Constructing an antiracist framework for theatrical sound design

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"In the ethno-poetics and performances of the shaman, my people, the Indians, did not split the artistic from the functional, the sacred from the secular, art from everyday life. The religious, social, and aesthetic purposes of art were all intertwined. Before the Conquest, poets gathered to play music, dance, sing and read poetry in open-air places around the *Xochicuahuitl, el Árbol Florido,* Tree-In-Flower... The ability of story... to transform the storyteller and the listener into something or someone else is shamanistic. The writer, as shape-changer, is a *nahual*, a shaman."

- Gloria Anzaldua, *Borderlands/La Frontera*

INTRODUCTION

Sound design is a practice. It touches several fields: sound designers are at once musicians, anthropologists, educators, audio engineers, and programmers. There are multiple ways to approach the work, from working entirely analog with modular synthesizers to using OSC to link Max with the light board to ensure cues go off simultaneously. Sound design is also different each time you practice it; creative teams change, audiences change, and you change. With the multitude of approaches you can take, it is difficult to create any single framework that encompasses the entire practice.

Yet, when we discuss antiracism, it is necessary to create a framework that encompasses the practice of sound design. Antiracism specifically in theatre is largely discussed in terms of directing, casting, and acting; due to its ever-changing nature, sound design is much more difficult to pin down and point to any one thing and say, “This is racist.” Because it encompasses so many different approaches, no single framework in any single field fully describes what it means to be a sound designer. Any antiracist framework created for sound design must not only be academic, but practical, and must address each component of the design process.

Why is this necessary? Intersectionality is an inherent part of the sound design process. Sound design is not done in isolation; we work with other designers, directors, casts, crews, and, of course, texts. A sound designer is certain to work with at least one person with a background

dissimilar from theirs over the course of their career. In addition to this, theatrical sound is specifically created with an audience in mind. Audiences are rapidly diversifying; there exists a growing hunger for productions authentic to the lived experiences of many different kinds of people. Accordingly, sound designers are, more than ever before, often asked to design for shows depicting cultures different from their own. With all of these increasingly common forms of diversity sound designers encounter, having an antiracist framework with which to approach the practice is of the utmost importance.

Antiracism is also relevant to everyone involved in the design process, from director to designer to crew member to audience member. A relevant framework is certainly a thing I wish I had had as a new designer. The first show I designed was a jungle-themed rendition of *A Midsummer Night's Dream*. When I met with the director to discuss his vision, he told me he wanted me to look into African rhythms and compose a beat for the fairies to play. I am not Black, nor did I have context for African rhythms beyond extremely stereotypical depictions I had seen in media. I spent a few weeks researching African music in my spare time and eventually created a sort-of polyrhythm based on what I found, but I knew I was not doing the music justice.

I couldn't understand why at the time. I thought I had done everything right: weeks of research, objective study of method and technique, and implementation based on everything I had learned. But what I was missing was the single thing most central to this thesis: context. Not only did I not fully understand the music whose ideas I was using, but I had taken it out of its cultural and religious context to—of all things—make a show sound jungle-y. It was stereotypical. It was what everyone expected to hear. As someone who struggled at the time to place myself in my own context, I felt dirty.

Here is the context in which I understood myself at the time: I was a gay Hispanic-Asian-White genderqueer kid who had grown up an Army brat and thus had never felt attached to any one particular place. I was a no sabo kid who took Spanish in high school and had promptly given up on it. I was studying Mandarin out of a desire to feel more connected with that side of my heritage although, as I was soon to discover while studying abroad, merely speaking Chinese and telling friends part of my father's side was 广东人 was not nearly enough to convince people I was anything but an American whose connections to ethnicity were tenuous, at best. I wholeheartedly subscribed to the idea of objective learning at the time; I was convinced that if I could just learn enough, if I could just study and research and do all the right things, I could do African rhythms or Tejano or traditional Chinese music justice.

Here is what I didn't think about: I have a vastly different context than, say, the guzheng major I met in Xi'an. If I wanted to compose something for traditional Chinese instruments, I would have very different—and likely much larger—obstacles to overcome. Similarly, if a white student from the Midwest wanted to compose Tejano music, they would likely have very different obstacles to overcome than me, who grew up spending every summer in Corpus Christi, Texas and heard Selena on the radio incessantly after she died. To begin thinking in an antiracist way requires you to know your own context.

With that in mind, here is what I know about my own context now: I'm a transgender man. Although I will never really be a 广东人, I do identify as a 华人. My Mexican heritage primarily comes from Nuevo Leon, Zacatecas, and Tlaxcala. I'm still a no sabo kid, and I'm a dual US-Mexico citizen. I'm mixed. I'm a husband. I'm a cat dad. I'm a writer, a political scientist, an educator, and a sound artist.

All of these different things are what make this thesis so deeply personal for me. We each carry worlds within us that inform our creative choices. Our art is stronger and richer for existing in our personal contexts; there is no single objective standard we have to meet in order to call ourselves artists. Theatre brings together a great swath of people, from creative teams to audience members, each bringing our own contexts. Any antiracist framework thus proposed must begin here: the personal.

Ultimately, this thesis aims to create such an antiracist framework. As sound design touches so many fields, this thesis synthesizes antiracist frameworks and literature from each field to create something that fully describes the practice. It examines antiracist literature from performance studies, music, education, and technology to build a foundation upon which such a framework can be built. It incorporates current studies from the field of neuroscience to examine differences in language and hearing. It splits the design process into three steps—creating a design, building a design, and implementing a design—examines the implicit racism and bias built into each component, and discusses how we can implement antiracist strategies in specific ways to counter this. These steps include both the creative and more practical aspects of the design process such as examining our teammates' intersections, as even the practical aspects of a production are different for each—and as we don't design alone, but as a team with other designers, directors, actors, and crewmembers. By doing so, this thesis will create a framework that is relevant, implementable, and flexible.

ACADEMIC FOUNDATION

To fully understand where this framework sits in the practice of sound design, we must turn to antiracist literature in the various fields sound design touches. Perhaps the most obvious of these fields is performance studies; after all, this framework *is* specifically for *theatrical*

sound design. Another obvious field is music studies, as - as previously discussed - modern sound designers are often asked to compose. In order to do so, and to depict cultures other than their own in general, sound designers must educate themselves on cultures and their musical and sound practices. This research must then be constructed into a tangible design using technology such as digital audio workstations, synthesizers, and music notation software. Finally, sound designers must consider acoustics and neuropsychology when it comes to translating their freshly-created music and sound effects into an experience for an audience. All of this is done in collaboration with directors, design teams, production teams, and run crew.

American theatre has been tied up with race for as long as it has existed. In her book *Oriental, Black, and White: The Formation of Racial Habits in American Theater*, Josephine Lee notes that "[n]ineteenth- and early twentieth-century American theater served as both the point of origination for many [stereotypes] and as one of the most important cultural practices that helped ingrain racial fantasy into conventional perspective... racial stereotypes are not just distorted images misrepresenting real people but also experiences convincing live audiences of their reality and authenticity" (Lee 9). Lee characterizes this racism as "habitual," noting that racism exhibited on stage is not merely unconscious bias shining through, but actively performed and reinforced. Minstrels actively built their genre by stacking stereotypes regarding enslaved Africans' music, dances, "eccentricities," and bodies together, which then cemented audiences' expectations of the sort of characters they might see and the music they might hear in American theatre. Similarly, Orientalism in American theatre was actively built by discarding geographical and cultural differences "in favor of... associating the Orient with opulent excess, despotic power, magical objects, and fantasy" (Lee 9-11). These racial habits, Lee suggests, did not merely disappear with the decline of minstrelsy and Orientalism; rather, minstrelsy and

Orientalism mixed together and produced a musical and theatrical legacy that lives on today. This can be seen in songs such as "My Castle on the Nile," which has lyrics that simultaneously mock the singer's blackness and exaggerate the fantasy of exotic adventure and luxury, and *Tin Pan Alley*'s cross-racial number "The Sheik of Araby," whose exaggerated Orientalism serves to contrast "the comic and erotic racial meanings expressed through earlier moments of blackface minstrelsy" (Lee 2-5). Music in theatre is highly associated with stereotype, and performers and designers actively use it to reinforce, play with, and even mock racial habits.

