r/noisemusic/comments/11d378z/great_female_noise_artists/. Accessed 16 Dec. 2023.

¹² Schafer, R. Murray. 1994 (1977). *The Soundscape: Our Sonic Environment and the Tuning of the World*. Rochester, VT: Destiny Books.

from Michigan State University: Biophony, geophony, and anthrophony. We specifically will be examining Anthrophony,

Anthrophony:

Originally a term coined by Bernie Krause, anthrophony can be defined as, “the sounds generated directly by humans, or by our technology.” (Krause, Clarke)¹³.

This definition can be further broken down into categories of "controlled sound," which includes things like language, music, and theater, and "uncontrolled sound," or simply "noise," which is more common and includes things like construction noise, traffic noise, and the industrial processes. Four fundamental categories of human-generated sound have been further delineated by Krause: electromechanical sound, physiological sound, controlled sound, and incidental sound. (Krause)¹⁴

By far, uncontrolled sound is where we find harmful noise. In his chapter, “The Fog of Noise,” from *The Great Animal Orchestra: Finding the Origins of Music in the World’s Wild Places*, Krause says, “Noise itself attracts attention without delivering much information. It’s wasted energy for loudness, and when enclosed spaces generate a small amount of heat.” (Krause)¹⁵. He continues by saying noise is an acoustic event that defies expectations. Giving the example that loud, heavy metal music in a small restaurant is noise, or music in almost any restaurant, for that matter. The faint sounds found in natural soundscapes are drowned out by noise. Many different living things have reactions that we can identify, from humans as the effects of harmful noise.

¹³ “What Is Anthropophony? Definition and Examples.” Earth.Fm, 14 Oct. 2023, earth.fm/glossary/anthropophony/.

¹⁴ Krause, Bernie. 2012. *The Great Animal Orchestra: Finding the Origins of Music in the World’s Wild Places*. New York: Little, Brown.

¹⁵ Krause, Bernie. 2012. *The Great Animal Orchestra: Finding the Origins of Music in the World’s Wild Places*. New York: Little, Brown.

This idea that Krause identifies can be all-encompassed by the term noise pollution and it can have serious impacts on a person's health.

Noise Pollution and the Harmful Effects of Noise:

The threat posed by noise pollution is unseen. Even though it is invisible, it exists both below the surface of the ocean and on land. Any undesired or upsetting sound that has an impact on people's health or the health and well-being of other living things is regarded as noise pollution. *Soundscape Ecology: The Science of Sound in the Landscape* published by the American Institute of Biological Sciences states that “ noise, is a common issue in cities globally, and the problem has spread to more rural and remote areas with the expansion of motorized transportation networks.”(BioScience)¹⁶

In National Geographic's article on noise pollution, they continue describing that loud noise exposure can also lead to stress, heart disease, elevated blood pressure, and disturbed sleep. Similar statements have been identified by the Mayo Clinic and the Cleveland Clinic to also cause hearing loss. The National Geographic article continues by elaborating that all age groups, but particularly children, are susceptible to these health issues. It has been discovered that many kids who live close to noisy streets or airports experience more stress and other issues like memory loss, attention deficit disorder, and difficulty reading¹⁷. Krause identified in the *Fog of Noise*, “...beginning in the early 1980s a relationship between exposure to urban noise and increased human stress levels has attracted a growing amount of research.”

Not only has noise been linked to health issues, but noise can also negatively contribute to the mental well-being and growth of a person.

¹⁶ Bryan C. Pijanowski, Luis J. Villanueva-Rivera, Sarah L. Dumyahn, Almo Farina, Bernie L. Krause, Brian M. Napoletano, Stuart H. Gage, Nadia Pieretti, *Soundscape Ecology: The Science of Sound in the Landscape*, BioScience, Volume 61, Issue 3, March 2011, Pages 203–216, <https://doi.org/10.1525/bio.2011.61.3.6>

¹⁷ “Noise Pollution.” Education, [education.nationalgeographic.org/resource/noise-pollution/](https://www.education.nationalgeographic.org/resource/noise-pollution/). Accessed 16 Dec. 2023.

