

Inclusive Listening: Developing Multiple Theory-Based Practices for Aural Studies

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Abstract

Our essay presents a critique of the limitations of Western Classical Music (WCM) in Aural Studies curricula, and the problems this poses for students from diverse musicking backgrounds. We propose a new teaching and learning framework, inspired by Black Feminist Pedagogy and aimed towards inclusivity, that devotes prolonged attention to multiple kinds of listening and analysis practices outside the WCM tradition. Our framework will be a live, open-access resource for teachers and self-directed students to understand various methods of listening and analysis. We prioritize the ability of this framework to communicate to students from a variety of disciplines and musicking backgrounds, including those who wish to develop listening skills relevant to electronic music practices, sound art, scored music, improvised music, and traditional and popular musics. We believe that Aural Studies should be a teaching and learning space where a radical, prolonged breaking-down of institutional hierarchies can be enacted and propose that Aural Studies practices hold the potential to escape the notation-centeredness of WCM and the power dynamics implicit in that orientation.

Introduction

In most music departments and schools in the global north, Aural Studies is limited to Western Classical Music (WCM); students are taught how to identify melodies, harmonies, and rhythms, and how to vocally reproduce these from, or dictate them into Western notation. These courses are seldom qualified with clear cultural framings, promoting the notion of an unmarked, yet implicitly white and Western (Ewell 2020), frame as the only way to listen to and to analyze music.

As core courses, usually required in the first and second year of study, these classes often serve as gatekeepers, shutting out students who cannot reliably vocalize pitch, who have problems with functional memory and attention, or who simply come from diverse musicking backgrounds. It is telling to review the recent industry-standard volume *The Routledge Companion to Aural Skills Pedagogy* (Cleland & Fleet 2021), which at times claims a “holistic” approach but at best introduces some examples of Western popular music to diversify its contents and strategies. Such an orientation can cause damage, discouraging students that do not identify with the promoted musical practice or agree with its singular status, and can be deeply problematic for musicians whose traditions have been marginalized by institutional priorities. Additionally, conventional teaching and learning practices center around reproduction of predetermined norms, as opposed to student-centered approaches (Hoidn 2017; Coss 2019) that allow for expansion and exploration of personal notions of listening.

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Many music teachers are aware of the limitations of existing curricula for teaching multiple forms of music and cultural sound production, and are actively seeking alternative methods, of comparable depth, through which students can develop a practice in listening, analyzing, and creating sound. With an aim towards inclusivity and inspired by Black feminist pedagogy, in the sense of developing collective strategies of care for contesting institutional power structures (Omolade 1987), a group of musicians from around the world is currently working on a new teaching and learning framework that devotes prolonged, anti-tokenistic attention to multiple kinds of listening and analysis practices outside the WCM tradition. Our plan is to create a live, open-access resource for teachers and self-directed students to understand various methods of listening and analysis, including empowering individuals to create new ones. In order to put these ideas to work, our framework extends four methodological commitments we borrow from Black feminist pedagogy: dialogue-based teaching and learning, a nurturing of personal expressiveness, accountability to oneself and to the collective, and attention to the lived experiences of all participants (Collins 2000).

As a distributed collective working asynchronously, we are a flat, anti-hierarchical organization engaging in congressional listening to arrive at a consensus for an open structure to which we hope multiple people will contribute. Right now, we anticipate creating a website hosted by Stony Brook University through their commons platform. Schedel has already co-founded the open-source Journal of Networked Music and Arts², with the help of Stony Brook librarians. Together, we seek to create a media-rich resource not currently available through conventional sources. In addition, we will be producing an accompanying downloadable book using the principles of Universal Design for Learning to ensure access for users with diverse learning and physical abilities (Ross and Meyer 2006).

This essay, which we welcome you to read as a manifesto, outlines some ideas and potential starting places for a new Aural Studies curriculum, along with some basic frameworks for starter modules to give a concrete sense of how such a project might proceed. These frameworks are a place for building a series of teaching and learning modules soon to come. Each module will be intended as a self-contained flexible learning environment where we scaffold concepts—building from foundational themes to more complex ones. Each segment will be valuable across all levels of teaching and learning, from first-year introductory curricula through doctoral studies, with a recommended level clearly marked. Most importantly, we prioritize the ability of this framework to communicate to students from a variety of disciplines and backgrounds, including those who do not have conventional conservatory training and who wish to develop listening skills relevant to electronic music practices, sound art, scored music, improvised music, and traditional musics, including Western European traditions. We anticipate that modules could be used in courses for students across all disciplines: Music Production, Music Industry, Music Technology, Sound Art/Sonic Arts, Ethnomusicology/Sociology of Music, Musicology, Composition, Practice-based Music Research, Creative Practice in Music, Film Studies, Critical Media Studies, Digital Game

² <https://commons.library.stonybrook.edu/jonma/>

Music, etc., in addition to conventional conservatory music practices. Ideally, the teachers using these resources would create a course with no prerequisites, and build scaffolded knowledge throughout the course.

