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UNIVERSITY OF CALIFORNIA,
IRVINE

Black Space:
Creating Meditative Music Through the Black Lens to Combat Unconscious Bias

DISSERTATION

submitted in partial satisfaction of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in Integrated Composition, Improvisation, and Technology

By

JoVia Armstrong

Dissertation Committee:
Professor Kojiro Umezaki, Chair
Professor Michael Dessen
Professor Anthony Kubiak
Professor Stephan Moore

2022

DEDICATION

To

my parents, Brawnski and Theresa Armstrong

for loving me in significant ways.

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It would not be proper not to thank my family and friends for being so supportive and patient with me over the last four years. Thank you for allowing me to call you just to say, “I just called to tell you I cannot talk right now, but I’m thinking of you.” Blame my mind, but not my heart. These have been the most challenging moments of my career and personal life since I never mastered the art of separating the two.

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Music composition and performance

ABSTRACT OF THE DISSERTATION

Black Space:

Creating Meditative Music Through the Black Lens to Combat Unconscious Bias

By

JoVia Armstrong

Doctor of Philosophy in Integrated Composition, Improvisation, and Technology

University of California, Irvine, 2022

Professor Kojiro Umezaki, Chair

This dissertation consists of original compositions and a written research document that unites aspects of meditative practice, black music aesthetics, and custom/contemporary forms of music technology. The work is motivated by a desire to combat unconscious bias and offer space for black audiences to contemplate, gain self-esteem, and understand their identities. The research draws support from the work of cultural critics, such as bell hooks, to explain why it is vital for black composers to create music for black communities that intentionally aims to trigger contemplation and self-actualization. The original compositions offer a model for this kind of compositional practice, including creating music specifically with new technologies in mind.

The Preface tells of a small portion of my youthful years as a young musician, unknowingly embracing biases that shape who I am today. It relates three particular interactions with students who, through their words, revealed the indoctrination of the biases that they embraced. These personal stories show evidence that biases start at a young age and that we must take actions to combat them. My personal history reveals how I relate to my students and illustrates how I see myself in them. This reflection helped me to self-actualize to combat the

biases I had adopted. Leaning on the works of black American writer, activist, and feminist scholar bell hooks, along with the support of other scholarship, Chapter 1 offers evidence of how unconscious bias begins in children and how the spaces we are in are crucial to our development as self-actualized people. This chapter also introduces the concept of Black Space as a recognizable genre of music. Chapter 2 overviews two practitioners, Herbie Hancock and Pauline Oliveros, whose work greatly influences this creative research to show where some of my views align with theirs, which is seen throughout this document. Chapters 3 and 4 both explain concepts of using technology to create space which ultimately begets contemplation for audiences and how this is possible. They also describe what eunoia is and how it is triggered through composition. Chapter 4 also explains how meditation and music work together and how to construct Black Space music. Finally, Chapter 5 describes the music created for this dissertation research and how concepts of meditative practice were applied and composed within the songs.

PREFACE

I am a black woman who plays percussion, makes beats, travels alone, and talks to strangers. Doing things that I enjoy and love has liberated me from the mindset that I can only enjoy and love doing things that women are expected to. I am unique, and that uniqueness carries light complications making it difficult to know how I fit in society. In my mind, I am no different than any other consumer living in a capitalistic society, but I am not a woman who dreams of having a family home with a white picket fence around it. I dream of having expensive drum machines, vintage cars, and comfortable shoes. I would be happy to live in a small space behind a recording studio. Pursuing my happiness has othered me by people with preconceived notions of how they believe a beat-making, solo traveling, drumming black woman is supposed to act and who she is supposed to be.

Simultaneously, it is my unique identity that allows me to be seen by others—I tend to stick out from the crowd, although sticking out is the opposite of my personal goal of wanting just to be unapologetically me. But, I understand that young kids... young black kids... and especially young black girls need to see me. And they need to see other people who look like them finding happiness. I want this uniqueness of mine to be normalized with the hopes of not feeling othered or different from other women. Other women like me may feel *othered* by society as well.

Who I am, how I see myself, and how I feel about myself differ from how others perceive me. It took a long time for me to understand who I am and why I am. I take on challenges to level up my skills, but there was always a hint of self-doubt. Being in unfamiliar territory and doing things I have never done before can (or will) naturally make me feel uncomfortable. It

simply makes sense that there is a possibility of failure when doing things I have never done before. What I have learned to do, is just to do it. This is easier said than done.

Learning about my true self replaced the fictitious perceptions that people have had about me. Learning the truth about myself has been the best way to combat others' perceptions of me.

Why Am I?

Liberation feels so good, especially mixing that with my parents' confidence in me. Thank goodness they gave me that confidence because my older brother did not. He always compared me to Joey on TV; I presumed my brother thought of Joey as a loser because he was a musician.

Joey was a character from an early 90's TV show called "Roc." Joey was Roc's womanizing, trumpet-playing brother who always ran to Roc to borrow money or crash on his couch. Since my nickname is Jo, it seemed effortless for my brother to call me Joey. He ridiculed my choice to be a musician. In so many ways, he had me thinking that I would end up like Joey. Financially broke and always looking for handouts. You know, the stereotypical musician. I loved music and percussion. I was not going to let it go. So, I decided to be great at it. To hustle it. I had to push the introverted, soft-spoken little girl to the sidelines so that I could be an explosion on stage. Going out into the world without fear was the only way to divert from becoming Joey. I wanted to prove my brother wrong. I was not Joey. I would pay my bills and figure out things independently.

How I managed to be Joey aided in shaping my identity but also generated a struggle within me. This was my first step to becoming a "strong black woman,"— which carries heavy traits that I no longer want. Frankly, I have never wanted to be a strong black woman. It is exhausting. The following has been my mantra for navigating life:

I am a woman who never asks for assistance because I chose this life. I will patiently struggle until I have eliminated all possible solutions. Then I will ask for help. I will not wait on others to do things for me— they will fail me. I say “yes” to everything if it means I will save the day. Even if it means putting others before myself, causing me to be exhausted. In my mind, my struggles are my own and mine alone. I chose to play congas; therefore, it is my job to carry them.

My brother, and many other people in the world, see musicians as people who can not handle life independently, who constantly make poor decisions, and are in constant financial need. This simply is not true. If more success stories from musicians were exposed, maybe more people would not be so doubtful of what success looks like in music careers. Since I chose to become a musician at the age of 12, I had my work cut out to disprove the stereotypes that Joey played into on TV. My trauma response shaped me into something I never wanted to be— a strong black woman. I no longer want these character traits. It has become apparent that many of my motivations in life were to prove to others that I could accomplish anything. But, my motivation in life should have been seeking happiness. Now that I am an accomplished composer and musician, I ask, “who am I once I am without music?”

I would like to begin this research by recounting three personal stories that led me to this research. These narratives illustrate negative perceptions about ourselves that are possibly fictitious, making reality questionable and damaging our well-being and happiness. These stories will explain how social conditioning can easily affect the development of a person’s identity in their formative years and also help you understand this research more precisely.

The music of this dissertation is evidence of a personal breakthrough since this is the first time since 2009 (over ten years) that I am releasing music out into the world as a solo artist. I worked through years of disappointment, perfectionism, and self-doubt as I created this project in hopes that it would help others. So, I have stopped comparing myself to others. Now, I am striving to be myself. I am doing something so uniquely fitting to my identity that *good enough*

is whatever I say it is. I am perfect, doing what I do. No one else can do it, just as I cannot do what they do. I fight for individuality— it is my happy place. In referencing Buddhist philosopher Thich Nhat Hanh, feminist scholar bell hooks states, “teachers must be actively committed to a process of self-actualization that promotes their own well-being if they are to teach in a manner that empowers students.”¹

The following stories and the research below in the subsequent chapters will explain why we should learn how to separate the perceptions we hold about ourselves gained through social conditioning and our real identities.

YOUmedia

From 2009 to around June 2012, I worked as an Audio and Music Production Mentor at Digital Youth Network (DYN), located in Chicago, IL. DYN offered me a full-time job teaching whatever I wanted; however, I wanted to teach. This job provided me with a decent salary and benefits, which helped me cope with my mother’s recent death. I was able to turn down gigs that I did not want to do, and I used that time to contemplate life. I mentored high school students and eventually began to work with middle school students as we expanded our services to other locations. Subjects we taught in our weekly workshops ranged from video, graphic design, animation, photography, digital music production, audio recording/mixing, spoken word, and publishing. The list went on.

The space we mentored in was called YOUmedia Chicago (YM) and was large enough to support a little more than 200 students at our Wednesday night open mic event. The MacArthur Foundation funded YM, the Chicago Public Library gave it a home, and DYN gifted it with mentors. This remarkable collaboration aided in the birth of Noname, Chance the Rapper, Saba

¹ bell hooks, *Teaching to Transgress: Education as the Practice of Freedom* (New York: Routledge, 1994), 15.

Pivot, Malcolm London, and other young artists who all entered the space with a strong sense of identity as artists. YM did not create these young artists. These students entered YM full of talent and ambition. They used this space to foster what was already inside them— artistic talent, creativity, and vision.

The mentors were there to guide the students at their own pace. There was some hand-holding; sometimes, we had to push students out of the nest to propel them to use their wings. When they were afraid, the mentors showed them different paths to take. They were somewhat alone in choosing their path but not alone in walking it; knowing when and how to give students space was the trick. Leveling up was an actual “thing” at YM. The mentors discussed whether we thought students were ready for a higher push to the next level. It reminds me of my dad pushing me on the swings at the park. Every couple of minutes, he would ask, “are you ready to go higher?” He allowed me to level up when I was ready. Providing space for young people to decide when they are ready is a key to getting them to trust you. Artistic expression is where their identity can shine through. Little by little, they grow more confident and begin to look for the next level on their own. There is beauty and power in the student who approaches the teacher and asks, “what’s next?” The question itself is evidence of someone growing and recognizing their own evolution. It is up to them to decide how far they want to grow. Through music mentorship, I have helped students level up, gain confidence and develop their sense of identity. This is how I chose to help students combat social conditioning to understand self-value better.

The following personal stories show how having and allowing space can cultivate creativity, question what is real, and enable identity development. The following also demonstrates that our perceptions about ourselves and the world develop at an early age. The

effects of social conditioning and the false perceptions we gain about ourselves do not have start times or time limits. Allowing someone of negative influence into your space could taint it with their false realities and preconceived ideas. This is why protecting our spaces (physical and mental) is invaluable. The following short stories all happened at YOUmedia.

We Don't Belong Here

Sometime in 2011, three teenage boys came into the space wearing jeans, white t-shirts, and Airforce 1's. I welcomed them as I did all the fresh faces. I told them how the space inside YM functioned, informing them they were free to do what they wanted. They stayed maybe three hours and left. They came in again later that week for a couple of hours. The third time I saw them, they lingered for around 25 minutes. This is not a space you visit for 25 minutes. It is in downtown Chicago, a hike for many students and possibly dangerous for some of them. It is also filled with amusing, escapist activities such as playing video games. I asked the teenagers why they were leaving so soon. They said, "We don't belong here." I assured them they did and that YM was created especially for them. They said again that they did not belong and left. I understand that YM may not have been their cup of tea. I had to respect that. But, I did not comprehend how they could exclude themselves from this space full of opportunities.

Where was it located if there was another place where they could be? Could they not see what we were offering to them? Maybe I was ignorant and possibly a bit arrogant to think YM and myself were better than the path they chose to walk. It took me ten years to realize that these young men were not referring to YM when they said those words. They were referring to downtown Chicago. They felt different and "othered" in downtown Chicago where they smelled money in the pockets of suits and purses of people who did not look like them. No one had to verbally convey to them that they did not belong there. The message is ingrained in the culture of

downtown Chicago—the stares they get, the high-end fashion retailers that they cannot afford, and the many stories floating around about how people who look like them are treated in areas like downtown Chicago. The space of downtown culture tells the story of racial discrimination and unconscious bias, which is not coupled with a warm welcome to those forced into their own spaces.

There's Nothing a Woman Can Teach Me!

There was the case of the young man who said out loud, “There’s nothing a woman can teach me!” Excluding the topic of his outburst, this was a typical day at YM, although most outbursts were humorous. On this day, he got an earful from the eight people who heard him at the front desk where the librarians sat, and students loved to stand to hold these conversations with them. He was about 16 years old at the time. “I bet most if not all of your teachers are women,” said Eric, one of the many researchers from DePaul University and the University of Chicago, studying everything happening in the space for the first three years of its existence. This student had been coming in for a while, and we talked often. I perceived him as a cool kid focused on school, coming in with a crossbody soft briefcase instead of a book bag. But, he gave nonsensical reasons for his outburst. He admitted that his teachers were women, which confused those of us engaging him. Was he learning in school or not? Was he telling us that he was not smart— due to his teachers being women? That was not the perception I had of him. He seemed very bright. The root of his outburst soon came to light, although it is still very confusing.

What I soon learned was that he hated his mother. I cannot remember the cause of their stormy relationship, but this could have much to do with his cry for help at the desk. Could he be in a school where he did not learn from his teachers because they were women? Or were his words offering him a way to release his tension without vilifying his mother as his immediate

problem? How will this affect his relationships with women in the future, whether they are his bosses or his lovers? The reality that women could not teach him anything may have been *real to him*. But, *his reality* was not true to the evidence presented to the rest of us, making his reality an alternate reality. Maybe it makes our perceptions alternate realities since it is his life, and he is the only one who can live it. Here is where there could be a problem. If he continues to believe that women cannot teach him anything, he will only listen to men and miss out on the perspectives and experiences of others. This opened my eyes to the problems of our perceptions. We can hold alternate truths and alternate realities. But what is truly real?

Girls Don't Do That

Lastly, I was teaching a beat-making workshop one day at YM, as I did every week. YM's design had an open floor plan, so every student in the 5,000 sq. ft. space could hear the music from one end to the other. We referred to it as our Geek Out space. Three to four girls came to my workshop to learn how to make beats. They all knew each other. Usually, the girls wanted to listen before attempting to try it themselves. Very timidly, they pushed a few buttons and turned a few knobs, but they seemed interested, at least. The boys were typically impatient, jumping in to push buttons and make sounds. We blasted two large 12-inch speakers. It worked like the pied piper, drawing attention to notify everyone that the workshop was starting. I had the girls' attention for about 10 minutes before the first teenage boy came over. Then three more came over. After a few minutes, about six teen boys were itching to touch the equipment. Around twelve minutes in, the girls started to walk away. I stopped them and asked, "Where are you ladies going? We're just getting started." Their response was, "Girls, don't do this." I asked, "Do what?" They answered, "Girls don't make beats or use that," pointing at the MPC2500.²

² Akai MPC 2500, a drum machine and sampler that was an integral production tool of early hip-hop.



Image 1: MPC2500, Courtesy of Akai Professional.

I stood there, a bit puzzled. “Aren’t I a Woman?!” I showed them how to use it as a seasoned women’s beat-making society member. I was highly disappointed that they opted out of learning this legendary tool to create music. I wondered what the girls thought of me, as I (a “girl”) was using this piece of machinery to create art.

Social conditioning has affected African Americans, particularly girls, and caused a kind of mental entrapment or what psychologists call internalized oppression.³ Critical race feminist theorist Karen D. Pyke wrote an article on internalized racial oppression and the lack of research on the topic.⁴ Pyke quotes sociologist Stuart Hall who defines internalized racism as “the ‘subjection’ of the victims of racism to the mystifications of the very racist ideology which imprison and define them” (Hall 1986:26).⁵

The internalization of oppression is a multidimensional phenomenon that assumes many forms and sizes across situational contexts, including the intersections of multiple systems of domination (Padilla 2001). It cannot be reduced to one form or assumed to affect similarly located individuals or groups in precisely the same way. It is an inevitable condition of all structures of oppression (Schwalbe, Godwin, Holden, Schrock, Thompson, and Wolkomir 2000).⁶

³ Sometimes referred to as internalized racial oppression.

⁴ Karen D. Pyke, “What Is Internalized Racial Oppression and Why Don’t We Study It? Acknowledging Racism’s Hidden Injuries.” *Sociological Perspectives* 53, no. 4 (2010): 551–72. <https://doi.org/10.1525/sop.2010.53.4.551>.