In *Worldmaking: Race, Performance, and the Work of Creativity*, Dorinne Kondo similarly denies theatre as "springing fully formed from the artist's imagination" (Kondo 6); rather, she describes it as active work constructed using craft, effort, collaboration, theory, politics, and the examination of structural inequalities. Through examining race and its associated power dynamics, theatre serves to produce and circulate racial ideologies. These ideologies aren't blatantly stated, but rather manifest as power structures: when it's okay to laugh at something, who's allowed to be critiqued, even who the presumed audience is. Going further, Kondo challenges the idea that in order to study race in performance, one must necessarily separate themselves from the work, an observer rather than a participant; rather, Kondo states, "[t]he subject is inextricable from the structural" (Kondo 12). Our work as theatre-makers cannot be separated from the power structures we find ourselves in, and Kondo suggests it is our responsibility to avoid becoming passive observers and instead find ways "to remake worlds through engaged participation" (Kondo 8).

However, merely discussing race on stage is not enough. Kondo specifically examines *Avenue Q* and *The Book of Mormon*, noting that both shows rely on what she calls equal opportunity offense. *Avenue Q* portrays its people of color in stereotypical ways while conflating

individual prejudice with structural inequality in its number "Everyone's a Little Bit Racist", while *The Book of Mormon* relies on racist stereotypes to comically exaggerate the lifestyle differences between the Ugandan villagers and the Mormon missionaries from the Global North. The thing about theatre that makes this particularly egregious, Kondo argues, is the nature of theatre as a collaboration between audience and performers. Audiences shape actors' performances, create temporary communities with actors, and in some cases, even share physical space with actors. Due to its inherently physical and sensory nature, theatre has the potential to resonate with audiences far more strongly than a film or TV show, and due to its nature as live performance, even a show that's opened can change every night in response to actors' and audiences' feelings, thoughts, and reactions (Kondo 25-26). Performers, directors, and designers have the responsibility to start from a place of what Kondo calls "reparative mirroring", where minority audiences see not stereotypes, but accurate representations of themselves as human beings onstage.

But how do we, as sound designers, begin to approach depicting cultures we do not belong to? To answer this, we turn to ethnomusicology, which has long considered race and its relationship with and depiction in music studies. In his 1960 article "The Challenge of 'Bi-Musicality'", Mantle Hood examines what he calls "conditioned prejudices" in music education. When studying non-Western musical practices, Western-trained musicians bring with them preconceived notions regarding pitch, intervals, notations, rhythm, and performance structures. Just as one becomes bilingual not through continuous translation, but immersion and understanding, Hood suggests the best way to gain "bi-musicality" is not to filter non-Western musical practices through Western concepts such as notation, but to release oneself from these

conditioned prejudices and approach non-Western musical practices as they present themselves, on their own terms (Hood 56).

Hood states that the first step to gaining bi-musicality is to develop an ability to hear through "repeated exposure to listening and by singing" (Hood 56). While Western-trained musicians may assume they already know how to hear, Hood dismisses this as another conditioned prejudice: Western pitch does not translate into the world of microtonal inflections. Once a student learns to hear, Hood recommends using learning methods traditional to the chosen musical practice so the student can discover the validity of the practice's traditions for themself. These traditional learning methods are typically imitative, which is helpful for Western musicians who may not have the entire cultural context or linguistic skills associated with a practice. Of the three languages and styles of traditional song in Java and Bali, Hood notes, "[t]he student must imitate the proper shape of the mouth, the position of the tongue, the attitude of the head, the tension in neck muscles and even to a degree the revealing facial expressions which are an open window to the singer's unconscious muscular control" (Hood 58).

Once a musician is experienced with listening and imitation, Hood states that the final step in attaining bi-musicality is gaining the ability to improvise: this can be "consciously learned but can be artistically used only when the whole tradition has been assimilated" (Hood 58). The musical practices of other cultures can only be fully understood, Hood suggests, when one comes to understand the religions, customs, language, history, and context of the culture the musical practice is based in. The question remains, however: how far does a musician (or sound designer, in our case) have to go to accurately portray a musical practice? Hood answers this simply: as far as you need to, so long as your study is based in the culture and traditions that surround the practice (Hood 58). However, not every sound designer has access to or the time to

join, say, a Balinese gamelan group and become bodily involved in figuring out how the ensemble functions and performs. To figure out where to go from here, we turn to Kofi Agawu's *The African Imagination in Music*.

Africa, as Agawu notes, is an entire continent with an incredible internal complexity, and no individual "can be expected to be familiar with the entire... legacy of African music" (Agawu 5). Indeed, in studying African music, students often try to simplify that internal complexity by creating arbitrary categories based on colonialist understandings of the continent, separating practices by tribe or ethnicity or nation-state. This even applies to our understanding of what African music even is: making music "in Africa... is indexed by a variety of terms: we beat, shake, touch, and play; we say, recite, recollect, and sing; and we move, stir the body, look our way, and dance" (Agawu 3). To fully understand African music, Agawu suggests, one must simultaneously keep in mind Africa's staggering internal complexity while also understanding the deep and varied connections between the many different forms of music making present on the continent.

How do we begin making these connections, however? Here, Agawu points to archives. More recordings, he notes, have been made of Africa's indigenous music than of the indigenous music of anywhere else in the world (Agawu 3). As Hood suggested, Agawu first tells us to listen. Thousands of recordings of African music are available commercially or in public libraries; Agawu gives us a list and lets us know that "for every song, lament, dance drumming or play-song included here, literally thousands of alternatives exist" (Agawu 6). Unlike Hood, Agawu exhorts us not to think or analyze at first, but to simply listen and allow ourselves to react, whether it's with intrigue, surprise, or repulsion. Once we've digested a piece, then we can begin to analyze it on a second or third pass, considering its cultural context, information

regarding the performers and performances, and the music theory behind it. Most importantly, however, listen to a wide variety of African music:

> Start by listening—or better, dancing—to the drums, rattles, bells, and voices that combine in polyrhythmic alignment in the southern Ewe dance Agbadza, then follow that with an item from the Banda horn-orchestra repertory studied by Simha Arom, and you will be struck by overriding qualities of "ongoingness," perpetuity, and the difference-in-sameness of motion. Above all, you will encounter a compelling groove that resides at—but is not confined to—a deep level and threatens or disconcerts those who elect to be mere listeners rather than active participants. Listen, too, to the mesmerizing infinitude of Shona mbira music, with its cycles and circles, its looping of phrase beginnings and endings, and its potential for altering consciousness in those willing to let go. Start again with the word-borne music of Gambian and Malian griots and griottes, with its cool temporalities and unhurried accompaniment patterns that go over the same ground but at different ontological time points such that each repetition seems familiar and yet somehow different. Listen across the numerous gonje (one stringed fiddle) repertories of West Africa, in which repeating melodic archetypes ground the in-the-moment composition of embellishments and variations; follow that with masenqo repertories in Ethiopia for a similar yet ultimately different exploration and exploitation of minimality; and take in the thirteen-minute track of Fela Anikulakpo Kuti's masterpiece, Zombie, for a similarly unpressured creation of musical time by means of harmonic trajectories that spiral and embody sameness even as they support the nonsameness of melodic narrative and (eventually) Fela's biting verbal critique (Agawu 10)

How do we avoid appropriation, however? Agawu notes that "[a]cts of musical composition are unavoidably intertextual... [and], like knowledge, cannot belong to any one person" (Agawu 315). Every composer has their own cultural and musical context, and can acquire musical practices as one might acquire another language. But just as one needs to engage with the cultural context of a language to fully understand it, Agawu states it is impossible for a composer to act as if there is no context surrounding any given practice. To compose is to depend on and engage with a prior discourse. Agawu further suggests it is useful to consider music derived from traditional African music in terms of "degrees of appropriation": "[a]t one end of the spectrum are works that sound like transcriptions of African music... [i]n a middle category are works that incorporate one or two distinctive African elements within a

fundamentally non-African melodic-harmonic environment... at the far end are works that are informed by the spirit of African music and by the thinking behind it but refuse appropriation in any obvious material form" (Agawu 319). Different levels of attribution are necessary for these different degrees of appropriation. Within modern Western concepts of ownership, however, it becomes much trickier to properly ensure, for example, an ethnic group is credited and earns royalties for sampling their folk song; under capitalism, there is a dualistic framework of winner and loser of intellectual capital which "undercomplicates a set of transactions based on love, artistic passion, discovery, respect, and, finally, an internal artistic impulse" (Agawu 321). In using African music, a composer must ask themself, who really benefits from my use of African music? "Such discussions require carefully configured terms and a precise delineation of artistic aims, including a proper understanding of the aims of composition" (Agawu 321).