Noise Accessibility and Privilege:

While inclusion implies that everyone has access to the opportunities and resources necessary to realize their full potential in public or professional life, accessibility focuses on making sure systems are built to allow everyone to do so. Going above and beyond, belonging creates a culture in which all individuals are welcomed and encouraged.

In Krause's book, he argues that "Our auditory processing system is conditioned over time to know which signals are meaningful and return our attention to be focused on what we see. But our brains are working overtime to retrieve and process this information... Most of us find noise stressful, or all the above-unwanted sound in our lives, causing multiple kinds of physical and psychological reactions many of them unhealthy, especially when the noise persists "(Krause)¹⁸. This exemplifies how noise has great impacts on our physical health, but also our mental health. If we define accessibility around focusing on making sure systems are built to allow everyone to have an equal chance; how do we fight for people who are affected by noise?

A Daily News New York article, written by a local on Dyckman Street reported that "Because of frequent interruptions, students in lower grades were reading several months behind peers on the quieter side of the building. By sixth grade, they were reading nearly a year behind counterparts."(Votaw)¹⁹. Noise is inhibiting the comprehension and ability of students to learn, let alone maintain the same educational level as their peers. Thus exemplifying how noise limits accessibility.

However, given the writer's description of their career as a yogi, and the tone of the piece, it is safe to assume that the person writing has some form of privilege. These two things can coexist, the privilege of the writer and the distress of noise in New York City hindering learning.

¹⁸ Krause, Bernie. 2012. *The Great Animal Orchestra: Finding the Origins of Music in the World's Wild Places*. New York: Little, Brown.

¹⁹Content, Contributed. "Dyckman's Deafening Daily Drumbeat: A Local Resident Is Sick of the Noise." *New York Daily News*, New York Daily News, 8 Apr. 2018, www.nydailynews.com/2016/07/16/dyckmans-deafening-daily-drumbeat-a-local-resident-is-sick-of-the-noise/.

However, it is hard to determine the place the argument of this article holds in the conversation of noise and accessibility since it is rooted in privilege.

Even in Oberlin, there is a noticeable privilege of noise. According to the city regulations, it is forbidden to make loud or unreasonable noises that could annoy or inconvenience other people. This covers using any sound amplification system in a car when there is sound that can be heard at least fifty feet away from the car.²⁰ This can hold, while those who live close to the renewable natural gas plant in Oberlin have to live around constant noise. It should be noted that the neighborhoods near this plant are lower-income neighborhoods. “Noise and poverty is a chicken-and-egg situation that’s related to the trajectory of development... Loud areas...tend to have lower real estate values, and are often the only neighborhoods low-income people can afford.”(Budds)²¹. This fact still holds in Oberlin. While Oberlin is a college town, noise privilege is alive and well within the town. Forcing those with limited social mobility to suffer while others remain fine.

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Given all this information, it truly made me think about how I can make an impact on noise accessibility and how to use my privilege for good.

## **BREAK**

I’ve been talking for a while, so before I jump into my experiment and survey results let's take a moment to listen to some calming ambient music, a smooth, soft form of noise music ()<sup>22</sup>

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<sup>20</sup> “Select City Regulations.” City of Oberlin, [cityofoberlin.com/for-residents/select-city-regulations/#:~:text=Noise%20%E2%80%93%20Unreasonable%20noise%20or%20loud,or%20more%20from%20the%20vehicle](https://cityofoberlin.com/for-residents/select-city-regulations/#:~:text=Noise%20%E2%80%93%20Unreasonable%20noise%20or%20loud,or%20more%20from%20the%20vehicle). Accessed 16 Dec. 2023.

<sup>21</sup> Budds, Diana. “Urban Poverty Has a Sound—and It’s Loud - Fast Company.” Fast Company, 30 Mar. 2017, [www.fastcompany.com/90107856/urban-poverty-has-a-sound-and-its-loud](https://www.fastcompany.com/90107856/urban-poverty-has-a-sound-and-its-loud).

<sup>22</sup> “Download Free Bell Sound Effects.” Mixkit, [mixkit.co/free-sound-effects/bell/](https://mixkit.co/free-sound-effects/bell/). Accessed 16 Dec. 2023.