⁵ *Ibid.*, 552.

⁶ *Ibid.*, 553

I fear that the young man who cannot learn from women will engage in oppressive relationships where he refuses to listen to his girlfriend, wife, or daughter. Men and women, it seems, create oppressive relations with each other by passively accepting such views perpetuated through social conditioning and constructs such as gender roles and biases developed in the classroom from early ages.

By first grade, many children already believe boys are more interested than girls in engineering, the study found. By third grade, children believe that gender-based interest is true of computer science as well. Interestingly, the research revealed that stereotypes about who is interested in STEM are stronger than stereotypes about STEM ability. The belief that girls find math and science less engaging was shown to have a greater impact on girls' interest in STEM than the belief that they may not be good at it.⁷

These beliefs then, as they get older, get linked to their own motivation and their interest,” said Allison Master, assistant professor at the University of Houston College of Education and lead author of the study. “Stereotypes are self-fulfilling prophecies.” In the report, Master and her co-authors concluded that such stereotypes “may send girls a signal that they do not belong and dissuade them from developing an interest in these fields.”⁸

Female readers of this essay can no doubt recall their parents' warnings about hanging around in certain places because they are looked at as girls. Girls, in general, are given more protection than boys, although that is not saying much. Such 'passive' responses of acceptance should not be surprising if we recall the earlier suggestion that we are socialized into accepting gendered divisions of space. This socialization begins at an early age when, as children, we learn the rules of negotiating space. Girls and boys are encouraged to participate in different types of activities which vary in their use of public spaces. Architect, activist, educator, and writer Jos Boys writes:

⁷ Jackie Mader, “Researchers looked at how early STEM stereotypes begin for kids.” (The Hechinger Report, 2022). <https://hechingerreport.org/researchers-looked-at-how-early-stem-stereotypes-begin-for-kids-they-found-them-every-step-of-the-way/>

⁸ Ibid.

Girl children are socialized off the street through an implanted fear of men, by restrictions on street games and activities and by an emphasis on activities that concern grace rather than speed. Girls soon learn to take up as little space as possible to be allowed within the category 'female.' While young boys can prove their “boyiness” by taking up lots of room, particularly on the street.⁹

From an early age, girls and boys are taught to be different from each other. Remember, while teaching my beat-making workshop, the girls were comfortable until the boys appeared. There seemed to be this automatic thought that they needed to give up their space for the boys to learn how to use a beat machine, a device that, in their perception, was made for boys. The experiences I gained at YM jump-started the questions that led to this research. As a musician and composer, I wondered what I could do to help young black students understand that they deserve the same opportunities that more privileged students are born with. It is tough to ask a teen what makes them happy in life. But I think we need to ask that question more often and ask it earlier. Social oppression or conditioning are obstacles that can easily sway us to one way versus another.

Social oppression confines our spaces— physical and mental. There are many ways that music can offer us space, even if it is just a perception. But, it is a huge battle where one person is located in the center of a small space while surrounded by one hundred cannons aimed at them from every angle— every cannon is a TV image that tells you that you are not worthy or valuable, simply by excluding you from airtime. Airtime is space, is it not? Time and space co-exist on TV, in film, and in music. You will often encounter the word “space” in this research. The spaces we are in shape our identities and how we view ourselves. When and where we are in life matters immensely to our growth and how we handle life’s challenges.

⁹ Jos Boys, “Women and Public Space” in *Making Space: Women and the Man Made Environment* (London: Pluto Press, 1984), 41.

CHAPTER 1: Self-Actualization and Space

The above Preface describes personal stories and events that led me to choose this dissertation research. These sincere stories demonstrate that our perceptions could project false narratives, create false senses of reality and negatively shape our personalities. False perceptions can affect everything about us, including our decision-making, confidence, and self-esteem.

Author and feminist writer bell hooks explains the motivation behind her work in her book *Teaching to Transgress*:

Throughout my student years I felt deep inner anguish. Memory of that pain returns as I listen to students express the concern that they will not succeed in academic professions if they want to be well, if they eschew dysfunctional behavior or participation in coercive hierarchies. These students are often fearful, as I was, that there are no spaces in the academy where the will to be self-actualized can be affirmed.¹⁰

According to hooks, she obtained a desire to help those in whom she saw herself. She had already walked her path to self-actualization, and she saw ways that she, as an educator, could help her students. But what exactly does it mean to self-actualize? The concept of self-actualization came from psychologist Abraham Maslow, who greatly admired two of his teachers, who seemed to be different from other people to him. He admired them so much that he decided to study them, and this study led him to discover what it means to be self-actualized. Self-actualization has been recognized by scholars such as bell hooks, who embraced this concept in her works as an educator. Maslow presented at The Conference On The Training Of Counselors Of Adults¹¹ where he explained self-actualization in eight attributes. These attributes will also describe how the investigations of bell hooks make sense as an anchor of this dissertation research which explains the motivation for using composition to help people

¹⁰ Bell hooks, *Teaching to Transgress*, 18.

¹¹ Abraham Maslow, *Self-Actualization and Beyond*, (New England Board of Higher Education; Winchester, Mass Center For The Study Of Liberal Education For Adults), 1965.

contemplate. It is highly encouraged that you read these eight attributes thoroughly for a clearer understanding of Maslow's research. Here is an edited version of six (of the eight) key attributes that Maslow makes about what self-actualization is:

First of all, self-actualization means experiencing fully, vividly, selflessly, with full concentration and total absorption. It means experiencing without the self-consciousness of the adolescent.

Second, let us think of life as a process of choices, one after another at various choice points. At each point there is a progression choice and a regression choice. There may be a movement toward defense, toward safety, toward being afraid, but over on the other side is the growth choice. To make the growth choice instead of the fear choice a dozen times a day is to move a dozen times a day toward self-actualization.

Fourth, when in doubt, be honest rather than not. Frequently, when we are in doubt we are not honest. Our college students are not honest much of the time. But looking within one's self for many of the answers implies taking responsibility. That is in itself a great step toward actualization.

Fifth, you cannot choose wisely for a life unless you dare to listen to yourself, yourself, at each moment in life, and to say calmly, "No, I don't like such and such."

Sixth, self-actualization is not only an end state, but it is also the process of actualizing your potentialities at any time, in any amount.

Seventh, peak experiences are transient moments of self-actualization. Breaking up an illusion, getting rid of a false notion, learning what they are not good at, learning what their potentialities are not -- this is also part of discovering what yourself is in fact.¹²

If the three black boys at YOUmedia saw more people who looked like them in downtown Chicago, would they have felt like they belonged there? Will the young teenage boy have good relationships with women if he has a skewed perception of his mother, whom he will identify with other women? There is a great possibility that if women making beats and using technology were normalized, young black girls might participate in more science, technology, and math programs. In the article "How Brands Should think About Representation of Black

¹² Abraham Maslow, *Self-Actualization and Beyond*, 111-114.

Women Creative,” Jeanine Poggi talks to Dr. Knatokie Ford about the black image in media:

Storytelling is a powerful tool that can inspire more Black women and girls to embrace the limitless potential they possess within themselves,” said Dr. Knatokie Ford, SeeHer executive advisor who spearheads #WriteHerRight. “It is imperative that critical moments are converted into momentum to catalyze meaningful and lasting change in how Black women are portrayed. Media bears immense potential to shift culture in non-trivial ways by mitigating bias that perpetuates mistreatment, injustice, inequities, and invisibility.¹³

This chapter demonstrates supporting evidence of why understanding our identities strengthens our sense of self-worth and is essential for how we handle ourselves in spaces that are not designed for us. Using music composition as an antidote, we can create songs to help us contemplate essential concerns in our lives that send clear messages about who we are, what we like and dislike, what makes us happy, and how we respond to challenging situations. But more importantly, this chapter shows us that the spaces we are in can gravely shape our identities, affecting our abilities to combat unconscious bias and other harmful ways of perceiving ourselves.

Space Actualization

Space actualization does not exist as an area of study outside this research. I use it as a term to explain how the spaces we are in affect how we think, how we feel (including about ourselves), and how we act. We should be aware of the spaces we are entering, which means being prepared to properly navigate within the atmosphere and attitudes of others in that space. We also could benefit from actualizing the spaces we would like to be in, which can manifest through meditation. When we have space, we have room to think and grow— without the influence of outside entities. I assume Maslow’s research means that with a strong sense of

¹³ Jeanine Poggi. “How Brands Should think About Representation of Black Women Creative.” Ad Ages, 2021. <https://adage.com/article/advertising/how-brands-should-think-about-representation-black-women-creative/2324196>

self-actualization, we can survive and prosper in any space, even those not designed for us.

While that may be true, space actualization is also acknowledging that there are spaces that can help you thrive and self-actualize. Actualization is the understanding of spaces where we have the potential to flourish.

During February— known as Black History Month— in 2020, there was an abundance of newly exposed reports about the outstanding achievements of African Americans drifting around the internet. As part of that month’s brief celebration of blackness, the retail store Target aired two new commercials for black products made by black women, promoting their “dedication to working with diverse suppliers.”¹⁴ In other words, Target created shelf space for the “others.” In one of the ads, entrepreneur Beatrice Dixon expressed the importance of the black image and how it influences others and her belief that African Americans need to see themselves winning.

Writing for a popular blog named *Madame Noire*, Victoria Uwumarogie gives a synopsis of the commercial:

During Black History Month, the corporation released a spot where Beatrice Dixon talks about the difficulties of starting her popular feminine care company and how Target stepped up to help her not only get in their stores but also other retailers. At the end of the commercial, Dixon says, “The reason why it’s so important for Honey Pot to do well is so that the next African American girl that comes up with a great idea, she can have a better opportunity. That means a lot to me.”¹⁵

Many viewers did not like what Dixon had to say, left negative reviews of her product on *Trustpilot*, a consumer review site, and boycotted Target (likely continuing to do so). They wanted Dixon to uplift both white girls and white women, not just black girls. But uplifting one

¹⁴ Anagha Srikanth, “Black-Owned Company in Target Ad Accused of Discriminating Against White People,” *The Hill*, March 2020.
<https://thehill.com/changing-america/respect/diversity-inclusion/485738-black-owned-company-in-target-ad-accused-of/>

¹⁵ Victoria Uwumarogie, “Fragile White Folk Are Leaving Ugly Reviews For The Honey Pot After CEO Said She’s Looking To Empower Black Girls,” *MadameNoire*, March 2, 2020.
<https://madamenoire.com/1136227/the-honey-pot-racists/>

group of people should not diminish the esteem of another. Black women carry significant issues about their appearance and image and have struggled to be seen as beautiful without objectification or fetishization. Black women deserve space to be seen doing various kinds of work, by consumers and especially young black girls.

Here is why this event and this story matter. A study titled “Beauty and Body Image Concerns Among African American College Women,” drew on interviews with black women to raise different themes and explain why they take their image so seriously:¹⁶

They may have to contend with ideals of beauty that favor European ideals¹⁷ [*sic*]. As a result, African American women spend a significant amount of time and finances on their hair. There also may be social costs for women who choose to wear their hair natural. Evidence of discrimination in the workplace and by potential dating partners who do not accept natural styles has been documented.¹⁸

Black people have used “white” products for our black hair and skin that may enhance our appearance but usually are very damaging to our hair and skin. Luckily, these days more black women are looking to nurture their natural God-given kinky hair and hydrate their glowing skin. Many black women such as Annie Turnbo Malone made and sold their own hair products in the late 1800s. Madam C.J. Walker experienced patterns of baldness and decided to start her own black hair care company after working for Annie Turnbo Malone. I have some qualms with Madam C.J. Walker as she also made hair straighteners for black women, which goes against my belief in being self-actualized. But, in today’s society, black people are investing more in natural products that do not contain harmful chemicals. For years, many black women have made their

¹⁶ Awad, G. H., Norwood, C., Taylor, D. S., Martinez, M., McClain, S., Jones, B., Holman, A., & Chapman-Hilliard, C. (2015). Beauty and Body Image Concerns Among African American College Women. *The Journal of black psychology*, 41(6), pp. 542–543. <https://doi.org/10.1177/0095798414550864>

¹⁷ Maxine L. Craig, *Ain't I A Beauty Queen?: Black Women, Beauty, And The Politics Of Race*, (New York, NY: Oxford University Press, 2002).

¹⁸ Byrd AD, Tharps LL. *Hair Story: Untangling The Roots Of Black Hair In America*, (New York, NY: St. Martin's Griffin), 2002. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4713035/#R8>; Sue DW, Nadal KL, Capodilupo CM, Lin AI, Torino GC, Torino Rivera DP. Racial microaggressions against Black Americans: Implications for counseling. *Journal of Counseling & Development*. 2008; 86:330–338.

own products, using essential oils, herbs, and nutrients in their bathrooms and kitchens. But this takes time and research, while other black women do their best to choose the right products off the shelf for themselves.

African Americans have been buying beauty and fashion products that only cater to white people for many decades. Also, there are black hair and skin care products that are owned and operated by white CEOs. Taken alone, neither of those facts is necessarily a problem, but as a whole, it *is* problematic that there exists a lack of products that work *best* for black skin and hair, a lack of black *owners* of these companies that distributors are willing to work with, and a lack of shelf space retailers give to black manufacturers. Where is there shelf space for black entrepreneurs?

Black people simply do not gain the same opportunities as their white counterparts and have to work harder to earn the same respect when we do. It should be a serviceable achievement for African Americans “who have made it” to reach back to their communities to uplift those who need a small ray of hope.

Black people need to know there is space for them, where these spaces are, and *when* these spaces are. As Neil Young once said, “The past is such a big place.”¹⁹ Knowing that there is space is more important to actualize because space itself is gigantic. When we walk through the aisle of a Target store, the shelves are filled with products. African Americans need to be acknowledged in this world. They want to be seen. They need sidewalk real estate just as they need shelf real estate. But, without knowing how to make room on the shelf, African Americans will be hopeless.

How much of this market do black people own? African Americans are allowed space to spend money but not to hold businesses to earn wealth. As bell hooks writes in *Black Looks: Race and*

¹⁹ Gill Hasson. *Mindfulness: Be Mindful. Live in the Moment.* (Germany, Wiley 2013), 67.

Representation, “Indeed, a fundamental task of black critical thinkers has been the struggle to break with the hegemonic modes of seeing, thinking, and being that block our capacity to see ourselves oppositional, to imagine, describe, and invent ourselves in ways that are liberatory.”²⁰

Through discovering our identity through self-actualization, black people are seeking liberation. There is a liberation that comes along with knowing thyself. Feeling free to walk through downtown Chicago wearing a white t-shirt and baggy pants because you want to should not make others feel threatened. Assimilation only forces us to let go of our individual characteristics to embrace those who oppress others. The question that is asked repeatedly is, “could you scoot over a little so I can sit too?”

Space IS the Place

The story of Caroline Sacks below is evidence of what it means to be in the right space, at the right time. In his book *David and Goliath*, Malcolm Gladwell tells true stories about what we should consider when facing tribulations. He also articulates how our perceptions of our circumstances could cause harm, which shines an insightful light on the quote, “things aren’t always what they seem.” In chapter 3 of the book, “Caroline Sacks: If I’d gone to the University of Maryland, I’d Still Be In Science,” Gladwell states, “there are times and places where it is better to be a Big Fish in a Little Pond than a Little Fish in a Big Pond.” Gladwell recounts several stories to demonstrate his position, but I will summarize the main story he narrates about a young girl named Caroline Sacks.

Caroline found pride in saying that she was a girl who loved science and bugs. She excelled in school all her life, especially science and math, until she decided to go to the prestigious Brown University instead of the University of Maryland. Caroline struggled in her

²⁰ bell hooks, *Black Looks: Race and Representation*, (Boston, MA: South End Press, 1992).

organic chemistry classes there. She took chemistry twice and received a low B the second time. She also realized that her classmates were competitive, so they would not share notes, study with her, or help. Sacks described her experience as “... this feeling of overwhelming inadequacy.” She saw her classmates eager to raise their hands to answer questions in class and noticed the little time it took for them to think of the answer. Gladwell points out two factors to consider that offer an alternate perspective.