Indeed, Agawu has no single solution for us that solves appropriation. Agawu suggests a solution of that scope is impossible; rather, each use case must be carefully and individually considered by the composer. Regulations must be created to ensure artists receive their dues. In more ambiguous cases, courts can and should step in to ensure everyone is properly attributed and paid (Agawu 317). But Agawu still holds that the first step to properly respecting a practice is to simply listen.

Both Hood and Agawu agree learning about the cultural context of a musical practice is necessary to even begin to understand, much less compose for, the practice. But how do we learn about cultures, and how can we begin to understand the similarities and differences between them and our own contexts? In *Culturally Responsive Teaching and the Brain*, educator Zaretta Hammond synthesizes educational theory and neuroscience to answer these questions. "Culture..." she states, "is the way that every brain makes sense of the world. That is why

everyone, regardless of race or ethnicity, has a culture. Think of culture as software for the brain's hardware. The brain uses cultural information to turn everyday happenings into meaningful events" (Hammond 22). Hammond breaks culture into three operative levels: surface culture, made of observable and concrete elements such as food and music; shallow culture, made of unspoken rules and attitudes, and deep culture, made of tacit knowledge and unconscious assumptions (also called schema). Hammond likens the brain's experience of culture to a tree in a forest: inherently based in and adding to an ecosystem; growing out of roots of deep culture such as our relationships to nature, spirituality, and competition; building a trunk and branches of shallow culture such as concepts of time, ways of handling emotion, and styles of non-verbal communication; and eventually bearing observable fruit of surface culture such as food and music. In this way, Hammond suggests, music grows out of worldview, core beliefs, and group values; to understand surface culture, we must understand at some level the beliefs that undergird it (Hammond 23-25).

But how does a sound designer quickly gain a moderately deep understanding of any given culture? Hammond turns to cultural archetypes: universal patterns found across cultures. In particular, she hones in on two scales: individualism versus collectivism and oral traditions versus written traditions. Individualistic cultures focus on independence, individual achievement, competition, and analysis; learning happens through individual study and reading. Collectivist cultures focus on interdependence, group dynamics and success, collaboration, and relationships; learning happens through group interactions and dialogue. Similarly, a written tradition tends to be more individualistic; people form their own relationships with books and music. In oral traditions, cultures encode their knowledge into music, poetry, and dance; the relationships between teacher and student or performer and listener become central to the transmission of

information. Although these are generalizations, Hammond suggests these archetypes are a way to gain a foothold in our understanding of an unfamiliar culture (Hammond 25-28).

Going further, we must gain an understanding of the sociopolitical context surrounding the culture, which Hammond breaks into two parts: implicit racial biases and structural racialization. Neither of these require overt racism to maintain them; rather, these take the form of "seemingly benign institutional practices or structures that reduce and limit opportunities for people of color, poor people, and immigrants" (Hammond 29). Hammond even states that implicit bias is *not* implicit racism; our biases are rooted in our brain's efforts to process large amounts of incoming data by categorizing information into stereotypes. Being spawned from a normal brain activity, these biases often go unnoticed and unchecked. Similarly, structural racialization does not *intend* to be racist; rather, "supposedly well-intended policies actually create a negative cumulative and reinforcing effect that supports, rather than dismantles, the status quo within institutions" (Hammond 30). This happens in all sectors of society, affecting everything from housing, to healthcare, to education, to work opportunities. Culture does not grow in a vacuum, but takes root in a society; and so to understand its fruits, we must necessarily understand the economic, educational, and lifestyle opportunities available to its people.

So how *does* culture affect music and sound? In their article "Tone Language Speakers and Musicians Share Enhanced Perceptual and Cognitive Abilities for Musical Pitch: Evidence for Bidirectionality between the Domains of Language and Music", Gavin Bidelman, Stefanie Hutka, and Sylvain Moreno note that music and language "are intimately coupled such that experience/training in one domain can influence processing required in the other domain" (Bidelman et al.). While many studies have shown developing musicianship helps one develop linguistic skills, they note that the reverse has not been well-studied. While one might assume the

transfer of skill from language to music might be weak because language is less precise than music in terms of pitch, Bidelman et. al. suggest native speakers of tonal languages, where pitch is strongly linked to meaning, would have an advantage in their ability to listen to and parse music. To study this, Bidelman et al. recruited English-speaking musicians, English-speaking nonmusicians, and native Cantonese-speaking nonmusicians and tested each group on pitch processing speed, pitch memory, and melody discrimination. Cantonese participants "outperformed their English-speaking nonmusician counterparts on nearly all measures of pitch and music perception, suggesting that tone language speakers have an advantage in processing the pitch information required for music listening" (Bidelman et al.). Interestingly, the Cantonese nonmusicians performed similarly to the English-speaking musicians, suggesting language and music operate as a continuum where resources are shared depending on "how commensurate the acoustic demands of the listening task in question are with the cues found in the listener's domain of expertise" (Bidelman et al.). In this regard, our native language changes the very way we listen.

With all of this in mind, how, then, do we approach creating an antiracist framework that somehow encompasses the sheer variety of practices in sound design? This thesis splits the design process into three constituent parts: creating a design, referring to the process of interpreting a script and conceptualizing a sound design in collaboration with a creative team; processing a design, referring to the activities we engage in and interfaces we use to produce music, sound effects, and recordings as part of an overall sound design; and implementing a design, referring to everything contained in the load-in and tech process. Each of these parts is further broken down into a series of questions designed to encourage antiracist thinking; these questions are elaborated upon to provide context and deepen a designer's examination and

understanding of their context within the contexts of their creative team, their audience, and the production as a whole.

Why center this framework around questions? As stated in the introduction, sound design is less an academic field and more a practice. While creating this framework, I struggled to pin down specific guidelines, given the myriad of approaches a designer can take toward a production (not to mention the likely-different approaches they might take with the next production!). Due to her experiences as a professor and in curating educational sessions for USITT, I spoke with Carolina Perez, Assistant Professor of Music at the University of North Carolina Asheville and Programming Commissioner of the USITT Sound Commission, to figure out what such a guideline might even look like. Perez suggested moving away from a prescriptive mentality; what might be more helpful for designers could be a series of questions which encourage a designer to reflect on their work, its contexts, and their teammates' and their own contexts (Perez). With this in mind, this framework encourages a designer to build their own antiracist practice throughout the design process by discovering their own answers to each question.

Reviewing the framework as a whole, however, one might ask: what makes this specifically antiracist as compared to a typical design process? After all, shouldn't a sound designer be doing research on their topics, learning how to compose in different ways, and supporting their teams anyway? To that, I say yes. *Yes*, a sound designer should be doing research on their topics, learning how to compose in different ways, and supporting their teams. The academic foundation of this thesis is designed to support this research process by providing an antiracist background against which a sound designer can build an understanding of their research topics. The framework builds upon this by actively working through the design process

with the designer: with this foundation established, its questions encourage a sound designer to dig deeply and not only ask themselves *how* they can be antiracist, but *what meaning they derive from doing so*. After all, we design with the intent to speak with our audiences. Designers can turn to stereotypes to quickly communicate the presence of a different culture; but by learning how these different cultures communicate using sounds and musics, we can more effectively create *messages of our own* using these sounds and musics.