### \*\*\*Music Break\*\*\*

And... we're back. You are once again listening to Noisy Nuance. We just took a break to absorb all our information on noise. Now we are going to take a deep dive into the survey I ran. `

## Ear Survey:

### Overview:

For my final project in Ethnomusicology 212: Music and Ecology, I wanted to conduct a study on having public access to earplugs to protect human hearing from noise pollution and take a philosophical view on who is allowed to categorize noise as good or bad.

This project has taken many different forms since I first started it. Originally, and throughout its drafts I have made the central focus of this project toward noise pollution and how it affects our health. This came to me when I was pushed against a speaker at a house show. I had loud ear ringing for the following day and my speech was equated to screaming because I had experienced temporary hearing loss. So, this inspired me to think about how students can protect their hearing. Oberlin SIC (Sexual Information Center) provides free condoms, Plan-B, and lube<sup>23</sup>, the Oberlin public library provides fentanyl test strips<sup>24</sup>, so why is there nothing for hearing?

I would examine so by investing a portion of my own money into acquiring foam earplugs, about 150 pairs for 15 dollars, and leaving earplugs in Mudd for Oberlin students and community

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<sup>23</sup> "Health Promotion and Prevention Services." Oberlin College and Conservatory, 7 Dec. 2023, [www.oberlin.edu/student-health-and-wellbeing/student-wellness#:~:text=Students%20can%20access%20condoms%2C%20lubricants.Vending%20area%20\(119%20Woodland%20St.](http://www.oberlin.edu/student-health-and-wellbeing/student-wellness#:~:text=Students%20can%20access%20condoms%2C%20lubricants.Vending%20area%20(119%20Woodland%20St.)

<sup>24</sup> Ransom, Cal. "OCS, Rural Response Network Dispense Naloxone, Fentanyl Testing Kits at Pop-up Event." *The Oberlin Review*, [oberlinreview.org/29609/news/ocs-rural-response-network-dispense-naloxone-fentanyl-testing-kits-at-pop-up-event/#:~:text=Fentanyl%20test%20strips%20are%20available,basis%20because%20they%20require%20training](http://oberlinreview.org/29609/news/ocs-rural-response-network-dispense-naloxone-fentanyl-testing-kits-at-pop-up-event/#:~:text=Fentanyl%20test%20strips%20are%20available,basis%20because%20they%20require%20training). Accessed 16 Dec. 2023.



members who use Mudd library to take them freely. Specifically, I would be running this experiment during the last few weeks of the semester. This was ample timing since there are always various campus/non-campus affiliated events the students attend during the last few weeks of class. I used music events like Solarity and Rando bando at the Sco' to leave my survey and earplugs to encourage students to participate in my survey. My hope was and still is to take my findings to the college, specifically the Oberlin Office for Disability and Access, and petition them for funding to keep providing earplugs. Noise is all around us and we should have the means to protect ourselves.

### Shortcomings and Biases:

To understand the full results of the survey I should address that my survey did have its shortcomings and biased opinions.

While I did have a station of earplugs set up in Mudd library, a majority of the other campus groups I contacted to help spread the availability of my survey and earplugs were primarily music-oriented. These organizations include the Oberlin Dionysus Disco (The Sco' for short), The Cat in the Cream coffeehouse, Concert Sound (my employer), and Solarity, a giant end-of-the-semester concert. With these groups being musically centered, they may have most likely owned earplugs, giving a biased opinion.

Another shortcoming was the voluntary method of filling out the survey. Only those interested would fill out the survey leading to a smaller data set.

Consent is a must, and so for my survey, I was trained to ask for IRB consent. It should be noted that at venues like The Sco' or Solarity, many students come to those events intoxicated in some manner, making them unable to participate.

Lastly, the decibel readings I took on my phone could be skewed since even grabbing the phone near the speaker can set off the Sound meter.

And so, these were my findings.

### Results:

Of the people who participated in my survey, 85.7% were college students, and 14.3% were not. Of that 85.7%, 83.3% were a part of the college population, 16.6% were dual degree students, and no conservatory students participated in the survey.