One is that a lot of people view organic chemistry as really hard. “It is not uncommon for pre-med students to take organic chemistry over the summer at another college just to give themselves a full semester of practice,” Gladwell says. The other factor he says is that “Sacks was taking organic chemistry *at an extraordinarily competitive and academically rigorous university.*” Now Gladwell offers a reason why Caroline Sacks did not excel at Brown University:

...the problem was, Sacks wasn't comparing herself to all the students in the world taking Organic Chemistry. She was comparing herself to her fellow students at Brown. She was a Little Fish in one of the deepest and most competitive ponds in the country— and the experience of comparing herself to all the other brilliant fish shattered her confidence. It made her feel stupid, even though she isn't stupid at all.²¹

An obvious takeaway from this story and all of the experiences mentioned above is that people form ideas about themselves based on harmful *false realities* created under the guise of social oppression. As Gladwell points out, Sacks was not stupid, but being around certain people who make up the space that we call Brown University made her feel that way. No one told her that she was dumb or that she did not deserve to be there. But the competitive nature of the students excluded her from being able to fully participate as a student herself. There are a lot of school environments where students reach out to create study groups in person or, now, on apps

²¹ Malcolm Gladwell, *David and Goliath: Underdogs, Misfits, and the Art of Battling Giants*. (New York: Little, Brown and Company 2013), 77.

like Discord. Maybe this was the type of environment she was used to in high school and assumed it would be present at Brown. This makes me think back to the three girls who attended the beat-making workshop. They were not necessarily in the wrong space. They were attentive and enjoyed the workshop. They were in the right space, but the vibe of the space changed when the teenage boys joined. Suddenly, the girls suddenly remembered that “girls don’t do this.”

This space change occurred in real-time and is only slightly different from Caroline Sacks’ experience. How silly of me to think that because there are both boys and girls in classrooms, the girls would feel comfortable in a space with a machine and boys. Another difference is that Caroline Sacks’ feelings of inadequacy grew because of the culture of the university. Changing culture is not worth the effort, especially when there are other schools and spaces to transfer to. Because I cared to gain girls’ attention in technology, I created a few workshops for girls only. More girls attended these workshops, although I loathed separating the boys and girls.

In “Reaching Beyond,” Herbie Hancock remembers auditioning for Miles Davis at Davis’ home one day. Hancock explains that Davis went upstairs for three days while he stayed at the audition with the other musicians. On the third day, Davis decided to join them. Hancock stated:

Years later, I found out that for those first three days when Miles didn’t come downstairs to where we were playing, he was on the third floor listening to us over the intercom. Miles knew that we would be intimidated by him if he was down there playing, and he wouldn’t be able to hear us and what we really had. He had wanted us to be comfortable.²²

Davis understood that his presence in their space would not allow them to play without inhibitions. Giving space is an unselfish action that benefits us all. By giving space, Davis was

²² Hancock, Ikeda, Shorter, *Reaching Beyond: Improvisations on Jazz, Buddhism, and a Joyful Life*, (United States: Middleway Press 2017), 75-76.

able to choose the musicians for his band for their intrinsic talents and creative thought. So, he benefited from offering space. Hancock benefited because he was ultimately able to find himself on stage with Davis.

Another significant takeaway from Sacks' story is that the spaces we are immersed in do matter in developing who we are and how we proceed in making the best choices for our lives to flourish. Creating space for members of the black community means making room for them to be themselves without social assimilation, which is imperative to building self-worth and understanding their identities. Hancock's microlevel experience of space is synonymous with the microlevel experience of Caroline Sacks. These experiences are evidence that space grants us freedom to be our genuine selves; therefore space can be seen as an antidote to the negative effects of unconscious bias.

Due to the efforts of the Civil Rights movement, Black Americans were given just enough space to be satisfied for a short period, with the understanding that things were not perfect and there was more work to do. We could consider that the black community was in the space of liberation during the Black Power Movement. This is a time in American history when black people unapologetically took up space. During this time, black people chanted protest words, wore African print clothes, rocked afros, wrote and created Blaxploitation films, and black artists recorded lyrics that recited us to say it loud, "*I'm Black and I'm Proud!*" Soul singers like James Brown and Bob Marley left their DooWop groups behind to sing songs about black pride and to encourage us to "*Keep On Pushing,*" in the lyrical words written by The Impressions. After the Black Power Movement, towards the end of disco, our lyrics were messages to the community that we were on the right path. These lyrics reflected the efforts of the Civil Rights Movement and the Black Power Movement, which earned us a little freedom to

feel slightly liberated. Essentially, this was synonymous with gaining space to embrace black identities within black culture and communities. However, this did not mean you could be black in other spaces.

But, soon after the Black Power Movement ended, possibly around the time of the Reagan administration, a broad cultural shift occurred in that black people began to assimilate again, leaving our afros behind with our dashiki shirts and black fists. Some gained disdain for anything resembling afrocentric sexuality, politics, ideologies, fashion, and religion. Others have issues with their own skin color or the shape of their noses. Afrocentric culture is seen as secular by many black Christian believers and they also connect African faiths as a whole to paganism. For centuries black people were taught to assimilate into American society, but America itself was not sure of its own identity due to the culture wars. Now that black people were allowed in spaces not designed for them, they had to fit in by not being so black— disavowing their blackness to fit in once again. bell hooks talks about this in “Restoring Our Souls,” in her book *Rock My Soul*:

Whereas we were once a group that prided ourselves on recognizing the value of inner life, a life that could have meaning and joy even in the midst of struggle, oppression, and exploitation, many of us tossed those belief systems aside, believing that the real way to freedom was by giving in to the dictates of a culture of domination and surrendering one’s moral and ethical stance.²³

hooks' comment reminds us that shifting away from this historical transformation in the 1980s and the culture wars toward a more assimilationist approach comes with a cost that is clear in Gladwell's recounting of Caroline Sacks' experience. Sacks attempted to fit in, but she could not. Brown University did not create space for her, and although that was not her fault, she regrets attending there. Whereas with Hancock’s experience with Davis, we see that allowing

²³ bell hooks, *Rock My Soul: Black People and Self-Esteem*, (New York: Atria Books, 2004), 215.

space comes with a gain. Davis wanted to hear Hancock play from his lens. Getting out of the way and out of the space permitted Hancock's personality to shine through his playing.

While the topics of identity, self-esteem, and social oppression may not seem connected to music, plenty of research proves that black music artists have written many songs that socially address the times and spaces we live in. Because black artists live in the oppressed spaces they address through music, they can express what the public wants to say or, in some cases, scream. The songs I am referring to were not merely songs that these artists were writing for money; they were selling peace and love. They were spreading messages of pride and community. They combated racism that they were immersed in every single day. These songs help us get to the next phase of our search for happiness. The lyrics of black music, from the Blues to Trap, are possibly helping us cope with our struggles with our self-esteem. It seems that musical artists are, or can be, sonic healers and musical doctors.

Music for Mental Space

We can be satisfied at home while unhappy in our careers. We could be the finest rapper on our block but considered mediocre on another. Space and the effects of that space matter immensely in shaping our identities. Black people need to dig into who they are because it empowers them to pursue completeness for their well-being. This is especially important for black people to do this through the black lens. Maybe that is why counseling works. By talking, we hear ourselves speaking—our own voices helping us contemplate any subject and part of life. bell hooks writes in *Rock My Soul*,

The call for racial uplift in the early twentieth century was not a superficial evocation of black pride; instead it was truly a call for this newly freed mass population of Americans, African and those of African descent, to strive to be fully self-actualized.²⁴

²⁴ bell hooks, *Rock My Soul*, 4.

Black people have collectively reached self-actualization for more than two centuries. Some black communities flourished after WWI. But, because of the cries of white women and white supremacist thought, black men were lynched and those communities were burned down or drowned under water. So, even when we have owned businesses and minded our own businesses, our spaces were often taken away from us.²⁵

The goal of this dissertation project is to identify and model a music genre, utilizing new technologies, that combats social oppression. The acknowledgment of Black Meditative Music, Black Psyche, or my favorite, Black Thought (insert lawsuit here), is vital in this time and space because more black people are seeking help. A 2021 New York Times article, “After a Traumatizing Year, Black People Turn to Therapy,” covered a story on black mental health due to the levels of stress that black people endured after the death of George Floyd and high-profile police shootings. Derrick Bryson Taylor reports that “mental health experts across the country say they have seen African-Americans, whose skepticism of therapy has been documented by research, seeking it in growing numbers,” which is a monumental ordeal in the black community. Taylor interviewed Douglas E. Lewis Jr., a clinical and forensic psychologist in Decatur, Ga., who said that he was seeing more black people willing to seek therapy now than in the past. He quotes, “We should all be working toward maintaining our mental health,” he continued, “particularly when we’re facing increased visibility of police aggression seemingly without any justice.”²⁶

²⁵ Burch, Griggs, Gröndahl, “What the Tulsa Race Massacre Destroyed,” The New York Times, 2021. <https://www.nytimes.com/interactive/2021/05/24/us/tulsa-race-massacre.html>.

²⁶ Derrick Bryson Taylor, “After a Traumatizing Year, Black People Turn to Therapy,” The New York Times, 2021. <https://www.nytimes.com/2021/05/09/us/trauma-therapy-black-community.html>.

As composers, although not mental health experts, we can offer sonic spaces for people to drift off to, allowing them space to understand their trauma, which leads to finding resolutions. In a lot of ways, this builds self-worth and identity. Taylor shows evidence that we need another Black Power Movement in music. A music genre that incorporates elements of sonic healing and mindfulness through the black lens that anyone can listen to. This research leans on blending jazz stylings with elements of music that trigger introspection— repetition, drones, and time-based effects such as reverb and delay.

Wayne Shorter, a long-time practicing Buddhist, said, “Jazz enables us, on so many levels, to understand more about the laws of musical expression, and it leads us to a heightened awareness of the essential laws of life itself. Playing Jazz is an effort to become more human.”²⁷ Jazz does allow us a sense of liberation through our effects as improvisers. In improvisation, we free ourselves to make mistakes in performance and practice. After doing this for so long, you learn that there is no such thing as a mistake when listening back to recordings. Allowing musicians to make mistakes reveals their personalities within the recorded music and performance. These mistakes are a part of who they are— their identities.

We can also be human— imperfect creatures— through music by “stretching out,” a phrase used by jazz musicians in two different ways. One way is when they want to take up more time on stage, so they stretch the time by playing longer. Another way the term is used is when they allow themselves to break rules of traditional music practices, such as opting to play atonally, making their instrument sound like an animal, changing the timbre of their sound, and much more. In a nutshell, stretching out means to experiment, which is a time to embrace making mistakes and allow the exploration of new musical ideas. By doing this, we learn how far we can stretch ourselves on our instruments, which pushes us to the next level of playing and

²⁷ Hancock, Ikeda, and Shorter. *Reaching Beyond*, 60.

performance. It shows us that we are still growing and learning how far we can go and how much we can accomplish. And then, we repeat that at the next show. We are constantly increasing and leveling up. Those who are not musicians could apply the idea of stretching out by doing things they have never done before and possibly are afraid to try, empowering them and pushing them to the next level.

Jazz historian and critic, Nat Hentoff, discusses John Coltrane's thoughts on his albums *A Love Supreme* and *Meditations* as follows:

“There is never any end,” Coltrane said at the conclusion of our conversation about this album. “There are always new sounds to imagine, new feelings to get at. And always, there is the need to keep purifying these feelings and sounds so that we can really see what we've discovered in its pure state. So that we can see more and more clearly what we are. In that way, we can give to those who listen (to) the essence, the best of what we are. But to do that at each stage, we have to keep on cleaning the mirror.”²⁸

Coltrane speaks to the mission of the research presented in this dissertation. There is no denying that music has naturally helped people get through the gravest of experiences throughout history. From negro spirituals, the Blues, and other black music genres, music has given us hope and has attempted to uplift us through reciting lyrics about real life while also singing about hope in the future. And it has inspired all of us, not just black people. Music that makes us feel good and music that triggers introspection has always existed, but when thinking regionally about cultures and religions that have fully embraced this music for many decades already, we never hear of meditative music and the black experience. Black people are never mentioned in these conversations. I argue that we have at least had spiritual jazz, started by jazz saxophonist and pioneer John Coltrane with his 1965 album release, *A Love Supreme*. And, before 1965, black people had negro spirituals. A significant difference between the two is that spiritual jazz did not

²⁸ Chris DeVito. *Coltrane on Coltrane: The John Coltrane Interviews* (Chicago Review Press, 2012), 264.

always make a direct connection to a higher power that we call God. Spiritual jazz leaned towards mindfulness, meditation, and the act of contemplation or looking inward.

Identifying Black Meditative Music

Music genres serve the purpose of identifying characteristics of music and categorizing the music to allow people to easily discover other songs with similar characteristics. A recent discovery of an artist whose work resonates with the music of this research is Nala Sinephro, listed as a composer, multi-instrumentalist, engineer, and producer based in London. Her bio states that her “expansive, meditative music fuses ambient and spiritual jazz.”²⁹ Due to her use of electronic sounds and production choices, her music is the closest to what I hear as *modernized* spiritual jazz since it incorporates analog synths, digital music, and computer programming languages used in software such as Max/Msp. Also, her album’s entire production has a modern sound. Sinephro uses repetition, drones and reverb throughout the album and minimal chord movements. Saxophonist, Nubya Garcia, uses an octave pedal or octave processor on the saxophone for most of Sinephro’s debut album, *Space 1.8*. Sinephro also uses jazz harmonies but does not necessarily use typical jazz chord progressions, and a beatmaker could easily sample these chords to create Pop and R&B tracks. Her music has a modernized sound due to her choice of instrumentation and how she chooses to use electronic instruments in her work.

Black artists such as Don Cherry, John Coltrane, Pharoah Sanders, Alice Coltrane, and a few others, had been making spiritual jazz since 1965. The release of Coltrane’s *A Love Supreme* album was highly influential. Let us acknowledge that spiritual jazz is black America’s contribution to meditative music. But, it is very hard to say how popular this music is within the

²⁹ Paul Simpson. “Nala Sinephro Biography.”
<https://www.allmusic.com/artist/nala-sinephro-mn0004099725/biography>

larger category of meditative music. In other words, when searching for meditative music, this music rarely appears as a result.

The research for this dissertation acknowledges Black Space: a space where black musical artists create music that intentionally triggers contemplation, reflection, and introspection at free will— religious or not— using modern electronics and immersive technologies while using modernized production techniques. It is conceived as a subgenre of spiritual jazz.

The manipulation of musical time pioneered by hip-hop producer J-Dilla, odd grooves created by drumming masters like Chris Dave (not necessarily odd meters), and the use of heavy bass from the stylings of hip-hop are a few anchors that connect this contemplative music to black music. We can blend these types of aesthetics with elements of meditative music— repetition, reverb, and drones. Drones are used heavily in the black church during praise and worship services. While the drone is sustained on the organ, the drummer plays a praise shout beat, a very repetitive uptempo backbeat. From jazz artists and their music, I borrow the use of chord extensions, dissonance, and philosophies about liberation, individuality, and the belief that there are no mistakes and perfectionism is not essential. Black Space is a contemporary approach to spiritual jazz, where the technology used to create it is of the 21st century; music production techniques may derive from hip-hop, Detroit techno, or other known approaches from black artists; and, because of its timing in society, it can incorporate more contemporary philosophies on contemplation, brainwave states, meditative practices, and/or mindfulness.

The future of the success of this project, as it relates to the commercial music industry, relies not on the musical works alone but on future humanitarian endeavors that this project will create to connect various Black communities within the contexts connected to music and

technology, and to help those communities understand their identities. This musical project (including future music associated with the concepts central to this research) will undoubtedly become attached to Afrofuturism by the media, and the public will presumably follow their lead. Simply mentioning this project's influence from Sun Ra's cosmic concepts is probably enough evidence for most readers to position this project under Afrofuturism. And readers with any lingering doubt will more than likely connect this project to Afrofuturism after reading this paper or listening to the songs. While it has never been the intention to associate this project with Afrofuturism, it makes sense that its use of technology would develop a commendable bond to Afrofuturism. The association is apparent in three direct ways. One is the use of technology, which automatically conjoins this research to Afrofuturism. Another association is that it is created through a black lens. And lastly, it is fluid— a great word to express jazz.