We believe Aural Studies should be a teaching and learning space where a radical, prolonged breaking-down of institutional hierarchies can be enacted. What does this mean, and why is Aural Studies a viable space for such emancipatory action? First, Aural Studies by definition proceeds from hearing and listening. As a space of inquiry, it therefore holds the potential to escape the notation-centeredness of WCM and the power dynamics implicit in that orientation (Saana & Väkevä 2020). Second, Aural Studies practices are essentially participatory and communicative, facilitating intersubjective understanding. Third, as a creative participatory space, Aural Studies has the potential to lead to the inauguration of intentional communities of multi-listening practitioners, always breaking down and extending beyond sedimented practices. Fourth—and this is a desideratum even of very conventional Aural Studies practices—it encourages an interpretational posture that strives to be apodictic with the object of listening experience. In this sense, Aural Studies functions essentially as a phenomenological practice. Fifthly, Aural Studies can be a space for prolonged, transformative, ecological listening practice (Clarke 2005), changing the world in addition to interpreting it. Our contention is that such modes of listening practice can be put to work to change the world in addition to interpreting it.

Where to Start

The site and book will be set up to encourage exploration; each teacher will find their own path through modules such as Sound in Space, Deep Listening[®], Close Listening, Creative Listening, Active Listening, Activist Listening, Feminist Listening, Indigenous Listening, etc. What do we hear, how can we hear, how can we talk about what we hear? What are we allowed to hear?

A student may want to independently study the larger implications of sound and listening. A module on talking about sound, inventing a vocabulary that goes far beyond pitches and rhythms, thinking about the ethics of listening and what is at stake in being a sensitive yet intense and nimble listener goes far beyond liberal accounts of ‘active’ listening aimed at the professional managerial class (Rost and Wilson 2013).

Another student might prefer to start with the concrete acoustic properties of sound: understanding waves and properties of the harmonic series and surfaces and materials and how timbre works. A module on acoustics, some basic physics, sound quality and instrument design, and vowel formants (Rigden 1985) facilitates this orientation. Through classroom teaching in traditional music departments, we know this benefits the study of Western classical musicians, particularly the late twentieth century compositional style of spectralism which takes the material attributes of sound as the point of departure for composition (Drott 2016).

Conversely, a teacher might prefer to start by developing a community by making sounds—any sounds—together. Vocal sounds, body sounds, sounds produced by whatever ‘tools’ are ready at hand. How many sounds can you make with a book or a pencil or a hat or scarf? What kind of an orchestra can we form with the objects around us in the room? How many variations of a ‘hum’ can you invent? Make a silly sound, make a curious sound, make a gruff sound. Make a round sound or a triangular sound. Make a sound that changes into another sound. Make five sounds in a row.

All of these approaches will put critical theory into practice, using the academic expertise and lived experience of the sonic and musical lives of all involved.

Aural Studies across Cultures and Abilities

As we have argued, one of the main issues at stake in Aural Studies curricula is a nearly ubiquitous focus on Western Classical Music practices, with their attendant notation-centricity, pedagogical assumptions, diatonic and functional-harmonic organizational strategies, and so on. This of course erases an overwhelming majority of the world’s music (Stover 2022). We will not center WCM and explain how other music differs. Instead, we will reinforce that every cultural music practice, including lively micro-cultures-in-information, is a norm in its own right and on its own terms. This amounts not to a flattening-out of musical understanding in a futile search for universals, but a radical, coalitional commitment to difference and diversity (Mohanty 2003).

Hearing, as both a biological and psychological process, not only changes from person to person, but morphs in individuals over vastly different time scales. The web of processes that culminates in the experience of hearing is intricately interconnected and fundamentally adaptive and fluid. The ability to consistently hear high frequency information changes drastically over the course of a lifetime, but is also greatly impacted by the tightness of the listener’s clenched jaw or the volume of the concert they attended the previous night. Cognitive state, diversity in cochlea formation, individual neurodiversity, current air pressure—the list of factors that could actively impact hearing is incredibly long and often surprising. Treating hearing as a fixed state creates a problematic and self-defeating foundation on which to build a self-affirming practice of listening.

The framework we present not only acknowledges that hearing abilities occur on a spectrum, but extends this as an affirmation that hearing is a spectrum of spectra (Minkler et al. 2006). Practically, this concern with dis/ability manifests itself as: (1) active acknowledgement of the full spectrum of spectra that comprise hearing, (2) deliberate and meaningful inclusion of technology ranging from assistive technology such as hearing aids and cochlear implants to common tech such as guitar tuners, pitch detectors, etc. in modules, (3) D/deaf-positive language for example “deaf gain” as opposed to “hearing loss” where appropriate (Bauman and Murray 2009), (4) clear labeling of modules where tactile-vibration feedback is actively supported, and (5) generous exclusion (Priya 2020) with clear labeling of assumed knowledge and abilities for each module.