CREATING A DESIGN

At this initial stage, designers decide their approach to their productions and sketch out a rough initial design to serve as a blueprint for the rest of their design process. Of the entire process of sound design, this initial act of imagining is the most theoretical. Sound designers can find themselves considering dramaturgy, economics, and musicology, among other subjects; not to mention trying to figure out how to incorporate the ideas of directors and other designers into their initial design. To begin the creative process, a designer must first hash out several initial questions with their creative and production teams:

1. What is my budget?

2. What is the context of this production?

3. What is the scope of the production, and what are my deliverables?

To learn more about how antiracism relates to this foundational part of the process, I interviewed Zahida Sherman, a lecturer in antiracism at the David Geffen School of Drama at Yale University. Professor Sherman, who teaches an antiracism class specifically for theatrical designers, assisted me in breaking down these questions.

First, **budget**. There is often a gulf between the total amount budgeted for a project versus the total amount budgeted toward sound. A sound designer with a large budget may be

able to hire a consultant or musician; a sound designer with a medium budget may be able to purchase instruments or audio plugins; a sound designer with a small budget may have to get by with public domain or Creative Commons-licensed sound effects. Budgetary size can also change how much time, effort, and research a sound designer can afford to put toward a project. A sound designer may have to take on multiple projects simultaneously to make ends meet; give them a larger budget and they may be able to solely focus on a single project.

Second, **context**. One might initially think of textual context: what culture is the production trying to portray, and in what context is it portrayed in the script? Which cultures are the characters from? Is there intercultural interaction or conflict? Is it peripheral to the plot or a central focus, as in Christopher Chen's *Passage*? Context also includes real life contexts such as venue location—is the venue in a neighborhood or downtown?—and demographics—who is likely to see this production? These real life contexts, in particular, are considerations which a designer may emphasize or deemphasize as they see fit; some designers may strive for a universal experience which audience members of any demographic can enjoy and some may design in very specific ways for very specific groups. I designed a production of *Orion and the Goatman*, set in rural Georgia, in 2022, and met the playwright on our opening night. I had used sounds from Alabama that had been specifically recorded for my design (thanks again, Dad), and the instant I met him, the playwright raved about their authenticity. Most of the audience may not have noticed, but *he* did. More on authenticity later.

Finally, **scope and deliverables**. Some directors, as I discovered while working on a production of *Gloria*, only want sound involved as it is explicitly described in the text; others, like a director I worked with on *A Doll's House*, want specifically-designed, expressionistic soundscapes to help an actor explore their personal, extratextual interpretation of a character as

they develop through a show. I often find my list of deliverables changes (usually growing) as I get deeper into the design process, so this is something that must be considered and reconsidered. Scope further affects what deliverables look like: a designer must factor in venue size, the size of their design and production teams, the presence (or lack) of a dramaturg, and a director's desired level of involvement for sound. A live orchestra may be a questionable choice for a black box; an offstage voice may have to be prerecorded or amplified in a proscenium theater. Similarly, an intricate system of Arduino-controlled motion and proximity sensors and corresponding speakers may be asking a little too much of a small production team with a short load-in time.

Each of these initial considerations plays an outsized role in answering the next set of questions, where we begin to explore antiracism's potential involvement in the design process far more deeply:

4. What is my context as it relates to this production, and what perspectives do my teammates bring?

5. What is authenticity as it relates to my design?

6. How do I learn more about the communities we're portraying and addressing?

7. How do I bring these things together?

Now to reflect on **our own contexts**. A sound designer, as Agawu suggested, must consider their own context and relationship to the work. Are they a member of the community the work portrays? If not, what is their relationship with this community? How much background knowledge of this culture, its context, and their music do they bring? It is here Hammond's strategy to break down implicit biases becomes useful. Hammond suggests beginning with an intention; for sound designers, this may be to faithfully portray a culture, to compose in a genre they've never explored, or simply to make something that sounds good. Whatever it is,

Hammond next suggests examining our own cultural identities, or "making the familiar strange" (Hammond 55). This can be accomplished by identifying our cultural frames of reference (What are our norms? What do we consider music?), mapping our cultural reference points (How did our families identify ethnically? What economic status are we? How did our families come to be in our country? What are our communities' relationship with time?), and identifying our triggers (What do we find dangerous or threatening? What makes us dismiss others?) (Hammond 56-66). After considering our cultural identities, Hammond exhorts us to then reflect on our feelings as we experience different cultures through a strategy called affect labeling. By identifying our emotional reactions to different elements of cultures, "you put yourself in the role of observer rather than actor. It is easier to make thoughtful choices about what to do next if you can decouple yourself from being the actor" (Hammond 67).

It is also vital to listen to the contexts of our **teammates**. I sat down with Devon Parikh, a senior undergraduate sound designer at Utah Valley University, to discuss his experiences as a BIPOC designer, particularly as a member of a design team. Parikh recounted an experience he had while designing a production of *Lucky Stiff*:

> [There's] a Cajun-American reference that is, frankly, incredibly racist... and pretty much everyone in the production team agreed, "Oh, that's bad. Let's not do that." Then our director, two or three weeks later in a different production meeting, said, "Let's revisit this. Can we talk about this?" ... [S]he brought up her points and for someone who doesn't have to deal with that stuff, I could see why they made sense... I was the only person of color on the team... This was also my first design as a full designer. So I was super nervous, and I was like, "Can I say something? Uh, as a person of color..." and I made sure to throw that in because that added the gravity that my student title didn't allow me. "As a person of color, this is racist and if I saw someone doing this with my culture, I would be furious..." After I said that, pretty much everyone was like, "Yeah, okay, we're gonna not do that. We're gonna not do that racist thing onstage, we're gonna just cut it..." [When designing a period piece,] we need to be extra careful, because there are things we don't necessarily understand from a time period where there were a lot of sources of racism coming through that were trying to paint people of color in a bad light (Parikh).

After this experience, Parikh helped establish a student-run BIPOC consulting committee at Utah Valley University's School of the Arts. This committee, which consists of BIPOC actors, MTs, two designers (Parikh himself and a lighting designer), dance majors, art majors, and music majors, is consulted whenever there is a show, exhibit, or dance "that involve[s] a lot of things from a culture that one or many of us [are] a part of" (Parikh). During these consultations, the committee shares background information, educational resources, and practices specific to the culture being depicted. This enables Utah Valley University faculty and students the opportunity to learn directly from members of these cultures and, in doing so, begin building their own antiracist practices.

Next, **authenticity**. There are a number of small considerations lurking here; to learn more about these, I interviewed Dr. Alexa Woloshyn, a professor of musicology at Carnegie Mellon University. With initial designs, it can be tempting to do some quick research and slap together a design in order to have something to present to one's creative team; Dr. Woloshyn was quick to note that when it comes to musical practices, details matter. Saying "American music" might conjure up a whole range of musics, from folk to jazz to rock and roll; therefore, it is necessary first to pin down the dramaturgical context of a production's music and soundscape. This can be most easily accomplished in collaboration with the production's dramaturg; lacking a dramaturg, a close reading of the text may be necessary. This research is also necessary to ensure one doesn't rely on stereotypes or shortcuts. Dr. Woloshyn specifically noted it can be tempting to approach design through an exoticized lens that isn't trying to represent reality, but rather an idea of a place tailored to the audience (Woloshyn).