This research also includes a humanitarian endeavor through Afrofuturistic music to connect Black communities through technology. Sun Ra expressed the following to writer Graham Lock in *Astro Black Mythology*:

The world has got to put up musicians who care about humanity. They can no longer push up those who just turn out commercial, people who just care about themselves. It's very bad to have a limited-minded man in any position of influence on this planet with those nuclear weapons standin' there— they uncompromisin'.³⁰

Outside of the music compositions themselves, the work stemming from this research will create opportunities for Black youth to learn electronic instrument design and creation, educational music software for virtual reality, and telematic performances in Black communities. Instead of becoming consumers, Black youth will have opportunities to understand, through community projects, the importance of creativity and entrepreneurship while learning how to

³⁰ Graham Lock, *Blutopia: Visions of the Future and Revisions of the Past in the Work of Sun Ra, Duke Ellington, and Anthony Braxton* (Durham: Duke University Press), 1999.

create beat machines and synthesizers from scratch. The intention is not necessarily for them to grow up to become musicians. For example, skills gained in mechatronic workshops will teach them more than *how they can* build anything they want. It will teach them that they *can* build anything they want, which is why this work is crucial in building their confidence. To build something from nothing symbolizes an act of creativity that mimics a God-like power. This project also looks forward to building technological esteem by fostering the knowledge of skilled trades beyond the technical scope of trades that Booker T. Washington referred to and created at the Tuskegee Institute.³¹

These students will be able to find work using these technical skills, but landing a job is not the end goal. As other abolitionists advocated for the equality of Black Americans in the 19th and 20th centuries, this research hopes that black people, especially youth, pursue their passions and gain the confidence needed to embrace their black identities for *the sake of happiness*. Sun Ra proclaims,

Sometimes they give grants to artists, you know, but money can't do anybody any good unless people survive. You can't be in an environment of destruction and be happy, you can't really have sympathy in your heart for people and see them dead or dying, see them approaching to Armageddon— you can't be happy with that unless you so completely selfish and blind that you don't care.

The projects stemming from this research do express care. Keeping technology in mind, we can imagine our future. And imagining our futures is, in a sense, a part of science fiction. But this work takes the fiction out of science fiction since it connects to actualization. Science fiction allows us to creatively imagine a black utopia, which is necessary for the future of black living. But, imagining fiction is only a piece of the future, similar to an architect who imagines the design of a three-bedroom house but never breaks ground to build that house. We need to build the house through actionable work. In other words, manifest our imaginations. Lock writes:

³¹ See Booker T. Washington's autobiography, "*Up From Slavery*," 1900.

Sun Ra's entire career can be seen as an attempt to make the impossible happen, to make the world change. Music has never been the sole focus of his interests: in the 1950s he was active politically, heading a nationalist group that urged Blacks to take advantage of new discoveries in science and technology; he attacked organized religion for its passivity in the face of racial oppression.³²

Afrofuturism cannot exist the same as science fiction. The narratives of science fiction do not carry the weight of social oppression because it is not uniquely created to offer messages of resilience, spirituality, self-esteem, or identity in direct regard to Black existence.

The topic of spirituality in Afrofuturism surfaced within the context of a conversation between Greg Tate, a Black music critic, and Mark Dery, the White American writer who coined the term "Afrofuturism." Tate expressed his view of science fiction in the following blockquote. Keep in mind that it is within this very conversation that Dery coined "Afrofuturism," so Tate's response to Dery alludes to an acknowledgment of science fiction from the Black lens:

...continuing a vein of philosophical inquiry and technological speculation that begins with the Egyptians and their incredibly detailed meditations of life after death. SF (sci-fi) represents a kind of rationalist, positivist, scientific codification of that impulse, but it's still coming from black writers, that desire to know the unknowable directs itself toward self-knowledge. Knowing yourself as a black person— historically, spiritually, and culturally— is not something that's given to you, institutionally; it's an arduous journey that must be undertaken by the individual.³³

A second association can be made due to the fact that Afrofuturism is not a genre of music, but a sector of Black American culture; the same way the cultural aesthetics of Rap, streetwear, and lifestyle fall under hip-hop. Afrofuturism is a larger umbrella housing a sector of Black fashion, music, art, and other cultural aesthetics. Afrofuturism is defined in the Cambridge Dictionary as, "A style of literature, music, art, etc. that combines science-fiction elements (stories or ideas about an imagined future) with ideas from the culture and history of Africa and

³² Graham Lock, *Blutopia*, 15.

³³ Mark Dery, "Black to the Future: Interviews with Samuel R. Delany, Greg Tate, and Tricia Rose," in *Flame Wars: The Discourse of Cyberculture* (Duke University Press, 1994). <https://doi.org/10.2307/j.ctv1220m2w.3.210>.

African people.”³⁴ And, in a HuffPost article, “What the Heck is Afrofuturism?” written by Jamie Broadnax, Afrofuturism is defined as “...the reimagining of a future filled with arts, science, and technology seen through a black lens.”³⁵

The culture of Hip-hop houses Rap music. But, what is the name of the style of music that Afrofuturism houses? There is a genre called Afropunk, a term coined by a 2003 documentary entitled “Afro-Punk” directed by James Spooner. But, Afropunk is not a genre of music, although Afropunk artists are typically black and not afraid of making guitars scream while rapping to a blast beat.³⁶ Afropunk is described as a cultural movement of Black people and other minorities in simple terms. Surprisingly, after 19 years, it is still not included in a major dictionary. *Black artists* who create futuristic-sounding music are all seated in a bowl as Afrofuturist artists. But, the music alone has no widely known definition or defined *style*. As you can hear, Sun Ra, Herbie Hancock, and Janelle Monáe are black artists who sound nothing alike, even though they are all considered Afrofuturists. In my opinion, Janelle Monáe has been accurately considered to be under both Afrofuturism and Afropunk. Ask the question, “What does Afrofuturism music sound like?” and you will probably receive varying indefinite answers.

Believe it or not, there is now Africanfuturism due to Afrofuturism being coined a term by— and through the gaze of — a white American writer named Mark Dery.³⁷ In his 1993 essay, “Black to the Future: Interviews with Samuel Delany, Greg Tate, and Tricia Rose,” Dery writes:

³⁴ Definition of Afrofuturism from the Cambridge Advanced Learner's Dictionary & Thesaurus © Cambridge University Press.

³⁵ Jamie Broadnax. “What the Heck is Afrofuturism?” 2018.

https://www.huffpost.com/entry/opinion-broadnax-afrofuturism-black-panther_n_5a85f1b9e4b004fc31903b95#:~:te xt=But%20what%20exactly%20is%20Afrofuturism.fiction%20within%20the%20African%20diaspora

³⁶ A drum beat consisting of 16th or 32nd notes, played linearly between the kick, snare, and cymbals. Typically associated with hardcore punk, hardcore metal, and death metal styles.

³⁷ As Jazz was a term coined by White people that Black Jazz musicians wanted to disassociate themselves with, by replacing it with the term “Great Black Music.” Author Nnedi Okorafor and others, have claimed the category Africanfuturism as what true Afrofuturism is, (or should be) because the latter was coined by a White writer named Mark Dery. Okorafor says that the name should emerge from the black lens.

Speculative fiction that treats African-American themes and addresses African-American concerns in the context of twentieth-century technoculture — and, more generally, African-American signification that appropriates images of technology and a prosthetically enhanced future — might for want of a better term, be called “Afrofuturism.”³⁸

Jazz was a term coined by white individuals that some black jazz musicians disassociated themselves from, by replacing it with phrases such as “Great Black Music.” Taken from a 2011 Cambridge Dictionary blog entitled, “Jazz Is a Four-Letter Word,” Hugh Rawson writes about the origin of the word “jazz” as follows:

The first known example of jazz in print comes from 1912, and it involves baseball, not music. Quoting Ben Henderson, a right-handed pitcher for the Portland Beavers in the Pacific Coast League, the *Los Angeles Times* of April 2 reported: “I got a new curve this year . . . I call it the jazz ball because it wobbles and you simply can’t do anything with it.”

From Henderson’s description, his new pitch appears to be what is now known as a knuckle ball, which also wobbles on its way to the plate. But it could also have been a fast curve, which the *Times* referred to as a “jass” ball in its account of the game the next day. Whatever, the new pitch did not help Henderson a lot: he gave up nine hits, four walks, four runs, and lost the game, according to Gerald Cohen’s detailed account of the origins of jazz in his *Comments on Etymology* (October-November, 2005).³⁹

This is an intriguing concept that will need future review in relation to the genre placement of Black Space because it is vital that a black person, a black musician/composer instead, decides the name of this music and how it should be categorized. The music can be placed under Afrofuturism because it considers science and heavy technology in art, and the creators of it are black; therefore, it is created through a Black lens as the definition mandates.

The relationship status between music and healing has been very complicated for centuries. Every music listener has his or her own consciousness that processes music in various

³⁸ Mark Dery, “Black to the Future,” 1993.

³⁹ Hugh Rawson, “Jazz Is a Four-Letter Word,” 2011.

<https://dictionaryblog.cambridge.org/2011/06/27/jazz-is-a-four-letter-word/>

simple and complex ways. Patients can have different results after taking a prescribed drug, but there will always be more new and supportive biological, neurological, and chemical data to support the research of man-made medicine. And, that makes total sense being that we humans are the ones creating the medicine in a laboratory. But, we did not create sound. We can pin that on nature. Music just exists, and we have been, and still are, discovering how to engineer it.

Nevertheless, credible research does not want to depend only on heuristic approaches to understanding how music can help us cope with the stresses of everyday life. Moreover, music is available to everyone, and those outside of academia are allowed to be free-thinkers. There seems to be more research outside of academia that supports the role of actual sound healing practices than there is in institutions such as universities. I believe that is because we simply have not had the technology to prove ancient philosophies or modern-day theories. Also, research in human cognition is always complicated because there are many factors about a person to consider. Today's sound healing practices are often based on ancient theories and philosophies about frequencies and vibrations and are closely associated with religious practices like Buddhism or Shamanism.

The next chapter describes the work of two pioneers in music who have helped guide the ideas and music for this dissertation project: Herbie Hancock and Pauline Oliveros. Included could be some other artists and pioneers, but the work of Hancock and Oliveros stands out in distinctive ways that coincide with mine. I deeply connect with Hancock's music and his perspectives on life. Hancock, who also practices Buddhism, deeply inspires my work through his music and outlook on life. While I do not connect as much with the music of Pauline Oliveros, I admire her work and want to explain how she employs mindfulness in music. These two artists are quite genius.

CHAPTER 2: Inspirations— Hancock And Oliveros

Hancock's *Future 2 Future* project is particularly instructive as an early example of how a significant figure in the jazz world attempted live performances of original compositions using technologies designed to create immersive experiences. The works and concepts of Oliveros are used in this dissertation to demonstrate how composers can achieve and promote mindfulness through the practice of music-making. They continue to inspire my thinking underlying the work presented in this dissertation project.

Hancock in 5.1

Herbie Hancock, born in Chicago in 1940, was a child piano prodigy who performed a Mozart piano concerto with the Chicago Symphony Orchestra at age 11. He began playing jazz in high school, initially influenced by Oscar Peterson and Bill Evans. He also developed a passion for electronics and science, and double-majored in music and electrical engineering at Grinnell College. In 1960, Hancock was discovered by trumpeter Donald Byrd and in 1963, Hancock was invited to join the Miles Davis Quintet. Five years later, Hancock left Davis' quintet and put together a new band called *The Headhunters*. In 1973, they recorded 'Head Hunters' with its crossover hit single "Chameleon," it became the first jazz album to go platinum. Herbie joined with Bill Laswell to collaborate with young hip-hop and techno artists on his 2001 album, *Future 2 Future*.⁴⁰

Future 2 Future is an electronic-jazz album that contains a mixture of acoustic and electronic instruments layered with ambient sounds emitted through drum machines, synthesizers such as the Korg Karma, and turntable scratching. It was initially released in stereo. Some songs were original tunes expressly produced for this project, while others were arrangements of his older tunes. Hancock nudged this album a step further by implementing a tour in surround sound captured on video⁴¹ and released on DVD, allowing viewers the option to listen in either stereo or surround. The *Future 2 Future* live tour required two sound engineers to build the surround

⁴⁰ Biography of Herbie Hancock, taken from his website. <https://www.herbiehancock.com/biography-full-page/>

⁴¹ Hancock, "Future 2 Future - Live," Columbia Music Video, 2002.
<https://www.youtube.com/watch?v=npgJdWrVVEg>

system in each venue. One to work the typical front-of-house mix and the other to work the surrounding system.

In Hancock's *Future 2 Future*, the live show kicks off with a spoken word piece by Hancock on top of a long sustained chord and atmospheric sounds that spin around the room through the speakers. The soundscape of the room then segues into the first song, "Kebero." In this piece, Hancock uses predominantly slow-paced chord progressions played by his keyboardist, Darrell Diaz, while Hancock solos on an acoustic piano (Image 2).

Kebero

Herbie Hancock

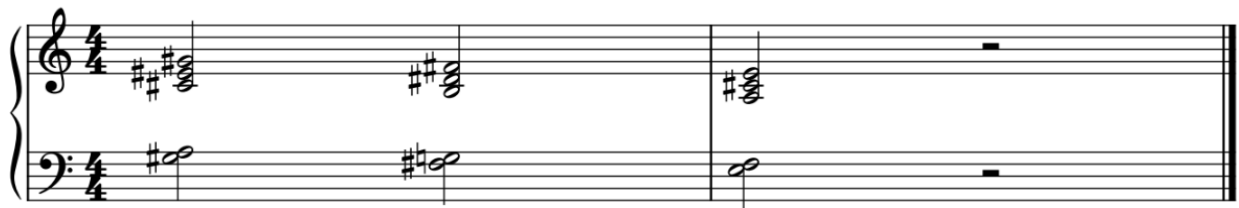


Image 2. Main chord progression for Kebero.

If you count this song as a repetitive two-bar phrase, he only uses three chords over two bars. The tempo is close to 83 beats per minute. But, Terri Lynn Carrington plays a polyrhythmic groove, containing a 3 against 2 feel. Her kick, hi-hat, and ride cymbal all play eighth note triplets and the snare drum cracks on 2 and 4. The kick drum, in my opinion, is the mesmerizing rhythmic oddity because she plays it as two eighth notes in 4/4. So, it has a straight feel that could allow the tune to be transcribed in 4/4 or 6/8. The snare alone does not imply that the groove is actually in 4/4 or 6/8. There's just not enough information for us to know. However, the kick drum does imply that the snare is playing in 4/4. Most people in this position may opt to

write it in 12/8. These kinds of polyrhythms seem to be a very important aspect of meditative sound practices.⁴²

As stated earlier, the *Future 2 Future* tour was in surround sound. This is the largest element of immersion that Hancock included in his live show. The following accounts come from a particularly detailed interview with Dave Hampton, Hancock’s mixing engineer.

In Paul Tingen’s article, “Creating Future2Future & Touring In Surround” for *Sound On Sound* magazine, Hancock and his mixing engineer Dave Hampton go into detail about how they were able to pull off this tour.⁴³ Hancock hired Dave Hampton to maneuver sounds live during the show by using ProTools and a surround joystick. For each show, Hampton installed a surround sound system. Hampton commented, “We have no predetermined surround placements. We leave the moves up to what the music is like on the night — Herbie likes to say that I am the other band member because I improvise according to what happens on stage.”⁴⁴

I want to address some of Hampton’s “concerns, successes, and issues.” One review of the Hancock show is that the surround effect was not that noticeable.⁴⁵ Every venue will acoustically have a different tone condition⁴⁶ and that needs to be taken into consideration when using these sounds in the speakers of these spaces. Hampton also said, “...but the main thing to remember is that in our shows surround is just another effect used in our presentation. At no time

⁴² My background in music brings in the music of other cultures outside of the United States. In genres of music from Cuban bata drumming, Peruvian music, Korean folk drumming and African drumming in Ghana, Guinea, and Senegalese sabar drumming, you will find a lot of the music fitting a 12/8 polyrhythmic feel. Although Brazilian percussion seems to be mostly in 4/4, there’s still a heavy swing that gives us a strong sense of tension and release of time. The music and rhythms feel very circular because of its triplet feel but at the same time the downbeat kind of clouds your head. The music begins to float in a way and I believe that is due to the nature of having a kind of rigid phrase (square perhaps) that is equally divided playing together with a more rounded phrase divided by three (triangular perhaps). Personally, I think playing in any type of polyrhythmic division of 3 is idyllic for anyone wanting to create music to induce separation from more ordinary experiences because it adds complexity to our perception of time.