All participants developing modules for the site and book will be encouraged to adhere to the principles of this manifesto. Following are two lesson plans that we are currently developing for the site. These are intended to be full classes with assigned readings in addition to skills-based components. A teacher could choose to focus on one area or the other, or both, if time allows.

Two module sketches

These modules assume a single three-hour class, but can be easily adapted for a one hour class which meets 3x a week. Facilitators teaching shorter classes can use a selection of activities.

Module 1: Theme: Listening skills from psychoacoustic, cultural and creative perspectives

Pre-assigned Readings and/or Viewings:

- Excerpt from the Introduction of Stephen Handel, *Listening: An Introduction to the Perception of Auditory Events* (The MIT Press, 1993).
- Oliveros, Pauline, “The Difference Between Hearing and Listening.” TEDxIndianapolis (2015) https://youtu.be/_QHfOuRrJB8

Select from the following for additional pre-assigned Readings and/or Viewings:

- Levin, Theodore, and Valentina Süzükei, “Timbre-Centered Listening in the Soundscape of Tuva,” in *The Oxford Handbook of Timbre*, ed. Emily I. Dolan and Alexander Rehding (Oxford University Press, 2017), pp. 205–228.
- Lewis, George E., “Improvised Music after 1950: Afrological and Eurological Perspectives,” *Black Music Research Journal 22, Supplement: Best of BMRJ* (2002), pp. 215–246.
- Born, Georgina, “After Relational Aesthetics: Improvised Music, the Social, and (Re)Theorizing the Aesthetic,” in *Improvisation and Social Aesthetics*, eds Georgina Born, Eric Lewis, and Will Straw (Duke University Press, 2017), pp. 33–58.

We suggest pre-assigning one student from the class as the respondent for each Reading or Viewing, who will give a brief introduction, providing a brief summary of its main concepts and principles and then facilitate the discussion.

Some leading questions to consider for the readings:

- What does “psychoacoustic” mean, and how does it differ from “acoustic”? In what ways can listening be a social practice or phenomenon?
- How is the way we hear affected by how we understand the world?
- How can we change how we hear by focusing our listening differently?

- Is listening to the world with intention a kind of music theory?

Lesson plan:

- [5 min] “Environment Listening” Activity: listening attentively to the sounds in the classroom space.
- [10 min] Discussion and brainstorm about what was heard, thinking about continually refining what is hearable and how (the psychoacoustic angle).
- [20 min] Student-led discussion of Handel reading, orbiting around concepts and terminology.
- [10 min] Listening and Reproducing: beginning with a recorded drone or other audio stimulus, shape into a collaborative vocal improvisation starting with mimicry and progressing from there.
- [20 min] Student-led discussion of Levin, Lewis or Born reading
- [10 min] Looking and Reproducing: beginning with looking at the environment of the classroom, sonify the landscape around you, incorporate movement, shape into a collaborative vocal improvisation centered around perceiving and matching pitches in the environment.

break

- [20 min] Student-led discussion of Oliveros video, discussing concepts of Deep Listening and listening as a social activity, with a student respondent
- [10 min] Preparation for the Tuning Meditation workshop, either forming an approximate circle in the physical space, or using a spatial audio online platform (such as High Fidelity), allowing sufficient time for students to attune themselves to the ambient sound of the space.
- [15-20 min] Performance of one of Pauline Oliveros’s Sonic Meditations.
- [20 min] Lab: small groups working on creative activities built around timbral manipulation and other ideas from all three readings.
- [10-15 min] Sharing and plans for next class.

Notes on the methodology and planning: Having a pre-assigned student respondent for each subject encourages active student participation, collaboration, student voice, responsibility, and inclusivity. It shifts the focus from a teacher-centered approach to a student-centered one, where students become active agents in their own education, fostering a more engaging and meaningful learning experience. The respondent begins the discussion for each subject, then the instructor and other students continue the discussion based on the respondent’s initial prompts. This also invites deeper engagement with their assigned reading/listening, and allows the respondent to identify areas that may be particularly challenging. The first class can be spent going over the readings/viewings/listenings for the term, with students volunteering for their preferred subjects as the term progresses through an online form.

For all collaborative activities, including discussion, students should be allowed to form a circle. If the class is conducted remotely or in a hybrid format, a spatial audio API (application programming interface) such as High Fidelity can be used to allow each student to position themselves spatially *vis à vis* other participants via an avatar. In this case, students should receive High Fidelity coordinates in advance of the class to test in their browsers, if in-person tactile vibration audio is supported, and about ten minutes of class should be dedicated to testing and debugging.