How do we learn more about other cultures in a sonic context, then? Dr. Woloshyn first suggested hiring musicians or consultants if the budget allows; if not, to do as Agawu suggests

and listen to real music from the target practice. Additionally, Dr. Woloshyn further stated it is important to identify stereotypical tropes associated with the target practice, specifically citing the tropes of the lone flute in Native American music and harmonies of fifths in Asian music. When speaking to Parikh, he concurred; in his own design practice, he makes it a point to seek out at least two primary sources from real practitioners to ensure he is accurately using sounds, music, and techniques from a depicted culture.

Finally, we bring these things together. But how? To learn more about this, I spoke with Professor Soledad Sanchez Valdez, Professor of Scenic Design at University of Alabama. In our discussion, Sanchez noted theatrical design is always interpretive; designers never begin from zero, but grow their design from a seed—typically a script, or sometimes an idea from a director. Thus, a design for a show which portrays a particular culture is necessarily the designer's and creative team's *interpretation of* that culture. According to Sanchez, stereotypes serve as a shortcut to understanding: without experiences with or study of a depicted culture, a designer may find themselves turning to stereotypes to help audiences understand which culture they are depicting. To combat this, Sanchez suggested approaching a design as *transformative*. First, we examine the text and listen to our teammates' ideas. Then, we learn about the culture or subject we're depicting using primary sources. Finally, and <u>most crucially</u>, we draw upon our own *personal* understandings and experiences and synthesize these with the text, our teammates' ideas, and our study of the subject into a coherent design. What does that mean? One might draw upon a personal experience of a fraught relationship to help them depict Nora and Torvald's relationship in *A Doll's House* or a personal experience with racism to help them depict the intercultural struggle of *Passage*. Even if a designer doesn't have any personal experiences with the subject of a play, chances are they know someone who does—their parents, their friends,

their significant other. This use of our own experiences, Sanchez suggested, helps our designs come across authentically to audience members who may also have experiences with these things.

BUILDING A DESIGN

Building a design, in this framework, refers to the activities we engage in and interfaces we use to produce music, sound effects, and recordings as part of an overall sound design. This section will discuss the choices a designer can make in the building process, where a designer might run into implicit bias, and several ideas for combating this implicit bias.

1. What processes best fit my goals?

2. Do my current processes steer me toward a certain perspective?

3. What am I doing to place my deliverables in context?

4. How can I build a system which best fits the context of my deliverables?

When beginning to build a design, one of the most important choices a sound designer can make is which **processes** to use. Depending on the production's budget, scope of the deliverables, and their own artistic process, a sound designer may make use of several different tools. All tools have their places; the question a sound designer must ask themself is if they are using the *right* tools for the situation they're in.

In her book *Race After Technology*, Ruha Benjamin states that "things dubbed 'just ordinary' are also cultural, as they embody values, beliefs, and narratives… *new technologies* [can] *reflect and reproduce existing inequities but* [can be] *promoted and perceived as more objective and progressive than the discriminatory systems of a previous era*" (Benjamin 19-21). Technology, she notes, is created to solve problems, but "even just deciding *what problem* needs solving requires a host of judgements... [thus,] tech designers encode judgements into technical

systems but claim that the racist results of their designs are entirely exterior to the encoding process" (Benjamin 27-28). With this in mind, an antiracist sound designer must ensure their processes are well-fitted to the results they seek. Alternately phrased (and perhaps the only prescription you'll find in this framework), an antiracist sound designer should seek diverse ways of building designs. Let's look at a few tools, examine Benjamin's "encoded judgements", and see how we might diversify our toolset.

One of the most well-known tools of the modern sound designer is the Digital Audio Workstation (DAW). These programs are incredibly versatile: one can record, compose, and edit nearly any sort of audio using them, though like a Swiss Army knife, they may not be the best tool for every job. Examples of DAWs include Logic Pro, Ableton Live, Reaper, and Protools. As many of these programs are free, rentable for a low price, or something a sound designer might already own, a sound designer (particularly one in the beginning of their career) might find themselves turning to these programs by default when figuring out how to build a design. As I stated previously, these programs *are* incredibly useful for a variety of tasks, but our use of them shouldn't be by default; rather, these programs should be *deliberately chosen* as the proper tools for a given task.

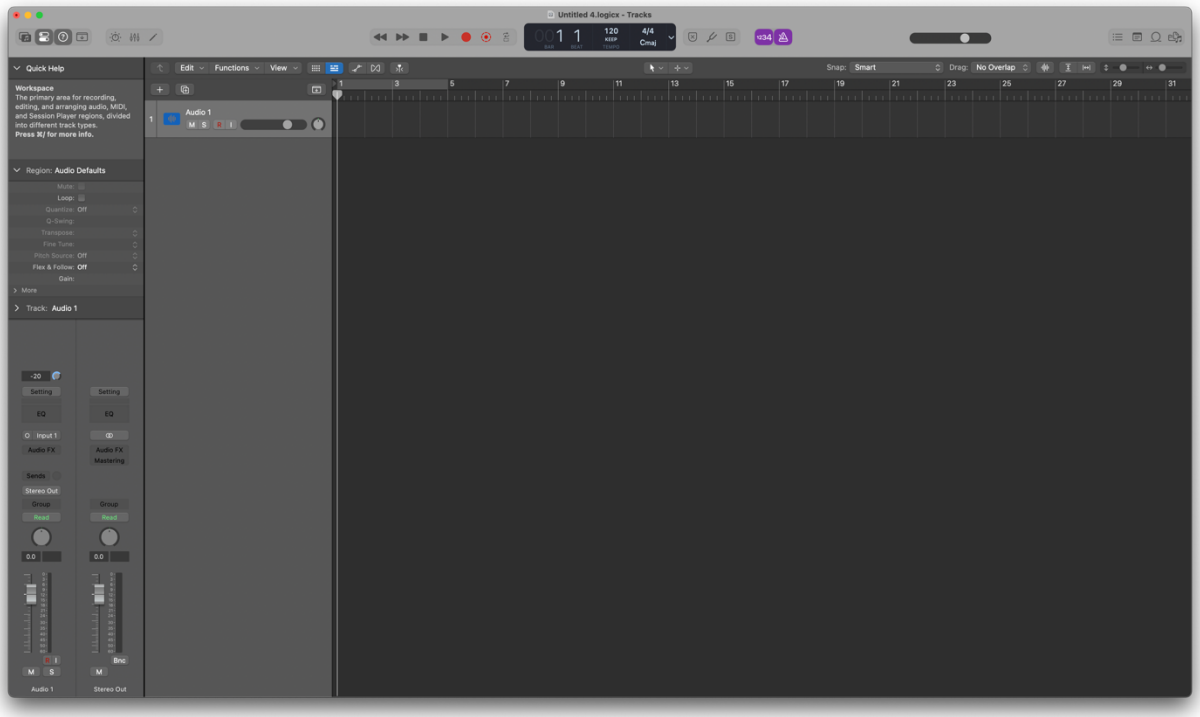

Figure 3.1. Logic Pro’s default interface.