⁴³ Paul Tingen, “Creating Future2Future & Touring In Surround,” SOS Publications, July 2002.

<https://www.soundonsound.com/people/herbie-hancock>

⁴⁴ Ibid.

⁴⁵ Ibid.

⁴⁶ See Hope Bagenal quote in Chapter III, pg 56.

do I compete with or overpower the main mix.”⁴⁷

Hampton continues with another piece of advice I took into account when working on live performances for this dissertation project, “One of the issues we're still sorting out is that the musicians couldn't hear the surround sound. For future tours, we're looking at a combination of in-ear monitoring and the surround headphone boxes made by Studer or Dolby.”⁴⁸

The use of surround speakers in a venue to help create an immersive experience, while Hancock and his band are performing live on stage, is what makes Hancock different from other jazz artists. We are used to hearing surround sound in movie theaters or from our home theater surround systems. But, a live concert using surround sound that is not a part of an art installation is quite unique. Playing localized sounds from one speaker to another instead of mixing the show in mono creates quite an immersive experience because we are not used to listening to music in this way.⁴⁹

A last important detail to understanding how this album and concert differentiates itself from other types of live, jazz-based musical performance is to also understand a little about Hancock himself. John Schaefer, the host for *New Sounds*, and his interview with Hancock centered around his memoir, *Possibilities*.⁵⁰ In his memoir, Hancock tells about a time when the neighborhood kids would jump him and mess with him until they learned that he played the piano. Hancock recalls a moment in his younger life:

⁴⁷ Paul Tingen, “Creating Future2Future & Touring In Surround,” July 2002.

<https://www.soundonsound.com/people/herbie-hancock>

⁴⁸ Ibid.

⁴⁹ Throughout this dissertation project, I have used the Wenzel, Begault, and Godfroy-Cooper definition of sonic immersion to guide my thinking about live performances and surround sound. They state, “Immersion refers acoustically to sounds as coming from all directions around a listener, which normally is an inevitable consequence of natural human listening in an air medium.” Roginska and Geluso, *Immersive Sound*, 5.

⁵⁰ John Schaefer, “Herbie Hancock Reflects On Buddhism, Beating Addiction, And Butter Notes.” *Soundcheck, New Sounds*, 2014. <https://www.newsounds.org/story/interview-herbie-hancock/>

But once word got out that I could play piano, I found myself in a different category. Playing music changed everything about my life. It gave me purpose, it changed others' perceptions of me, but most important, it changed the way I felt about myself.⁵¹

Looking inward at one's self brings us back to meditation. By understanding himself, Hancock felt empowered. He discovered something about himself that offered purpose and value not just to himself but to those around him.

Pauline Oliveros: A Conscious Approach

There are numerous sound healing practitioners and a growing culture of sound healing. For how this dissertation project connects to sound and contemplation, I examine and discuss aspects of the work by the late Pauline Oliveros.

Oliveros, born in 1932 and passed away in November of 2016, was a professor and musician/composer/pioneer of electronic and experimental music. She was an observer of sound since she was a young child. Oliveros wrote *Software for People*, a collection of writings from 1963 to 1980. In the introduction, she writes, "Although writing prose and speaking to groups was not easy for me, because of my devotion to music and other non-verbal forms I have felt responsible to answer when called upon."⁵² This was her calling, which is similar to preachers who feel that God has ordained them to minister to the public on His behalf. Her understanding of music as a therapy overpowered her uneasiness with writing and speaking to the public. I relate to this personally since I do not like attention, but I do have a strong sense to help others. The more I learn about her, the more I realize how much we have in common.

According to *Software for People*, she wore a lot of hats to earn income. Oliveros and Hancock have a few things in common. Both are very much into meditation, although Hancock

⁵¹ Hancock and Dickey, *Herbie Hancock: Possibilities* (Penguin Publishing Group, 2014).

⁵² Pauline Oliveros, *Software for People: Collected Writings 1963-80* / Pauline Oliveros. 1st ed. (Baltimore, MD: Smith Publications, 1984).

is known to be a devout Buddhist. Oliveros' work involves the sounds of nature, electronics, and anything else that the mind and body can sense, whereas Hancock uses more traditional methods associated with commercial electronic music instruments. She used everything around her in her practice— her environment. It seems like, instead of just being immersed in nature, she pulls nature to her. Oliveros explains:

And natural sounds are also full-range sounds, whereas a lot of electronic sound is not. Car radios or small speaker systems are very focused and localized sources of sound bounded by a narrow audio range. However when you go out into nature, sound is all around you and that immersion brings back a lot of something that's missing.⁵³

But, what is the “that” that is missing? We can never really come to a consensus on what exactly “that” is. Maybe it is different for everyone. Maybe it is all speculation, even though many of us believe that there's a “that” that is missing. We have, in a way, removed ourselves from nature in some sort of hierarchical way that puts us on top because we think that we are supreme beings with consciousness, implying that we are different and separate from other life forms in nature. For decades we have built factories and machines, tilled the land, and created products for our use and convenience, while at the same time understanding little about how to do these things without destroying the earth.

The source material is always there. The words are still there. Oliveros produced a lot of different sounds using sounds of nature that she sampled and manipulated or that she created using synthesizers like the Buchla. Von Glahn states, "Olivero's manipulation of two-channel tape, patching, and delay techniques creates a whole new world..."⁵⁴ and “In moving seamlessly from what appear to be nature sounds to those that suggest something extraterrestrial, Oliveros challenges distinctions between the two spheres even when both are products of technological

⁵³ Denise Von Glahn, *Music and the Skillful Listener: American Women Compose the Natural World* (Bloomington: Indiana University Press, 2013).

⁵⁴ Ibid.

manipulations. A brief consideration of the work suggests the variety of Oliveros's musical responses to the natural world."⁵⁵

In 2005, Oliveros rechristened her Pauline Oliveros Foundation as the Deep Listening Institute. Its mission and purpose is stated on its website:

The Center for Deep Listening at Rensselaer stewards the practice of Deep Listening® pioneered by composer Pauline Oliveros, providing a unique approach to music, literature, art, meditation, technology, and healing. Oliveros describes the practice of Deep Listening as “a way of listening in every possible way to everything possible, to hear no matter what you are doing.” Our mission at the Center for Deep Listening is to foster creative innovation across boundaries and abilities, among artists and audiences, musicians and non-musicians, and children of all ages.⁵⁶

Oliveros wrote a series of twenty-five pieces called *Sonic Meditations* accompanied by her deep listening meditative practice in 1974. The purpose of it was to heal. It breaks down notions of hierarchy and is meant to be practiced by everyone willing to commit to its lifetime practice. The introduction chapter states:

With continuous work, some of the following become possible with Sonic Meditations: Heightened states of awareness or expanded consciousness, changes in physiology and psychology from known and unknown tensions to relaxations which gradually become permanent. These changes may represent a tuning of mind and body. The group may develop positive energy which can influence others who are less experienced. Members of the Group may achieve greater awareness and sensitivity to each other. Music is a welcome by-product of this activity.⁵⁷

Overall, this seems like an activity that helps us cope with our everyday struggles and fears that linger for months and years. In response to the Vietnam War's madness, Oliveros recalled, “I began to retreat. I did not want to play concerts. I began to turn inward.”⁵⁸ Is turning

⁵⁵ Ibid.

⁵⁶ The Center for Deep Listening. <https://www.deeplisting.rpi.edu/>

⁵⁷ Pauline Oliveros, *Sonic Meditations* (United States: Smith Publications, 1974).

⁵⁸ Kerry O'Brien, “Listening as Activism: The ‘Sonic Meditations’ of Pauline Oliveros.” *The New Yorker*, 2016. <https://www.newyorker.com/culture/culture-desk/listening-as-activism-the-sonic-meditations-of-pauline-oliveros>

inwards a natural response of humans when things feel chaotic in their lives? I am no psychologist and dare not go too far in thinking about this. But, what is the “inward” that we’re looking for in response to chaos, struggle, fear, and pain? Oliveros expanded her *Sonic Meditations* score in 1974 by adding, “Healing can occur...when one’s inner experience is made manifest and accepted by others.”

Oliveros documented her research since she started making music. It is admirable of her to continue adding works to *Software for People* over the years and refusing to edit it. New ones should not replace old discoveries as it is an opportunity to see where one has been, where one has gone, and how long it took to get there. It also shows proof of ideas and philosophies that were not just conjured up in a dream or on a whim.

It is important to note that Oliveros also gained the attention of academics as well as the public for her work. She was a pioneer in establishing music's credibility as therapy and meditation as an area of inquiry within the academy. She has influenced a large industry of electronic music creators. The Center for Deep Listening at Rensselaer Polytechnic Institute speaks to the power and credibility of her work.

My Perspective

Hancock and Oliveros have both laid out a blueprint in their practices of using technology and immersion. According to reviews and interviews with Hancock and his engineer, creating a space using surround sound worked in some ways, and in others it did not. Their research informs me of what I should do differently. In addition, Hancock’s tour was twenty years ago, and technology has significantly advanced since then. If an artist attempts to create an immersive experience for contemplation, they should consider starting with composition and production *simultaneously*. Immersion should not be an afterthought or an element added at the

end of the creative process. I believe that Hancock's tour may have been a bit more successful for critics and audiences had there been more intentional planning of an immersive show during the writing and pre-production phase of creating the album.

Hancock's drummer, Terri Lyne Carrington, who was a part of the Future 2 Future tour, does not believe that Hancock intended to create contemplative spaces for the tour. In a personal communication with Carrington, she said that he just likes to experiment with technology.⁵⁹ He never actually spoke to the band about why he wanted to experiment with a surround-sound speaker configuration for the show. During our talk, she watched the tour's last concert online to see if she wore in-ear monitors. As it is disappointing to know that not much thought about how to blend the worlds of musicianship, composition, and immersion went into creating this audio system for the tour, it does show me that intention is essential. The following is a statement by Roginska and Geluso that I agree with about the intention behind creating immersion,

The goal of immersive sound may be to recreate a sound environment that is as close as possible to the real world, or it may be to create an experience that augments the real world and can only exist in the virtual space.⁶⁰

Furthermore, in my work, I would like to create spaces using immersive technologies that influence audiences into contemplative thoughts that bring them to self-actualization.

Within the context of this research, immersive technologies refer to any technology that creates and alters sound to create spaces to mimic other real-world spaces that people use for contemplation, such as cathedrals, amphitheaters, caves, and churches. These spaces contain a fair amount of reverb and may use technologies that can localize sounds in various areas of a room to create real-world experiences. These technologies can include effect processors, virtual reality, augmented reality, and multichannel audio systems. Understanding more about

⁵⁹ Personal communication via phone with Terri Lyne Carrington on July 11, 2022.

⁶⁰ Geluso and Roginska, *Immersive Sound: The Art and Science of Binaural and Multi-Channel Audio* (Taylor and Francis, 2018), 40-62.

contemplation and immersive technologies could help us better understand how music and perception can affect how we think and how we feel about ourselves. It is of interest that continuing this research may contribute to the advancement in other fields deepening our understanding of mental health.

CHAPTER 3: Eunoia, Thoughts on Presence and Technology

This chapter connects concepts on how composing meditation music, with the assistance of technology, can aid as an antidote to topics presented in Chapter I, which explains the importance of cultivating a grander sense of black identity and self-esteem through creating space. This chapter begins with how this discussion informs the concept and foundation of eunoia and the advancement of Black Space as a recognized genre of music that incorporates any type of technology that creates a perception of space. Next, it moves into topics on sound spatialization and presence, and then concludes with related ideas on reflection.

Eunoia

Eunoia Society, a music ensemble, was assembled to support a general aspect of the intention behind this work. Taken from the Cambridge Dictionary, the definition of “eunoia” means:

A feeling of goodwill (being friendly and wanting to help), especially one that exists between a speaker and an audience: The speaker must also exhibit ethos, which for Aristotle encompasses wisdom (phronesis), virtue (arete), and goodwill (eunoia). In rhetoric, eunoia is the goodwill a speaker cultivates between themselves and their audience, a condition of receptivity.⁶¹

Concerning this project, Eunoia Society’s live performances could cultivate conditions of receptivity. Helping the audience reach the state of eunoia is the first goal. Music could be an eminent antidote to the impacts of unconscious bias, and music seems to make people feel good naturally. However, getting the audience to feel good is not the end goal— contemplation⁶² is.

⁶¹ Cambridge Advanced Learner's Dictionary & Thesaurus. Cambridge University Press) (“EUNOIA | definition in the Cambridge English Dictionary,” n.d.)

⁶² For this chapter, I will use the word contemplative instead of meditative for the sake of simplicity, except when necessary.

Consequently, eunoia could be considered the gateway to contemplation through music, and the act of causing eunoia could be regarded as activism to facilitate social change.

In *Teaching to Transgress*, bell hooks wrote about the teacher-student relationship and the role of teaching as a performative act. The teacher-student relationship reflects no different than a performer-audience relationship. She wrote,

Teaching is a performative act. And it is that aspect of our work that offers the space for change, invention, spontaneous shifts, that can serve as a catalyst drawing out the unique elements in each classroom. To embrace the performative aspect of teaching we are compelled to engage “audiences,” to consider issues of reciprocity. Teachers are not performers in the traditional sense of the word in that our work is not meant to be a spectacle. Yet it is meant to serve as a catalyst that calls everyone to become more and more engaged, to become active participants in learning.⁶³

Her explanation of this relationship and the role of teaching mimics that of eunoia. She also makes a distinction between teaching and performing. By replacing a few of her words in the last sentence of the quote above, it could be repurposed to read as, “the music of Eunoia Society is meant to serve as a catalyst that calls audiences to become more and more engaged, to become active participants in contemplation.” Fig. 1 shows how eunoia formulates.

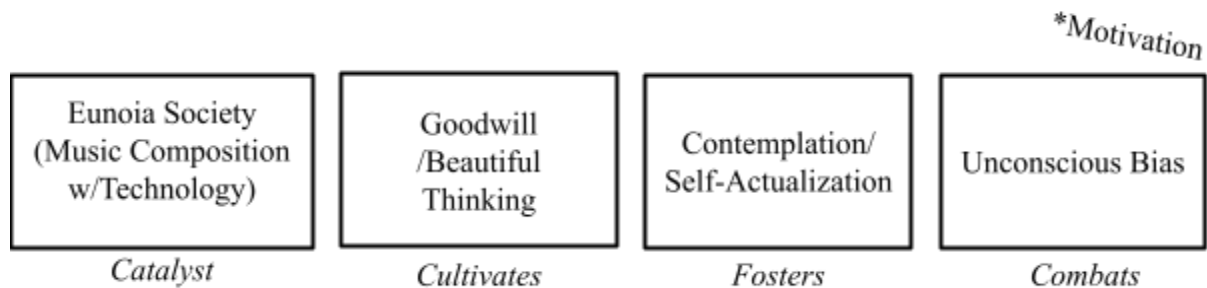


Figure 1. Eunoia: Performer to Audience Loop

⁶³ hooks, *Teaching to Transgress*, 11.

The diagram shows that the motivation of this research is a desire to help people combat unconscious bias and the tool to trigger the process is composition. The ensemble plays contemplative compositions in front of an audience (in person or telematically), using high-end technologies (that can create the perception of space), to serve as a catalyst to cultivate goodwill between the ensemble and its audience, which fosters contemplation and self-actualization which combats unconscious bias.

In addressing motivation in Figure 1, this research assumes that a black composer would have the desire to create *Black Space* with intention because this music serves such a strong purpose in assisting people in embracing their identities through composition. Educators probably hear their students say “I can’t do it” or “I don’t belong here” or “girls don’t do that” more often than not. While many people in society will discourage young people from saying the word “can’t,” there is unspoken and misguided encouragement to tell boys and girls what they can and cannot do simply based on gender. This is where we must take more care.