Tangible learning objectives:

- Introduction to basic concepts of psychoacoustics
- Introduction to Deep Listening[®] theory and practices of Oliveros
- Introduction to mimicry of the environment as music theory
- Gaining a broader understanding of listening as both a psychoacoustic and social phenomenon
- Improving pitch perception and reproduction by consciously listening to and matching pitch by ear
- Gaining skills in spatial listening

Intangible learning objectives:

- Gaining listening skills that may be applied in both musical situations and daily life
- Fostering creative activity by conceptualizing listening as a creative act

Assignment (for one week later):

- Create a text-score listening exercise for the class to perform, submitted on a single A4 or 8.5 x 11 PDF page. The text should include instructions related to listening, and may or may not include instructions for making sound. The exercise does not need to specify a duration; however, it should be feasible to perform it within a 5–10-minute period.

Module 2: Theme: Using Informatics to Further Understand Listening; Using Informatics to Listen for Us

Programming computers to measure pitch and create complex timbres provides objective measurements, visualizations, comparative analysis, and insights into music, speech, and hearing. These computational tools enhance human understanding of sound by providing accurate measurements, facilitating representation and analysis

Pre-Assigned Readings or Listenings:

Students are invited to bring a sound-making device from home which will be the input into the computer system; this can be as complex as an instrument or as simple as a rubber band

Lesson plan:

- [30 min] Code-A-Long in P5JS³. The class follows along as the instructor codes a pitch and volume detector in real time, replicating their steps and thereby gaining the experience of making a successful build process from start to finish.
- [20 min] Play with students' own instruments to see them working. Discuss discrepancy between the data output expected from instruments and what happens when they are played. Find possible discrepancies in computational measuring tools.
- [10 min] Discuss perceptual relativism in humans and the dB scale.
- [20 min] Code-A-Long to make our pitch and volume detector play a sound in reaction to detecting a certain pitch or volume.
- [20 min] Brief discussion of audio-generators and how they work.

break

- [30 min] Lab/free play for students to adjust, explore, learn from the help documents, and talk with each other.
- [30 min] Share and Reflect. Students show what they did, and describe what surprised and challenged them.

Notes on the methodology and planning:

- The Code-A-Long format allows students to quickly attain a level of complexity in coding an audio environment that would normally take days to learn from the ground up, giving them an experience of success in creating a complex interactive system that can then be both built on, modified, broken down, and analyzed as class progresses.

³ P5JS offers advantages such as accessibility, platform independence, substantial web-based documentation, and instant feedback. Instructors can use any coding platform they are comfortable with that is also available to their students.

- With Human-Computer-Interaction students gain a concrete understanding of how human perception does not easily map to computer listening
- The share-and-reflect at the end of class creates a student-driven vocabulary list, a retroactive amendment of the syllabus as seen through the eyes of the students, and provides an exercise that helps reinforce the experiences of the day.

Tangible learning objectives:

- Introduction to dataflow programming
- Introduction to how computers listen to and create frequency and pitch
- Introduction to audio synthesis and how computers create complex timbres
- Improving pitch and timbre perception through

Intangible learning objectives:

- Learning by making
- Learning by editing rather than starting from a blank slate
- Experiencing practical applications of a theory one can immediately hear and use

Assignment (for one week later):

- Modify your program to be reactive and produce a sound in response to a sound in the environment, using the techniques you have learned.

Conclusion

When developing the modules for the book and website, we will encourage contributors to return to this quote from Leah Bassel's *The Politics of Listening*, which sets a program for a radical listening pedagogy:

“[R]esponsiveness to difference...a receptive generosity...the ‘art’ of the sociologist who is humble and attentive to complexity...a necessary methodological commitment with new spaces and intensities of listening that accompanies ‘voice as value’ as a counter-rationality to neoliberalism...‘listening out’ as an attentive and anticipatory communicative disposition...a means to realize the promise of deliberative democracy through structured disagreement underpinned by ‘apophatic’ listening, where the listener temporarily suspends their expectations, views and frames.” (Bassel 2017, 4)

The idea of listening as an art ought to be particularly exciting for students. Combined with the notion of apophatic listening—of striving always to expand how one is capable of listening, continually shifting one’s listening perspective—this allows us to have lively, productive conversations not only about how we all hear differently, but also how we can all learn how to

hear differently. This is an underlying theme that will thread through our entire collective project, no matter whether a given module is focusing on aural perception, neurodiversity, cultural practices, or any other theme. At all times our project foregrounds how listening in itself can be an intensely creative act.

If you'd like to be involved, please contact margaret.schedel@stonybrook.edu

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