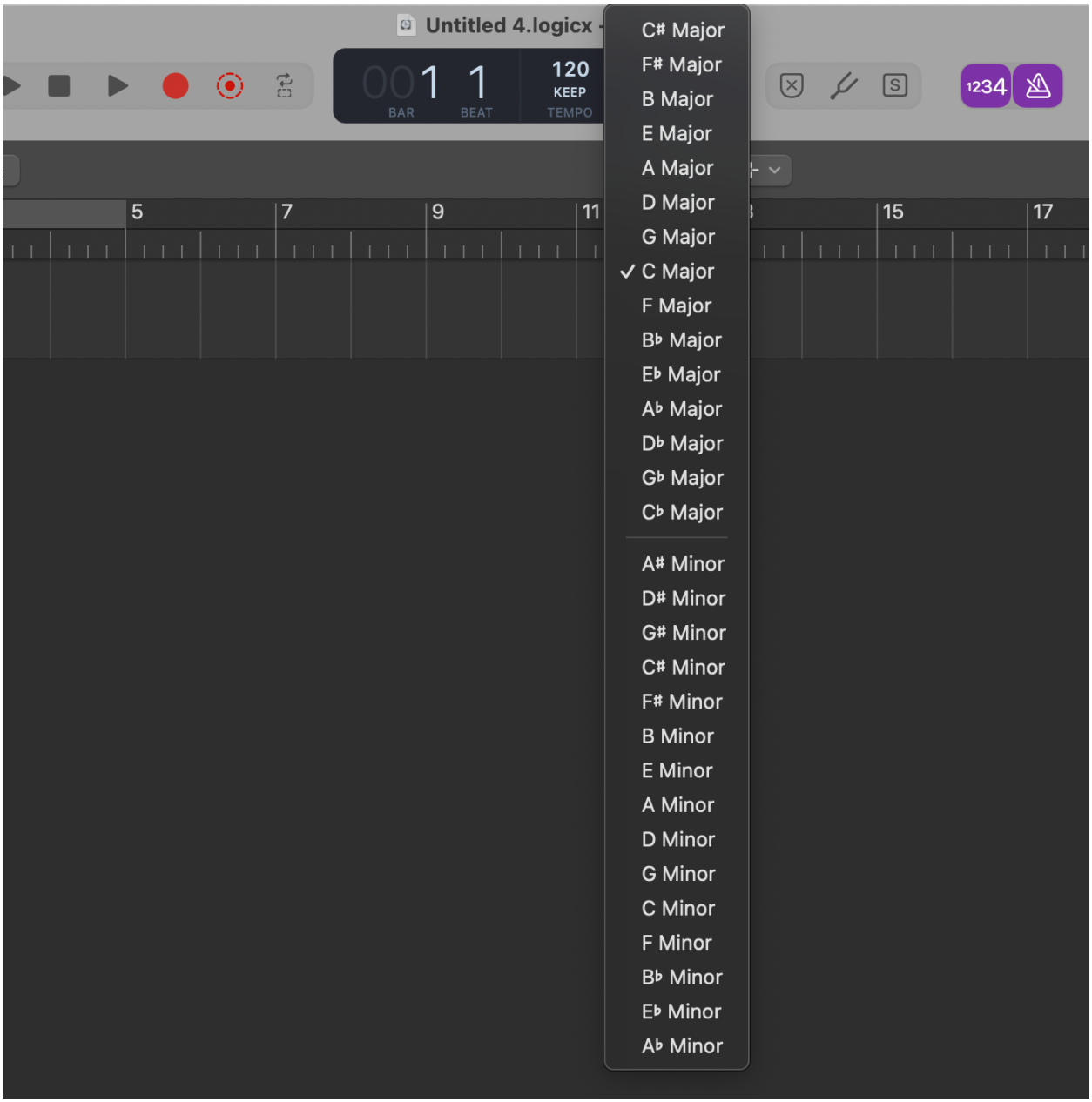

Figure 3.2. A dropdown menu in Logic Pro allowing one to select various keys such as C# Major, F Minor, etc.

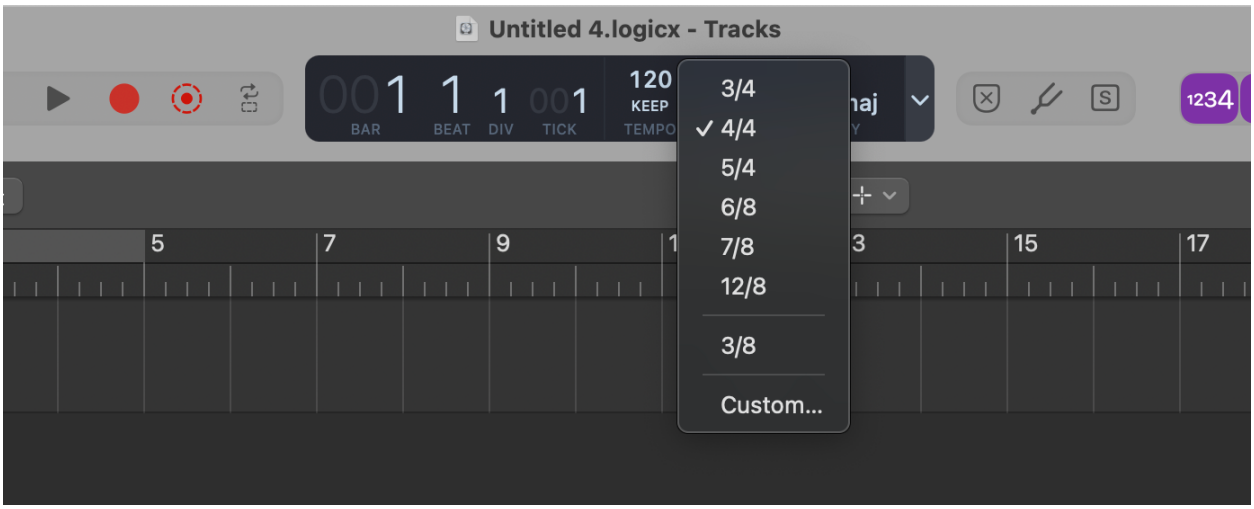

Figure 3.3. A dropdown menu in Logic Pro allowing one to select time signatures such as 3/4, 4/4, etc.

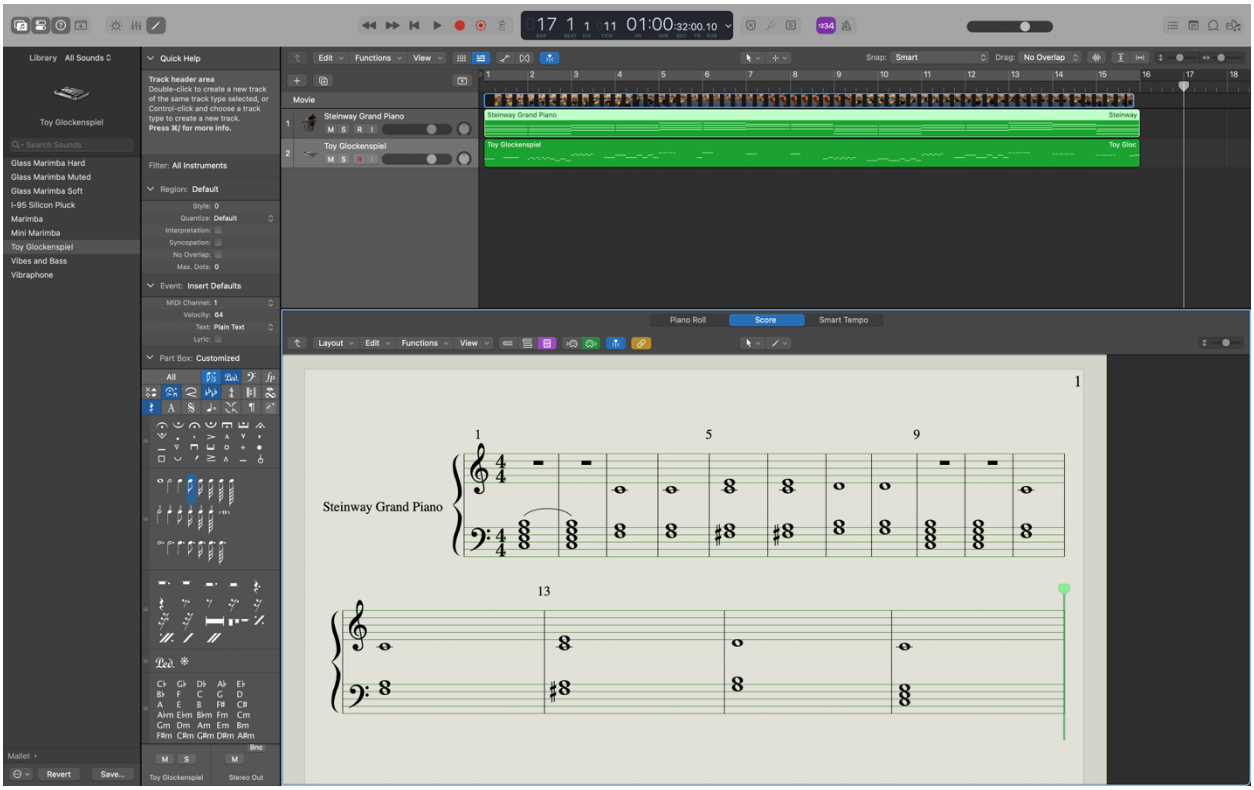

Figure 3.4. Logic Pro's music notation interface, showing a Euroamerican style music staff and various associated options such as note length and rests. Above the music staff, Logic Pro shows the user how notes placed on the staff translate to MIDI for each instrument.