Low self-esteem of black people explained by bell hooks is the reason why this research exists:

Throughout this nation, black people are experiencing a spiritual crisis. We are joined in this crisis by all who love justice, who yearn for peace, and long to live freely. This crisis is for many folks a crisis of values. Longtime believers in freedom and justice, many black folks have betrayed these beliefs in the interest of getting ahead, material gain, and the trappings of success.⁶⁴

The spiritual crisis that hooks writes about is what compels this research. Art is created for various intentional reasons. While some artists are driven to be socially responsible, it is not the responsibility of artists to be social or political activists. You must be unselfish and compelled to care about the audience in more profound ways than just entertaining them.

⁶⁴ bell hooks, *Rock My Soul*, 215.

Maslow writes,

Self-actualizing people are, without one single exception, involved in a cause outside their own skin, in something outside of themselves. They are devoted, working at something, something which is very precious to them -- some calling or vocation in the old sense, the priestly sense. They are working at something which fate has called them to somehow and which they work at and which they love, so that the work-joy dichotomy there disappears.⁶⁵

The word *eunoia* accurately describes how the music of this research aims to affect its audience by cultivating goodwill and creating space for them to contemplate. An ensemble was created to perform the music associated with the concepts central to this research. The ensemble is appropriately named *Eunoia Society*. In the ensemble's description, it states:

Armstrong's work interrogates contemporary music's usage of time-based processing, repetition, and drones. Her research is partially informed by how and why ancient societies may have performed their rituals and ceremonies in caves. Caves contain reflective surfaces that acoustical architects have replicated in the construction of amphitheaters, cathedrals, auditoriums, and other venues. Since people practiced spirituality in caves, time-based processing, such as reverb and delay, has become a part of Armstrong's compositional and production work.

The ensemble demonstrates working models of how composers, including beat-makers, can explore techniques for creating music for immersive environments such as multi-channel speaker arrays for spatial performances and performing within augmented spaces such as virtual reality. Possessing an innovative and audacious spirit, *Eunoia* utilizes the latest technological advances in audio while composing music that entertains its audiences.⁶⁶

To entertain an audience could mean many different things. Within the scope of this research, "to entertain" means recognizing that music venues are not designed for traditional meditative practice. The music will do its best to transform these spaces to trigger contemplation. But, the audiences are not expected to lay on yoga mats, chant in silence, or fall asleep. The expectation is that audiences may want to eat, laugh, cry, or drink. They may want to dance. *Eunoia Society* will use a balance between its very own purpose of triggering contemplation

⁶⁵ Abraham Maslow, *Self-Actualization and Beyond*.

⁶⁶ JoVia Armstrong, 2022, <http://www.EunoiaSociety.com>.

while also navigating the business practices of the music industry.

The Flow in which Composition Triggers Contemplation

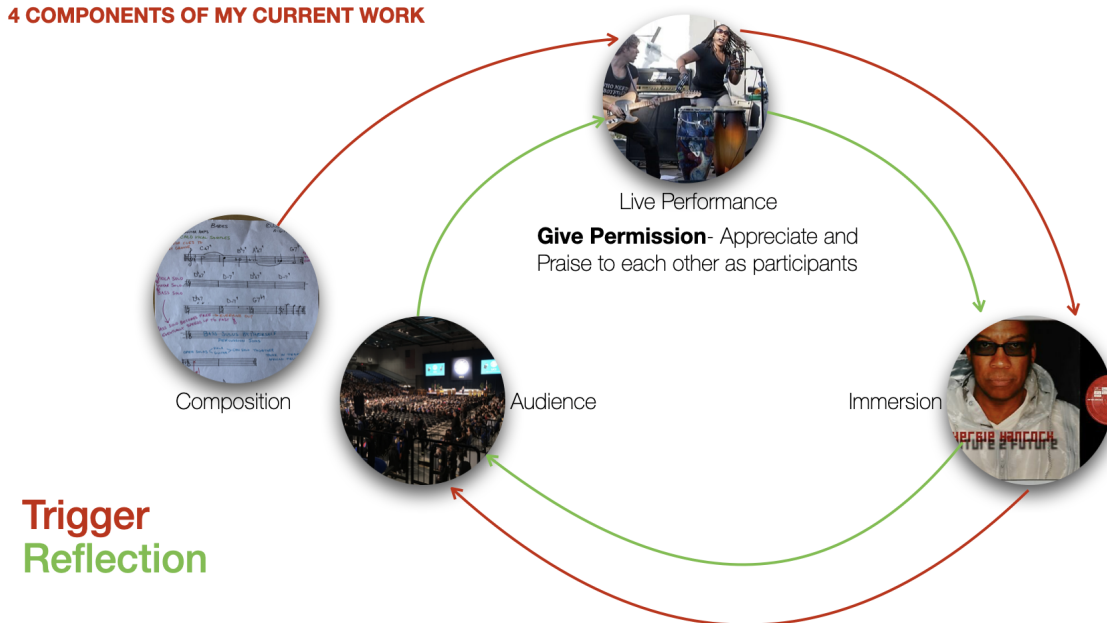


Figure 2: Four Components Of The Workflow To Achieve Introspection And Eunoia.

Fig. 2 is a graph showing how composition triggers the flow of introspection and cultivates a space of *eunoia*. The explanation of what is happening in the flow chart above in Fig. 2, the composition and performance are what initiates *eunoia*. The composition is the trigger to create *eunoia* and cultivate introspection. Within the compositional works, you find the meditative elements of music: drones and repetition, for example. First and foremost, these elements need to exist within the composition if the goal is for the listener to engage in contemplation.

The compositions are performed live in front of an audience. During this live performance, the musicians all use various effect pedals live to create atmospheric effects,

especially reverb and delay. This live performance also incorporates improvisation, which offers space for the music to breathe while entertaining the audience. This is the necessary formula to create immersion for the live show.

Immersion can be further enhanced through the use of multi-channel speaker systems. The audience's energy feeds back into the live performance/performers, which creates a cycle that resembles a feedback loop. Referring back to Fig. 2, the green arrow depicts a loop. Eunoia could be cultivated, as a kind of loop, through call and response—a prominent feature of black music.

In the context of this research, eunoia is coupled with introspection, which looks no different from a pastor preaching in front of his congregation. Not all of us attend church or participate in religion, of course, but music is all around us, and a great majority of us listen to music and attend concerts. Music seems to be a universal language of spirituality without being about religion. If a black artist wants to have a great show, wants their audience to feel amazing, and wants simply to help people be less miserable, then they should intentionally create Black Space to help combat the oppression that pushes against us.

On Presence

James J. Gibson defines *presence* in the most unadorned terms: “*Presence is defined as the sense of being in an environment.*”⁶⁷ Could this mean that presence *only* exists in our psyche because our senses are realized? (Or, is it a sensory view of the environment?) Each of our five senses can tell us about our environment. Virtual and alternate realities seem to allow us a duality of presence or existence.

⁶⁷ J. J. Gibson, *The Ecological Approach To Visual Perception*, 1979. Note: “Presence” as used here refers to the experience of *natural* surroundings; that is, surroundings to describe the *mediated* experience of a physical environment.

Gibson's definition suggests that presence or the *sense* of being in an environment can happen in both virtual and real worlds. It seems that we are simultaneously in *the* real world and *a* virtual world. This duality and possibility of being in two places at once, knowing that one place is probably not real, is quite fascinating to me. In one of the most widely cited early articles on immersion and presence, John Steuer, the author of *Defining Virtual Reality*, writes:

In unmediated perception, presence is taken for granted— what could one experience other than one's immediate physical surroundings? However, when perception is mediated by a communication technology, one is forced to perceive *two* separate environments simultaneously: the physical environment in which one is actually present, and the environment presented via the medium.⁶⁸

Steuer, offers a more direct definition of presence as well:

Presence can be thought of as the experience of one's physical environment; it refers not to one's surroundings as they exist in the physical world, but to the perception of those surroundings as mediated by both automatic and controlled mental processes.⁶⁹

In *Future Presence*, a book by Peter Rubin concerning how virtual reality impacts human connection, virtual reality is defined as “(1) an artificial environment that's (2) immersive enough (3) to convince you that you're actually inside it.”⁷⁰ While this chapter is not about virtual reality, the last two points of Rubin's definition fit how I consider immersion. I aim to use immersion to heighten the audience's experience of attaining various levels of introspection. I argue that immersion in music maximizes and recognizes the whole somatic experience. It

⁶⁸ Jonathan Steuer, “Defining Virtual Reality: Dimensions Determining Telepresence,” in *Journal of Communication*, Volume 42, Issue 4, December 1992, Pages 73–93.

<https://doi.org/10.1111/j.1460-2466.1992.tb00812.x> For the purposes of this paper, a “communication technology” can be defined as any means of representing information across space or across time. “Mediated communication” and “mediated experience” are therefore considered to be essentially equivalent. Again, this is a very broad definition that differs from many typical views.

⁶⁹ Steuer, *Defining Virtual Reality*, 5.

⁷⁰ Peter Rubin, *Future Presence: How Virtual Reality Is Changing Human Connection, Intimacy, and the Limits of Ordinary Life* (United States: HarperCollins Publishers, 2020), 28.

inherently links the physical spaces we are in with the perception of the spaces we believe we are in.

We should recognize that each space is unique, just as each person is. So, we may say that spaces containing immersion have individuality due to the materiality of each particular space and because each person's sensorial perceptions are different within the same physical spaces.

Presence, Reflections, and Parallel Processing

Sound spatialization is an element that can be used to create immersive experiences. But there are extra-musical and often economic factors to consider: creating immersive performance spaces can be technically challenging and require a large budget. Some immersive performances utilize surround sound systems, while others may incorporate hundreds of speakers. This, of course, can be very expensive. When economics are a significant factor in a project, disenfranchised communities often miss out on experiencing those projects. But it is these communities that this study is attempting to reach. If the budget is an issue, then a heavier weight is on the shoulders of the compositional work. It is noteworthy that most small or local venues will not have more than 2-5 speakers (including one or two subwoofers) for the audience. Performing arts centers may have more, but most large or small venues will often run the entire show in mono. The lack of a budget to obtain many speakers and multichannel systems is why my work for this dissertation project places more emphasis on the compositional elements of the music.

Black communities are already disenfranchised, so it is safe to assume that the few venues standing in these communities will not have high-end, multi-channel audio systems. If this introspective work is to catch the attention of a black audience in black communities, then it

is imperative to place more emphasis on the composition as being the central vehicle for creating introspective experiences.

Also important to mention is the significance of and dependence on musicians willingness to experiment in immersive spaces. It is not easy to play in a space where musical time is affected by time-based processing effects— time being one of the most important attributes that ensembles depend on when playing together. So, the willingness of musicians to experiment is of utmost importance for this to work. The number of speakers present, the shape of the space the performance takes place in, and the materials inside the space should also be considered. But again, do not depend on booking shows in venues with multichannel systems to trigger contemplation— these venues rarely exist. Triggering contemplation should depend on the composition. And, no venue will be the same as another. This research does not present a solution to address the issue of not having an economically-viable, standardized multichannel sound system to compose for.⁷¹ There could be solutions if venues and the public wants it. This research hopes to encourage creative solutions by expressing the importance of this music.

Multichannel speaker systems will help us localize the sounds from the ensemble. Where the sounds, melodies, or sound objects sit or fly around should be considered during the writing phase of the composition. The musicians should use FX processing, especially heavy uses of time-based processing, to work towards creating immersive musical experiences.

Attaining immersion is never guaranteed, though. Individual audience perception is also a factor. Gascia Ouzounian's *Stereophonica: Sound and Space in Science, Technology, and the Arts* offers a thorough history of spatialized audio. In examining texts, techniques and concepts of

⁷¹ There are multichannel audio formats that are designed to represent sound in 3D without being dependent on the specifics of a sound system, e.g. the Ambisonics format.

early experimental systems of spatialization by practitioners such as Iannis Xenakis and Edgard Varèse, Ouzounian articulates a conclusion in regards to audiences of spatial music concerts:

The audiences of spatial music concerts were not necessarily imagined in active or productive terms, but more typically as “recipients” of music, in line with conventional models of concert listening. However, the focus on the movement of sounds in space as a compositional parameter drew attention to the fact that every listener has a unique experience of a composition depending on his or her position in the auditorium, and that a work cannot be fully appreciated outside of the particular, contingent situations of listening.⁷²

While this statement is not directly applicable to immersion and its perception, it speaks to the fact that every listener has a unique experience. Regarding this research, we can conclude that each listener may sense different levels of immersion, high or low, depending on various factors, including the listening/performance space. Some may not sense immersion at all. Ultimately, perceiving immersion is out of the composer’s control. FX processing, though, still retains a key role— after the composition itself— in cultivating introspection. If musicians use a wild amount of reverb and other effects, immersion is used to heighten the effect. However, a person must perceive the immersion to experience it. For example, a person could stand in a church sanctuary but coax themselves into perceiving that they are present in another place.

Reflecting and Parallel Processing

Having discussed the more historically recent topics of immersion, sound spatialization, and (tele-)presence, I turn back to and revisit a discussion on the immersive qualities of caves and how this ties into the discussion so far.

Caves have a mysterious and mystical presence. They can be large or small, and when you’re surrounded by darkness, the large or small size matters. To add, we never know what is waiting inside for us since there are no doors to keep others out. They also can serve as dwelling

⁷² Gascia Ouzounian, *Stereophonica: Sound and Space in Science, Technology, and the Arts* (United States: MIT Press, 2021), 110.

spaces and offer protection from nasty weather. Prehistoric societies used them as places for rituals, worship, and ceremonies. Today, we may not use actual caves to worship, but as society continues to modernize, we often design and construct spaces that mimic the sound of caves. We can find the mysticism of caves in today's amphitheaters, cathedrals, auditoriums, concert halls, theaters, and other venues. The connector between yesterday's caves and today's venues is reverberation. In *Immersive Sound: The Art and Science of Binaural and Multi-Channel Audio*, Braxton Boren writes:

Hope Bagenal famously stated that the acoustics of all auditoria originated from either the open air or the cave (Bagenal, 1951). For the case of our earliest ancestors this was literally true as they spent most of their time hunting and gathering in outdoor environments that approximated free field listening conditions. Their 3D sound localization was honed in this largely non-reverberant context, allowing them to evade predators and find their own prey.

However, when these early hunter-gatherers stepped inside the diffuse sound field of a cave, they would have found an acoustic environment wholly different from that outside. The reflective walls and enclosed spaces would have generated audible echoes, modal resonances, and reverberation— causing listeners to be surrounded by thousands of copies of their own voices, an immersive, amplified, and somewhat mystical experience.⁷³

Bagenal and Boren bring up two key points concerning how introspection could be induced in acoustical environments: one involves the open air, and the other presents listeners as being surrounded by their own voices. The latter is speakers *listening* to themselves (i.e., the reflections) while *speaking* to themselves.⁷⁴ Imagine a person praying aloud, voicing their thoughts in the open to hear answers. Do they perceive their reflective voices to be the voice of God, in other words, those somewhat mystical experiences Boren alludes to? I believe contemplation works in these acoustical environments because they offer us experiences of *time*

⁷³ Braxton Boren, "History of 3D Sound," in *Immersive Sound: The Art and Science of Binaural and Multi-Channel Audio* (New York: Routledge, 2017), 41. <https://doi.org/10.4324/9781315707525>

⁷⁴ There is supporting research that talking to yourself is healthy and help people get through life's struggles and can be motivational when facing challenges in activities such as sport competitions or accomplishing other goals.

and *space*— both key properties of cave-like environments— to hear and listen to our own voices as a dialog with ourselves, giving ourselves a chance to acoustically and mentally reflect on our thoughts through voice.

I also interpret, metaphorically, that going inside the cave resembles going inside the mind. When we stand in specific areas of reverberant rooms, we hear our voices more clearly than in others. In other areas, our voices are blurred and unclear, much like moments of mental reflection and contemplation. Reverberation depends on a space's shape, surface, and time. So, if we stand in the right spot and at the right time, we can distinctly hear our voices. For example, we might stand in the right spot at the wrong time, which can expose what is unclear. All of this is an experience analogous to talking to your soul.