In contrast, 71.4% of the participants agreed that If Oberlin/Oberlin College had a public way to provide earplugs, not just for a concert, they would use this resource, and the other 28.6% would not.

By far the most interesting findings were participants' reasons for taking ear plugs including:

- "for fun"
- "I use them for some concerts but not anything else."
- "Love to have them in case my AirPods die."
- "I only use earplugs for concerts / I already have a pair of my own"

My favorite response though was someone taking earplugs for hearing health, proving the importance of having access to resources like this.

A few of my participants chose to take an optional longer survey, however, given how much smaller that participation was it is hard to draw conclusions and make assumptions based on only a few people.

I was working on the Solarity sound crew and many people, myself included, were wearing earplugs. Understandably so, since the decibel reading from my phone read to be about 85 to

100 dB. Further proving the importance of earplugs since as we discussed exposure to sounds this loud can cause hearing damage/loss.

Accessibility and Privilege within the Survey:

Since my project's inception, I have been hoping to get in touch with the Oberlin Office for Disability and Access, ODA for short. According to their page on the Oberlin campus website, "ODA facilitates equal access to all programs, courses, services, facilities, and activities provided at Oberlin College while encouraging students to develop self-advocacy." (Oberlin ODA)<sup>25</sup> They continue by saying, our office provides resources for students with disabilities to uphold Oberlin's long and rich history of recognizing and supporting diversity by aiming to include students with disabilities in the diverse and inclusive residential learning environment. Therefore, I was under the impression that reaching out to a group like this would be a great opportunity to expand campus inclusivity.

To get the communication started I sent the following email:

"Dear Oberlin Office for Disability and Access,

My name is Rebecca Galbraith.

I am taking a class, Ethnomusicology 212: Music and Ecology, and I am currently writing a final about accessibility and noise. I am currently running a free ear plug survey in Mudd. I am hoping to take my data to petition for more public access to earplugs.

I was wondering if your office could let me know what type of accommodations you provide students when it comes to noise reduction. Does your office work with event planning groups on campus to make events more accessible for students with sensory issues?

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<sup>25</sup> "Office for Disability and Access." Oberlin College and Conservatory, 10 Jan. 2023, [www.oberlin.edu/disability-access](http://www.oberlin.edu/disability-access).

Equally, I would love to work with the office to bring students a public way to get earplugs to mute noises around campus.

If you would participate please fill out this consent form: <https://forms.gle/ZEqbPEvYWj6DasYx5> and reply to this email.

Thank you for your time and consideration

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Yours,

Rebecca Galbraith"

This was sent about three days ago, and I still have received no response. Understandably it is the final season so I would expect a delay in response. However, as a group that is for students, I would hope for some more due diligence given the office's importance on campus. If advocating for the inclusivity of spaces for all, then where are the ways to auditorily make spaces accessible?

#### Taking the next steps:

You might be thinking, after all this work, now what?

A Harvard Health and Medicine article argues that "As researchers reveal the mechanisms and magnitude of noise-induced illness, clinicians will become better equipped to identify at-risk patients and prescribe effective solutions." (Dutchen)<sup>26</sup>. Despite my survey's shortcomings, I do feel a sense of accomplishment in the success of the survey. Even with as little participation as there was I still want to advocate for students to have access to earplugs.

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<sup>26</sup> Dutchen, Stephanie. "Noise and Health." Harvard Medicine Magazine, [magazine.hms.harvard.edu/articles/noise-and-health](https://magazine.hms.harvard.edu/articles/noise-and-health). Accessed 16 Dec. 2023.

Equally, despite the lack of communication, I am still hopeful about taking action and will persist in trying to connect with the Oberlin ODA.

**Closing Thoughts/Remarks:**

As we reach the end of our noise exploration it is important to understand that the work is not done. Hearing is an essential part of our lives. Noise is a million things and yet it is part of our every day. We need to understand its place in the world, and while small, earplugs are just one way we can start protecting ourselves and others. Equally, we are left thinking still who has the privilege to make noise.

Thank you for listening to Noisy Nuances.