What does this mean? Several of these programs have judgements encoded into them. What tools might a sound designer need? In Figure 3.1, we are presented with Logic Pro's

default interface. In designing this interface, Apple's designers and engineers have made certain predictions about what tools you may need—as in Figures 3.2 and 3.3, where we see Logic Pro has built-in time signatures and keys by default. Very useful, as is the built-in music staff in Figure 3.4! But these all correspond to Euroamerican (or Western) music; by using these, a sound designer may find themselves having to *translate* musics that don't use Euroamerican systems of pitch or notation into these terms. By doing so, we lose some of the cultural context that surrounds different forms of music; for how can we hope to capture a Carnatic raga and everything it means to a musician who may have studied this raga and this raga *alone* for decades when we couch everything in Euroamerican terminology?

Throughout the design process, then, we must necessarily ask ourselves *which* problems we are trying to solve and, rather than asking ourselves how we can use our current tools to solve these problems, consider which tools are *built* to solve our problems. If we are implementing music from a specific practice, it's worth considering which tools this music's practitioners use, and especially which tools they have access to based on the size of their budget. This can help us figure out how to scale our implementation based on our own budgets.

We must also ask ourselves how to place deliverables in **context**, particularly as we begin to create a **system**. Systems, are of course, highly dependent on both venue size and direction: ensuring equal SPL in every seat suddenly matters a lot more when designing in a Broadway house versus an intimate black box, and audio may be spatialized or not. Despite this wide variance, though, it's important for us to consider what antiracist practices may look like.

As we finish composing music, we often bounce said music down to stems so that, during the load-in and tech process, we can mix in the venue. As we begin to consider how to mix our content, we must account for cultural differences in a mix such as where an instrument is

physically placed in an ensemble, which instruments are emphasized in a mix, and even what is considered an instrument versus what is considered a sound effect. Similarly, as we build our system, we must consider *why* we are placing speakers the way we are. Which problems are we solving, and why are *these* the problems to solve?

IMPLEMENTING A DESIGN

Implementing a design, in this framework, refers to everything contained in the load-in and tech process. While a sound designer's involvement with this part of the process may be more or less depending on the type and scale of production they're working on, it is imperative to discuss this part of the process, as this is where a designer integrates their work with other areas to create a final product. Theatre is not done in isolation; becoming an antiracist sound theatrical designer must not stop at our deliverables, but must necessarily extend to actively practicing antiracism with teammates and collaborators to ensure an inclusive, equitable process where everyone feels heard and seen as they wish to be. While this section may dip into the realm of accessibility, I would argue that maintaining accessibility is a necessary part of becoming an antiracist sound designer: what are we doing if not ensuring an equitable workplace for everyone?

1. What power dynamics are present in my team?

2. What role do minority status and intersections play in these power dynamics?

3. How can I work with my team to ensure all members feel heard and supported?

4. What am I doing to ensure actor comfort and safety?

So how do we do this? I spoke to Aimeé Mangual Pagán, a production coordinator with NETworks, to learn more about **power dynamics** backstage. In our interview, Mangual Pagán related that between people on the tour's team traveling and living together and the revolving

door that is a constantly-changing local team as the tour travels, touring is full of complex power dynamics. Venues such as the Benedum Theater here in Pittsburgh typically have an established team in place with established dynamics which, when a tour is in town, share their knowledge about the venue with the tour's team. As such, Mangual Pagán stated, it can be difficult to speak up when, for instance, a local A1 has one way they mix and no one on the local team sees a problem with it. Different accents and vernaculars, she noted, each have different dictions and rhythms. With these come different ways of EQing a mic and, for a sound designer, perhaps different ways of using music or sound effects to emphasize what an actor is saying. Of course, it's an actor's responsibility to develop good diction in that accent, whatever that looks like; however, the local sound team must work with the tour and the actor to provide a complete solution for their reinforcement needs. A sound designer must necessarily take the power differences between these various teams and team members into account and consider what their role is, who they are in charge of, and how they can speak up.

Minority status and **intersectionality** further complicate these dynamics. Mangual Pagán, who is Puerto Rican, stated she had faced issues where coworkers had repeatedly mispronounced or refused to learn the correct pronunciation of her first name, pronouncing "Aimeé" as "Amy". Mangual Pagán noted she had been forced to Americanize the correct pronunciation of her first name to get coworkers to pronounce it somewhat correctly. Coworkers additionally often assume Mangual to be a middle name and Pagán to be her last name, despite Mangual Pagán stating otherwise. While these may seem to be small things, our line of work centers around working in teams; it behooves us to do something as basic as learn the correct pronunciation or structure of a teammate's name.

Additionally, we *must* consider the different sets of issues different teammates may be facing due to their minority status or intersections to understand how to best **support** them. Mangual Pagán related an incident where a male coworker sent an email on her behalf. As a woman of color, Mangual Pagán is particularly sensitive to coming across "bitchy" or "hysterical"; these are words that have been weaponized against women of color in particular to undercut their authority. In every piece of communication, she carefully considers her tone and message to ensure people take her seriously as a coworker and manager. During a tour, however, a coworker took it upon himself to send an email on her behalf without having considered these things; Mangual Pagán stated that after this email was sent, she had coworkers approach her to ask if she was feeling okay or if she needed to take some time to herself. This email, she noted, would have been seen as just a normal bit of complaining had it been sent under this coworker's name; under hers, however, it was seen as perhaps the beginnings of a breakdown. Of course, we shouldn't send emails on anyone's behalf without their explicit permission and full knowledge of the contents, but when working in teams, we should strive to be aware of the different supports different team members may need.

Mangual Pagán also made it clear that as sound designers, we have a responsibility to ensure the comfort and safety of our actors. For sound designers, this can mean several things. One might discuss mic placement with a director and choreographer to ensure actors don't get their feet tangled in a cable, particularly if an actor is dancing *with* said wired mic. We might also consider monitor placement to ensure actors can continue to hear music as they dance across the stage, or even consider where we place a speaker to either ensure an actor hears a cue (e.g. a door knock) or *doesn't* (as we wouldn't want a gunshot to go off right in an actor's ear). In

productions where actors have wireless mics, we should match mic colors to actors' skin tones and paint where there's a mismatch.

CONCLUSION

I first conceived of this thesis in late 2023, a year before Donald Trump was reelected. At the time, I saw it as a response to my experiences being a stranger in a strange land. People often ask how different it is here in Pennsylvania compared to Texas; I like to tell them I've never felt so exotic in my whole life. I'll never forget the stares my mother received helping me buy furniture for my new apartment at the Pittsburgh IKEA, nor the time an Uber driver here looked at my grandmother in the rearview mirror and asked if she was "Abuela" and if she wanted to know where all the Mexicans live here. He seemed so excited, too, like he genuinely thought he was being helpful. Hearing him, I suddenly felt like I was from another species. Where I come from, Mexicans are just people. I wondered: could I create a framework that steered people away from exoticization and toward understanding that people of color are, first and foremost, *people*, whose music and sounds and cultural needs are just as worthy of consideration and respect as anyone else's?

As Trump began his campaign of fear and terror against immigrants and minority US citizens, however, I started to feel chilled. I found myself thinking less and less of my relationship with society and more and more about keeping my small family safe from society. I'm a transgender mixed-race man from Texas married to a transmasculine Tejano from Texas. I didn't want to make the target on my back any larger than it had to be, and with Trump's ban on DEI initiatives and the word "antiracist" in its title, my thesis suddenly seemed a great way to do so.