For this project, reverb and other effects are artificially created using guitar pedals and software. Each musician must be well-versed in using their equipment, since the idea is to try using the same effects each time we play. It is important to me to also convey to the musicians the idea that applying effects to instruments, for this project, is conceptually similar to what an acoustical space does to a sound being produced within it.⁷⁵ In “Musical Taste and Concert Hall Design,” Hope Bagenal describes acoustic surroundings, or as he calls it, the *tone conditions* in a building, as being musical instruments:

In the general historical survey the building has always been the formative factor acoustically. It is as if the musician has been content to carry himself and his instrument, lightheartedly, into any place of assembly whatever, and do the best he can. But if he stays in it for long he will react to its tone conditions; it may become a temporary 'home'-itself something of a musical instrument-and may contribute towards artistic results. Also listeners may get used to it and take its tonality as some kind of standard. Or its tonality may be so extreme and unadaptable that music within it may come to a limited perfection and there have to stop, unable to develop further.⁷⁶

⁷⁵ Similar to source-excitation models of computer-simulated acoustical instruments and spaces.

⁷⁶ Hope Bagenal, “Musical Taste and Concert Hall Design,” in *Proceedings of the Royal Musical Association*, 78 (1951), 11. <http://www.jstor.org/stable/766044>

Because we rely on a kind of parallel processing⁷⁷, when each musician plays their instrument, we split the signal to hear one as the dry signal while we listen to the other as the affected/wet signal (i.e., tone conditions, to borrow from Bagenal). We can think of them as separate instruments since the sounds are distinct enough and on independent channels. Practically speaking, separating the dry from the wet “instruments” akin to a voice with magnitudes of time-shifted reflections allows for the greatest amount of flexibility when trying to engineer and produce the kind of listening experience I am going for in this project— the contemplative experience.⁷⁸ In the next chapter, I will discuss in more detail how this dissertation project brings music composition and the contemplative experience together.

⁷⁷ For example, two channels of audio playing simultaneously but one being the dry signal and the other being the wet signal.

⁷⁸ Eunoia Society will need to work with a dedicated sound person for live shows to effectively engineer this kind of parallel processing of wet and dry signals.

Chapter 4: Contemplative Music

This chapter explains what it means to meditate or contemplate, how meditation and music work together, and how to construct this music, Black Space.

Definitions

Standard dictionary definitions of what it means to meditate are a starting point for discussing the meditative experience of the music. Here are a couple of definitions from the Merriam-Webster Dictionary:⁷⁹

1. to engage in contemplation or reflection
2. to engage in mental exercise (such as concentration on one's breathing or repetition of a mantra) for the purpose of reaching a heightened level of spiritual awareness.

The first of these dictionary definitions directly references contemplation, as if interchangeable with meditation. I believe we contemplate at times because we intrinsically seek balance and stability. When something is or feels off, we often weigh and evaluate our choices and options in life. Although some choices may be life-altering, here we are speaking about choices resulting from contemplation within musical experiences, which *could* also affect someone's life. Oftentimes, though, it can seem that the effects of listening to music make us feel good only in the moment or for the day. In other words, the effects are short-lived. Music, then, seems to be something we would need to “take” daily, like a vitamin. A daily supplement to help us contemplate and reflect— to meditate— to seek balance and stability.

One might also consider, however, the longer-term effects of the music experience. In *Music as Medicine: The History of Music Therapy Since Antiquity*, Peregrine Horden writes:

At various times and in various cultures over the past two and a half millennia— and probably still further back in time— music has been medicine. Performing or

⁷⁹ Merriam-Webster.com Dictionary, s.v. “meditation.” <https://www.merriam-webster.com/dictionary/meditation>

listening to music have variously been thought to achieve something more than arousal or entertainment; something different from, though often related to, enhanced spiritual awareness; something that beneficially outlasts the performance— that maintains or restores the health of mind and, even, body.⁸⁰

This outlasting effect, possibly related to enhanced spiritual awareness, speaks to the second definition of meditation stated above, suggesting we “engage in mental exercise” to reach a heightened level of spiritual awareness. Lock reminds us that Sun Ra had songs entitled “Medicine for a Nightmare” and “Cosmic Tones for Mental Therapy,” explicitly referencing music’s therapeutic and medicinal possibilities.⁸¹

Back to the first Merriam-Webster’s definition for *meditation*: contemplation. Logically, it seems worthwhile to examine the definition of *contemplation*, as it is often used interchangeably with meditation. The original definition of the word, according to Merriam-Webster⁸² means:

1. concentration on spiritual things as a form of private devotion
2. a state of mystical awareness of God's being

The American English definition, taken from the Collins dictionary, states:⁸³

1. to look at or view with continued attention; observe or study thoughtfully— *to contemplate the stars*
2. to consider thoroughly; think fully or deeply about— *to contemplate a difficult problem*
3. to have as a purpose; intend
4. to have in view as a future event— *to contemplate buying a new car*

All four of Collins’ definitions cover most subjects that we contemplate in our current times. Relating this to the outcomes I’m hoping to achieve as a result of the research for this dissertation project, I associate contemplating with what I refer to as *inner-personal* work. I hope that through a better understanding of how this inner-personal work is practiced, we can learn to

⁸⁰ Peregrine Horden, *Music as Medicine: The History of Music Therapy Since Antiquity* (United Kingdom: Taylor & Francis, 2017), 1.

⁸¹ Lock. “*Astro Black Mythology*,” 13.

⁸² <https://www.merriam-webster.com/dictionary/contemplation>

⁸³ <https://www.collinsdictionary.com/dictionary/english/contemplate>

observe ourselves better to consider different angles for complex problems, understand our purpose, and have in view who we want to be— all for the larger goal of deepening the understanding of our identities. In *An Introduction to Buddhism*, the Dalai Lama writes:

In Buddhism, when we speak of gaining deeper and deeper levels of spiritual realization, this also implies a correspondingly progressive overcoming of the various levels of mental obscurations or defilements. In the initial stages our spiritual practices enable us to temporarily overwhelm our negative impulses and in this way help to reduce their force. Eventually, through sustained practice, we can totally eliminate these defilements.⁸⁴

Is there a way in which music can be designed— through concepts and techniques— to aid in overwhelming the negative impulses? That is what I'm seeking to explore as a central part of this project.

Reflection and Contemplative Elements of Music

Chanting, droning, and repetitive sounds are considered attributes of various meditative sonic and musical practices and trance-inducing music. Drones and trance music have been central to meditative practices in India, Africa, Native America, and many other countries and cultures of the world. And, we have tools to emulate reverb and possibly other effects that reproduce acoustical spaces associated with meditative practices, churches, mosques, caves, etc. Although five pieces are featured in this writing, the entirety of the music related to this dissertation project consists of ten songs⁸⁵, composed and recorded as examples of how composers could use the aforementioned attributes to create works meant to offer audience members moments of introspection, a possible precondition for meditative experiences.

⁸⁴ Bstan-'dzin-rgya-mtsho, *An Introduction to Buddhism: Core Teachings of the Dalai Lama* (Boulder: Shambhala, 2018), 23.

⁸⁵ Throughout this chapter the terms works, songs, and tunes will be interchangeable.

In the creative process of these works, it is essential to document and write about the concepts underlying these songs to exhibit ways to use select elements of meditative sonic and musical practices to encourage listeners to experience moments of contemplation. This documentation could be a road map for others to follow, just as a music score would. It would be bold to say that maybe the music in this dissertation project could represent a new genre of Black meditative music that rests beneath the umbrella of Afrofuturism. The music documented in this research could even define this genre once and for all. We have heard plenty of Black spiritual music, which includes Gospel, Negro Spirituals, and the works of artists such as Sun Ra, John Coltrane, and Alice Coltrane. Although these works are not completely in contrast to the music of the great artists just mentioned, this research demands composers to use musical elements that can lead to meditative experiences as a *deliberate action* that implores our audiences to focus inward.

It would be well beyond this project's scope to present a comprehensive discussion of the connection between meditation and music. But, it is instructive to start with ideas on meditation from one of the global leaders of Buddhism, His Holiness the Dalai Lama. In *An Introduction to Buddhism*, he explains three levels of *understanding*. Meditation is the third level:

“...experiential, and this is referred to in the Buddhist texts as an understanding derived through meditative experience.”⁸⁶

A “meditative experience” is precisely the goal of the music in this project. But, if that is the third level, have I shortcut some kind of process by skipping the first two levels? His Holiness explains the first level of understanding as grounded in intellect: “On the basis of study and learning... we deepen our understanding of a given topic by constantly reflecting upon it until we arrive at a point where we gain a high degree of certainty or conviction that is firmly

⁸⁶ Bstan-'dzin-rgya-mtsho, *An Introduction to Buddhism*, 2.

grounded in reason.”⁸⁷ And the second level of understanding is, in part, constant contemplation: “If we pursue this understanding further and deepen it through constant contemplation and familiarity with the truth, we reach a point where we feel the impact at the emotional level. In other words, our conviction is no longer at the level of mere intellect.”⁸⁸

What steps within the process of creating these songs could constitute the initial and first level of grounding the work in intellect? Has the need to constantly contemplate the intellectual aspects of the work to “feel the impact at the emotional level” been addressed? While not answering these questions directly, they continue to serve as the broadest guiding thoughts in exploring a genre of meditative music through this project. The third level—the meditative experience—is the ultimate goal for this music to trigger contemplative thoughts.

Some contemplation begets an action. Lock includes an October 1983 interview with Sun Ra, titled “I Like All the Sounds That Upset People.” Lock asks Sun Ra, “You think music can spur people into action?” Sun Ra’s response holds true in today’s society (possibly in worse conditions):

SR: Of course it can. It’s just...you have a lot of commercial folks on this planet who took the music and used it to make money, but no people have heard so much of that music they’ve been stoned with sound. But the spirit, it gets very little food I’d say. And the spirit needs something too. It says, “What about? I need some beautiful music or beautiful poetry.” I think the people on this planet are starving their spiritual selves. See, music is a spiritual language, ‘n’ that’s what I have to offer, so I’m gonna put it out there and maybe people will do somethin’ right. They may not want to, but they be *compelled* to (chuckles).⁸⁹

It is the “compelling” to be self-actualized that the music of this research wishes to instill in audiences, through contemplation— at their own will and when the time is right for them, of course. There are many people, scholars and listeners alike, who are not interested in Sun Ra’s

⁸⁷ Ibid.

⁸⁸ Ibid.

⁸⁹ Lock, Graham. *Astro Black Mythology*, 17.

beliefs. But, whether you consider your spirit, soul, or consciousness to be the entity that moves you through life or not, we all have parts of our lives that need contemplative attention or “food.”

Sun Ra speaks about feeding our spirit selves. On one hand, people who consider themselves to be religious or spiritual will know exactly what he means. Those who do not consider themselves to be spiritual can take this to simply mean that you have to take care of your mental health. Sun Ra, who is not a medical practitioner, offers music as a way to feed the soul, just as this project does.

This research identifies the main elements for creating meditative, inward-seeking, and uplifting music, and encourages other music composers to discover other elements. Because there exist genres and practices of music that are made to induce trance-induced states, we already have an idea of some common elements. Those elements so far have been identified throughout this chapter as repetition, drones, and other long tones. By using these elements, especially within the canon of jazz and free jazz, there is a great opportunity to encourage audience members to experience moments of contemplation. It is in my own beliefs that listening to this music will help Black America desire freedom— freedom to be who and what they want to be which directly relates to identity or self-actuality— which includes freedom from suffering.

Repetition is a major element in triggering a trance-inducing state. A rhythmic pattern can be played repeatedly in an attempt to induce a trance state. How it works is that the drum plays the same pattern over and over again which makes it predictable. And, if we perceive something to be predictable, we no longer have as much of a need to pay attention to it. Because we know what will happen next, our mind is free to think about something else. But, we are taught to use this free-thinking to look inward and focus on our breath.

Another element often found in meditative music is long sustained tones or drones.

Often, in meditative music we hear today, the drone will be a chord created by a synth pad patch. The instruments found in synthesizers are sometimes referred to as patches. Some patches have very slow attacks and they may take a full second to reach its decay and sustain, like a “soft synth” patch or strings. And some instruments are categorized as “pads” and others will have the name “Soft Strings” or “Soft Pad,” to inform you of the patch’s character. Padding is what keyboardists do when they are using soft pad synth patches to play chords. The chord will stay the same for the entire song or the chord changes will move very slowly. In the case of music associated with the globalized practice of Yoga, the chords are played in a non-aggressive manner, where the attacks of the patches are “soft.” In gospel music, drones are normally played by the organ in which one note may contain rich harmonics. The same is true for the tampingura of North Indian music. Ostinatos in the basslines or other instruments are common ways in which drones can be established.

Harmonic movement could satisfy the function of a drone, although the chord changes may need to be subtle and few. An initial timbral choice is often a soft acoustic piano. Approaches to meditative music that rely on chordal movement often stick to just one to two chords. The chords are often “elongated” in time to produce a drone effect. Some may augment the elongated chords by including other ornamental sounds, but they rarely disturb the calmness implied by the relative stasis in the music. In my view, drones represent infinity in a moment of time.

Most of the reverberation we hear in today’s music is digitally reproduced, but it has its origins in our acoustical experience of the world. Referring back to the Braxton Boren quote in Chapter III’s section under “Reflecting and Parallel Processing,” our prehistoric ancestors would

have been familiar with the reverberant qualities of caves, of course.⁹⁰ But, what's so special about caves? I believe that this sound of reverb and delay enhances one's ability to experience contemplation. There's a connection between these two effects— delay and reverb— and the notion of lost time when we go into these states. They are called time-based processors for a reason!

What I believe Boren is also implying here is that in prehistoric times, we lived in immersion and had a more heightened understanding of the difference between listening outside in the open air and listening in a cave. These days, it seems that while our surroundings continue to speak to us, we are not listening as deeply. But most of all, I am not sure we are as present and connected within ourselves and to each other.

Five Considerations for Creating Musically Induced Contemplation

Composition, created through the black lens, as a whole is the provocateur of introspection. Identifying black music for triggering introspection implies that this music exists by way of the creative expressions of black artists and composers. Drones, repetitive melodies and rhythms, and arpeggios are critical elements of Black Space introspection. Once again, arpeggiation entered this work later during the process and will be featured more on Eunoia Society's forthcoming third album.

The music of this research nestles in the spirit of jazz to trigger introspection. Jazz allows musicians and composers much space to create without considering typical song structure, allowing the music to move from one emotion to another. There is a sense of liberation that jazz nurtures, which may be why there are so many jazz subgenres— jazz can go in any direction, depending on the creativity of the composer and performer. The music uses considerable

⁹⁰ In fact, there are archeological sites, such as the Buddhist caves in Dunhuang, China, where monks would engage in meditative, spiritual, and intellectual activities.

rhythmic complexity, especially polymeric rhythms and or rhythms played in 6/8 meters. In general, any part played in the music could contain complex rhythms and cyclical patterns like those found in Batá drumming, Korean folk drumming, and other folkloric music. Therefore, to produce Black Space music, the following must be present:

A. Created through the black lens (Afrofuturism/Genre)
B. Repetition, Drones, Arpeggios (Meditative Compositional Elements)
C. Incorporate Jazz improvisation & harmonies— not necessarily conventional jazz progressions— to create tension & release in the music (Jazz Sensibility/Component of Improvisation/Fluidity)
D. Rhythmic complexity: compound meters, polymeric (Meditative/Trance Inducing/Fluidity)
E. Triggers contemplation, reflection, and introspection (Intention)

Table 1. Elements of Black Space.⁹¹

These elements serve as the foundation for this work in composing contemplative music. The next chapter will touch on how these considerations relate, directly or indirectly, to the music for this dissertation project.

⁹¹ Five Considerations for Creating Musically Induced Contemplation.

CHAPTER 5: The Music

This chapter introduces and discusses the original works recorded and performed for this dissertation. The recorded works are being released on two separate albums. One is titled *The Antidote Suite*. The other is titled *Epsilon*. Two live performances featuring a selection of these works occurred on February 11, 2022, at Elastic Arts in Chicago. Five of the pieces are central to this dissertation project, and they can be accessed in the appendix. They are entitled “Breathe,” “Meditations on Oya (Μυ),” “Beautifully Black,” “Zebra,” and “Shades and Shapes.”