I attended USITT in early March of this year as a participant in the Gateway Program. As I mingled with the other participants—all either undergrads or freshly-graduated—I began to think about the students I'd left behind in Texas. Before attending Carnegie Mellon University, I worked at a Title I middle school in the Dallas area; over 40% of its students were impoverished, and half of the student body was Hispanic. I interacted with homeless, hungry, queer, and/or suicidal students on a daily basis. Several times, I found myself in the position of having to report discussions I'd had with students to counselors and behavioral teachers, such as the time a student who'd taken a liking to me told me he was going to bring a gun to school the next day. After working with students who faced such life-or-death problems every single day, many of my classmates seemed like they came from a completely different world. One day, while walking to the bus stop, I overheard a student bemoan how broke she was—that she only had $20,000 in her savings, and how could she possibly make that stretch to the end of the semester? I wanted to laugh. I wanted to cry. It seemed ridiculous that I was here, studying *theatre* of all things, living in a neighborhood which was overrun by Pride flags every June while I knew there was a trans boy in the Texas foster system being personally affected by the new anti-trans bills steadily advancing through the Texas Legislature. I knew a trans girl who sang with the tenor-bass choir whose access to HRT was being limited. I knew students whose parents were undocumented who were afraid of their parents being taken from them. I knew students who hated the weekends because coming to school meant *they would eat that day*— whose aid like SNAP and WIC was being slashed by the new administration. All of these students could have their lives changed by $20,000 and completely upended by the amount I was taking out in loans to do a master's in theatre. What was the point of this? I couldn't put it together.

The Gateway Program offered students and early career professionals from marginalized communities the opportunity to attend the annual USITT conference, learn more about the logistics of life as a theatrical designer, meet other professionals, and—perhaps most importantly—it pairs you with a personal mentor in the field. My mentor, the wonderful Mike Hooker, Professor of Sound Design at University of California-Irvine, was extremely open with me regarding his experiences and difficulties as a mixed-race gay Korean man in a field historically dominated by cisgender, straight white men. Hearing his lived experiences, I was able to better understand my own experiences in the field as a mixed-race queer trans man. Getting to meet other designers of color at USITT made this thesis, which I had been struggling to find the importance of, suddenly seem like one of the most important things I could possibly work on.

Certainly, sound design is, by virtue of its nature, a form of adaptation. We can't expect our audiences to hear music we've carefully crafted and immediately understand the intricacies of the Carnatic raga system; but we learn about these things that we might understand how to better manipulate and play with them. In theatre, all of our work—directors, designers, crew, and actors—is entirely for the benefit of the audience. USITT, and all of the wonderful people I met there, reminded me of that; and I thought of all of the queer Hispanic students I worked with, who looked at me and saw a future for their own selves, and I understood that the point of my work in design and this thesis is to make theatre a more inclusive place for these students so they *can* see themselves—and a future for themselves.

When I returned to school after USITT, I held a workshop to test out this framework. Participants were given the outline of the framework, walked through each of the questions, and asked to respond to each with a particular production they had worked on in mind. Given the fact

that this framework is meant to be worked through over the course of a design process, rather than reflected on after the fact, I found the results quite interesting. Participants seemed to resonate most with the questions from Step 1 - Creating a Design, giving thought-through, in-depth answers with multiple bullet points. As the questions associated with Step 1 are perhaps the most theoretical—or, put another way, the least based in the day-to-day realities of the design process—I found this unsurprising. Similarly, participants struggled most with the questions from Step 3 - Implementing a Design: while some were able to remember certain similarities or differences (e.g. "we were all CMU students," or "there was only one designer I didn't already know"), others were unable to recall much about their teammates after the fact except that they worked well with them. This is precisely why this framework is meant to be worked through over the course of a design process; as different brains store memories differently, working through this framework retrospectively may make it less effective. While I currently hope to turn this framework into a larger workshop at next year's USITT, I plan to work through this framework during my own design processes and use that as an example of the framework in action. I hope to tinker with the workshop to further emphasize potential implementations and encourage others to consider what their own antiracist processes might look like. I would be greatly interested in seeing others' results.

Here is how the entire framework fits together:

1) CREATING A DESIGN
    a) Basic considerations
        i) What is my budget?
        ii) What is the context of this production?
        iii) What is the scope of the production, and what are my deliverables?
    b) Specific considerations
        i) What is my personal context?
        ii) What perspectives do my teammates bring?
        iii) Which communities are we addressing, and how might I learn about them?
2) BUILDING A DESIGN
    a) What processes best fit my budget and goals?
    b) Do my current processes steer me toward a certain perspective?
    c) What am I doing to place my deliverables in context?
    d) How can I build a system which best fits the context of my deliverables?
3) IMPLEMENTING A DESIGN
    a) What power dynamics are present in my team?
    b) What role do intersections play in these power dynamics?
    c) How can I work with my team to ensure all members feel heard and supported?
    d) What am I doing to ensure actor comfort and safety?

Works Cited

Agawu, V. Kofi (Victor Kofi). The African Imagination in Music. New York, NY: Oxford University Press, 2016. Print.

Asaridou, Salomi S, and James M McQueen. "Speech and music shape the listening brain: evidence for shared domain-general mechanisms." Frontiers in psychology vol. 4 321. 4 Jun. 2013, doi:10.3389/fpsyg.2013.00321

Benjamin, Ruha. *Race after Technology : Abolitionist Tools for the New Jim Code*. Cambridge, UK ; Polity, 2019. Print.

Bidelman, Gavin M et al. "Tone language speakers and musicians share enhanced perceptual and cognitive abilities for musical pitch: evidence for bidirectionality between the domains of language and music." *PloS one* vol. 8,4 (2013): e60676. doi:10.1371/journal.pone.0060676

Chen, Christopher. *Passage*. Dramatists Play Service, 2019.

Hammond, Zaretta. *Culturally Responsive Teaching and the Brain : Promoting Authentic Engagement and Rigor among Culturally and Linguistically Diverse Students*. Thousand Oaks, California: Corwin, a SAGE Company, 2015. Print.

Ibsen, Henrik. *A Doll's House*. Adapted by Jasmine Roth, 2023.

Jacobs-Jenkins, Brandon. *Gloria*. Dramatists Play Service, 2018.

LaReau, Brandon. "Soliman's Legacy: What Mozart Has to Teach Us about Race in Musical Theatre." *Studies in musical theatre* 15.3 (2021): 241–248. Web.

Lee, Josephine. *Oriental, Black, and White: The Formation of Racial Habits in American Theater*. University of North Carolina Press, 2022. JSTOR, http://www.jstor.org/stable/10.5149/9781469669632_lee. Accessed 15 Apr. 2024.

Kondo, Dorinne. Worldmaking: Race, Performance, and the Work of Creativity, New York, USA: Duke University Press, 2018. https://doi.org/10.1515/9781478002420

Mangual Pagán, Aimeé. Zoom interview. 27 March 2025.

Murdock, Will. *Orion and the Goatman*. New Play Exchange, 2022.

Parikh, Devon. Zoom interview. 23 March 2025.

Patel, Aniruddh D. *Music, Language, and the Brain*. New York ; Oxford University Press, 2008. Print.

Pavis, Patrice. *The Intercultural Performance Reader*. London; Routledge, 1996. Print.

Perez, Carolina. Interview. 8 March 2025.

Perkins, Kathy A. "Their Place in History: African Americans Behind the Scenes in the American Theatre." Theatre Design & Technology, USITT. 1995, pp. 27-35.

Sanchez Valdez, Soledad. Zoom interview. 28 March 2025.

Ward, Ollie. Personal communication. 8 March 2025.

Woloshyn, Alexa. Interview. 1 October 2024.

Zahida, Sherman. Zoom interview. 8 July 2024.