Descriptions of the music for the five pieces, starting with an overall introduction of the album *The Antidote Suite* and the concert performance, will be followed by introducing (and in some cases reintroducing from other parts of this writing) some of the overall topics that guided the creation and performance of these works. The topics range from acknowledging an existing genre of Black meditative music; Afrofuturism; drones and repetition as effective compositional devices; and time-based effects, such as delays and reverb, to achieving certain states of immersive and contemplative listening. These topics shape the ideas reflected in the music around Black nationalism and identity.

The Antidote Suite

The Antidote Suite was inspired by the works of six Black visual artists featured in the Black Index Art Exhibition curated by Bridget Cooks. Here is background information on the exhibit, taken from its website:

The artists featured in *The Black Index*— Dennis Delgado, Alicia Henry, Kenyatta A.C. Hinkle, Titus Kaphar, Whitfield Lovell, and Lava Thomas— build upon the tradition of Black self-representation as an antidote to colonialist images. Using drawing, performance, printmaking, sculpture, and digital technology to transform the recorded image, these artists question our reliance on photography as a privileged source for documentary objectivity and understanding. Their works

offer an alternative practice— a Black index— that still serves as a finding aid for information about Black subjects, but also challenges viewers’ desire for classification.⁹²



Image 3: The Cypher by Chelle Barbour.⁹³ *The Antidote Suite* album cover.

A total of fifteen songs were written as experiments for this dissertation project which will be released on three separate albums. The music of *The Antidote Suite* is the focus of this chapter while some songs from the album *Epsilon* have been mentioned in various sections throughout this dissertation writing. The music discussed covers all of the concepts and theories of this research, so every song does not need to be explained. The group I gathered together for this creative work, *Eunoia Society*, recorded *The Antidote Suite* and *Epsilon* at separate times. DeShazor and I are the only two musicians featured on both albums. *The Antidote Suite* is just over 32 minutes long, and each song segues into the next until the short pause before the last song, “Shades and Shapes.” The song preceding the pause is “Zebra,” which gets incredibly trippy or psychedelic in its last two minutes. This short pause before the last song was an intentional choice. It created space for listeners to internalize and reflect on the music thus far,

⁹² <https://www.theblackindex.art/>

⁹³ Multidisciplinary artist based in California. <https://www.chellebarbour.com/>

especially given that the psychedelic ending on “Zebra” skews temporal perceptions in flexible or in improvisatory ways. The songs on *The Antidote Suite* are listed in Table 1 below.

	Track Names	Track Lengths	Track Position (Approx)
1	Breathe	6:14	0:00
2	Meditations On Oya (Mμ)	5:17	11:31
3	Beautifully Black	6:08	17:39
4	Zebra	5:41	22.80
5	Shades and Shapes	8:21	31.01

Table 2: *The Antidote Suite* Track Listing⁹⁴

“Breathe”

The song “Breathe” is the invocation of the album. It contains a musical openness to allow thoughts to process and for questions to arise. This openness is space. The overall theme of this research is about space, therefore, it is important to reflect that within the music. The main melody in “Breathe” is loosely played in unison by Jeff Parker on the guitar and DeShazor on a 5-string violin. The slightest eye contact between the two players signals the start of the melodic line. The melody possesses the quality of a question that does not appear to desire an answer. The melody pauses on the note D sharp three times, never resolving to the G sharp, which is the tonic. While it is typical to hear call and response in black music, we do not hear the melody respond to the first phrase, or what is considered *the call*. The call could be considered the subject of a sentence while the response could be regarded as the predicate. Calling, or calling out, could be viewed as our cries to God, a higher being, or our inner-selves to gain the wisdom needed to answer questions, considerations, and choices— the call is similar to contemplation in

⁹⁴The track position column is for the convenience of those listeners who are listening to the music via music video, created by video artist Jonathan Woods, or for those listening on a streaming site.

that we do not always hear immediate answers to these thoughts or questions, therefore, waiting on the solution commonly garners patience and deep breaths. Below is the chart for “Breathe,” the first song on *The Antidote Suite*.

©2002 J. ARMSTRONG
TRACK 1/5 OF
THE ANTIDOTE SUITE

BREATHE

ALL INSTRUMENTS
DRONE ON G#min

CUE **A**

A

The musical score is written on four staves. The first staff is in treble clef with a key signature of three sharps (F#, C#, G#) and a common time signature. It contains a melodic line with several notes and rests, and a bass line with a few notes. A blue box labeled 'A' is placed above the first measure. The second and third staves continue the melodic line. The fourth staff is empty, with a blue box labeled 'B' to its left. Below the empty staff, there are handwritten instructions in red ink.

B
IMPROVISATION
PLAY FREELY

END SOLO $\frac{1}{2}$ ALLOW SPACE
CUE **A** WHEN MOMENT
FEELS TIMELY

Image 4. Chart for Breathe.⁹⁵

⁹⁵ *The Antidote Suite* was recorded without a rehearsal, charts, or scores to follow. This was partly due to the desire to create music that had structure, but room for interpretation and improvisation. The chart for “Breathe” was created after the session. There were demos of each song so the musician had an idea of the concepts.

This song uses the most reverb on the album, projecting an abundance of space. A large amount of reverb was used to simulate an empty space and allow listeners to position themselves inside, near, or far away from the mix. Isaiah Sharkey overdubbed the ambient guitars in the background sometime later. He connected six guitar pedals that create a large wall of ambient sound. He had to be dialed back in the mix to avoid interfering with Parker's guitar work. The ambient guitar tracks helped create a large space that draws the listener, metaphorically, from Earth into Outerspace. Out there in space, there is a notion of nothingness within all its blackness.

DeShazor went pretty heavy on the reverb as well. During the mixing stage, engineer Sean Owens asked about the amount of reverb. He approached the mix as he normally would and felt overwhelmed by the reverb. After the second objection about how much reverb was present, Sean needed to understand the purpose of the research—that reverb is an essential element—to convince him to let go of his principles on mixing audio. He listened and reasonably surrendered to the concept. At 3:11 and only enduring about 7 seconds, the violin somehow loses its reverb. It was a magical moment that exposed just how much reverb she was using through her pedals, heightening the perceived amount of reverb by encountering its absence for a short moment. Once the reverb reappeared, it took us back inside the cave-like atmosphere, mentioned in Chapter III.

The drone here rests on G sharp (G#) for the entire piece. It is established in the bass, played by Sharkey, and the guitar, played by Jeff Parker. A medley of swells on suspended cymbals reinforces the pedal tone in the bass. In the demo version of this song, rolls were played on the bass of the cajon, but not in the recording session. If there is too much bass (insert a collective “gasp” from the choir and pearl-clutching from the choir's elders), it could saturate

other essential sounds and easily overpower the perceived sonic space. The intent was to offer a sense of liberty by creating the perception of an open, large, and unbounded space and the effectiveness was to allow the bass guitar to fill the space without aid from the bass of the cajon. While this research advocates the necessity of having more black space (or space for black people), this song demonstrates an example of what space sounds like in a song and in a mix. The real estate of a song and of a mix should regard every instrument and all parts of the song. This exhibits a thought process of how people can live together in various spaces, such as this planet, on a large scale. On the shelf of a Target retail location is an example on a smaller scale. Sharing the space is a simple consideration and allows for others to move into these spaces.

Removing the cajon's rumble gave more room for other instruments to speak. Also, the rumble of the cajon's notes interrupted the smoothness of the bass drone, especially because it is difficult to play a roll fast enough with the bare hand on the cajon to simulate a smooth drone, especially for 5 minutes. The suspended cymbals were played with a particular pair of soft mallets, which created a lush texture mimicking a drone and complementing the bass. The cymbals do something slightly different than the bass, though.

The cymbals mimic breathing through crescendos and decrescendos, inhaling and exhaling, and tension and release. This tune sounds like how it would impossibly sound if there were a software preset for Outerspace as a reverberant room, and it was applied to the overall mix. If George Lucas can convince the world that there is sound in space, imagine an Outerspace "room" containing sound.

One final note on the distinction and relationship between droned notes and repetition. The concept that a drone can be a series of rapid repeats is considered throughout this album. For instance, a double stroke roll (with sticks) can start very slowly, but at a reasonably fast tempo,

each note will be played more tightly together, so they are heard as a single note. A press roll will especially sound like one continuous note. Creating drones using immediately repeated notes is a concept that was considered throughout the songs in this project. A repeated rhythmic idea on a single bass note could also give the impression that there is a drone present, being that the notes do not change in pitch.

“Meditations on Oya (Mμ)”

Among all the songs on *The Antidote Suite* album, the song “Meditations on Oya (Mμ)” is the anchor for explaining the compositional work for this entire project. It was initially composed for the Black Index Art Exhibit, which features six artists, all of whom created visual works to shine a light on the subject of blackness and recognize those whose lives have been altered by unjust systems. It is the result of a collaboration between myself (composer), Nola Gibson (dancer), Ama Wray (choreographer), and Desha Dauchan (film director). The latter three came up with a title for the song and explained why they wanted to honor the Yorùbá Orisha, Oya, and her powers. Below is a description of the Orisha Oya that served as a set of guiding thoughts when composing this song:

Oya is the powerful Yorùbá Orisha of the winds and tempests. She is considered either the sister of the Orisha of storms Shango, or one of His three wives, with Oshun and Oba. She can manifest as winds ranging from the gentlest breeze to the raging hurricane or cyclone. She goes forth with Her husband during His thunderstorms, destroying buildings, ripping up trees, and blowing things down. Oya is known as a fierce warrior and strong *protectress* of women, who call on Her to settle disputes in their favor.⁹⁶

“Meditations on Oya”—or *Mμ* going forward—was commissioned for a dance video, an artistic medium used to coincide with the exhibit and its website. The first meeting with all

⁹⁶ Obscure Goddess Online Directory, 2006-2012. Thalia Took; <http://www.thaliatook.com/AMGG/oya.php>

involved went smoothly as the choreographer, Dr. Ama Wray, described what she wanted to hear. A professor in UCI's⁹⁷ Department of Dance, Dr. Wray expressed that she wanted to hear rhythms in the meter of 6/8. More specifically, she (and the others) requested a song that would allow Gibson the freedom to dance between rhythmic 4/4 and 6/8 meter patterns articulated by West African drums. For the tempo, she stated that she wanted both slow and fast.

As the title of the song suggests, it is a *meditation*.⁹⁸ Blending notions of meditative music with African drums, a 6/8 time signature, and both slow and fast tempos was a challenge. The method was to create a song using 4/4 as the time signature with a triplet feel at a fast tempo of 170 to allow any drummer the independence to interpret by feel. This creates a fluid transition to play different grooves, which also connects us to the idea that Afrofuturism is fluid. In the article, "Afrofuturism: reimagining science and the future from a black perspective," from The Guardian, Steven Thrasher quotes author Ytasha Womack who explains what Afrofuturism is in her own words,

Womack, the author of *Afrofuturism: the World of Black Sci-Fi Fantasy and Fantasy Culture*, began by explaining that to her, Afrofuturism offers a "highly intersectional" way of looking at possible futures or alternate realities through a black cultural lens. It is non-linear, fluid and feminist; it uses the black imagination to consider mysticism, metaphysics, identity and liberation; and, despite offering black folks a way to see ourselves in a better future, Afrofuturism blends the future, the past and the present.⁹⁹

The song could be thought of as being written in a 12/8 meter. But, it can be felt as 4/4. It allows for multiple, simultaneous interpretations of rhythmic feel. And rhythmic feel can be thought of as movement— meaning how you want your audience to move and feel while listening to the music. For instance, we generally see crowds sway to the music in the same

⁹⁷ University of California, Irvine.

⁹⁸ An informative discussion of dictionary definitions of meditation and its adjacent, *contemplation*, especially as it pertains to what I call *inner-personal* work, will be presented in a subsequent section.

⁹⁹ Steven W. Thrasher (@thrasherxy), "Afrofuturism: Reimagining Science And The Future From A Black Perspective," The Guardian, December 7, 2015, <https://www.theguardian.com/culture/2015/dec/07/afrofuturism-black-identity-future-science-technology>.

manner or bob their heads in the exact directions and on the same beats. The rhythm of the drums and bass dictates how the body will move. Therefore it is possible to compose music that compels an audience to embody the music, move collectively in similar ways, and feel good while doing it. This is eunoia.

The musicians who recorded *The Antidote Suite* never saw a chart for any of the songs. Many musicians in cities like Chicago or Detroit, may not be able to read music; therefore, they focus their attention on feeling the music. How we learn music or learn how to play a song speaks to the identity of the musicians playing the music. For example, Sharkey said that he would rather hear the demos than read the chart. We must understand and recognize the value of the various ways in which different musicians learn music.

Unfortunately, the drums were programmed using the Native Instruments (NI) software instrument, *West Africa*. Working with drummers experienced in West African practices would have made the music feel less mechanical and cut down a lot of production time. However, recording costs and the COVID-19 virus pandemic made it legally impossible to have people in the same room. The drum samples used for *Mu*—often containing polymetric rhythmic patterns—are why the song may feel faster at times. I intentionally programmed the rhythms to be somewhat dynamic by programming variations of the rhythmic patterns.

A Guinean drumming ensemble may play a rhythm for a long time before switching to another rhythm. However, each rhythm they play may have variations. The drums in *Mu* were programmed similarly, but the feel of the changes from variation to variation derived from hip-hop since the drums were triggered intuitively, using a midi keyboard. The lead djembe in a traditional drumming ensemble of Guinea, and many other countries, will play a call when he or she feels like doing so, which signals the other drummers in the battery to switch patterns for a

moment and then go back to playing the main rhythm. Because the lead drummer can intuitively decide when programming the software drumming ensemble to switch variations also added an improvisatory element to the music, which is a simple reference to jazz— in a sense paying an homage to jazz. The reason is that as the programmed percussion ensemble plays variations to rhythms, the djembe improvisation is in dialog with the other improvisatory elements played by the guitar, violin, and flute parts. To bring this song even closer to the jazz domain, the ride cymbal was played and recorded as a last-minute decision in the studio.

Central to this dissertation project is the idea that drones help create meditative musical experiences. While there is no conventional drone in *Mμ*, I use the piano and the bass line to imply it. The bass plays half-notes for most of the song. It pedals on E-flat as the tonal center of the tune and the half notes are played with legato which both help to impress a drone-like quality— so it works as a drone. To clarify, if the bass notes were staccato or quarter notes, this may not have given the perception that there is a drone. When the bass note changes, it does not move more than one whole step away, except in the double-time sections of the piece. Deliberately avoiding big leaps in pitch in the bass register and reinforcing the tonal center effectively substitutes as the drone in this tune.

The piano part also supports the drone in this tune, but various aspects of it, including the quality of its sound, rhythmic density, and attack-release articulations, also reveal some of my findings in working towards composing tunes that reinforce the central themes in this dissertation project.

While the original plan was to record the piano part on an acoustic grand piano, due to the pandemic, I was unable to, in part because finding piano tuners was complicated. And, the ability to have a kind of intonation that can maximally blend with other instruments on a timbral

or spectral level in this song was paramount. It was one way to allow for the option to create sonic unity, which seemed important when thinking about encouraging meditative musical experiences.

It goes without saying that there is a qualitative difference between the sound produced by performing on an acoustic grand piano versus a MIDI compatible digital piano. Having only the option to use a MIDI/digital piano that is inherently less dynamic in its sound quality, but does have the advantage of staying in tune, I needed to find a way to make the digital piano sound less detached from the parts created by the instrumentalists who were adding to the harmonic material in the piece. I opted for getting a highly skilled (and highly recommended) performer—Amr Fahmy—who possesses the ability to create dynamic and nuanced passages even on digital pianos.

The chords in this song do not articulate clear beginnings and ends since the piano is played with a lazy-like feel to create a soft attack on the downbeat while the sustain pedal is held. The end is articulated by the soft attack of the next chord, producing a kind of circular flow in the chordal motion. Doing this also obscures the articulation of harmonic space in time. We hear a leisurely beginning and pursuant motion that floats off into outer space until the next chord with a soft attack begins.

The piano is heard as the least energetic sound, which is quite calming when solo-ed in the mix. The piano in this song essentially feels like it is playing at 42.5 bpm, i.e. one-quarter of the metronome marking, with a repetition of the same D-flat minor chord that, each time, has a soft, arpeggiated onset and a decaying end. The chords serve as the drone through repetition and implied sustain. Normally, held notes and chords on an acoustic piano fade out when sustained for a long time. In *Mμ*, the chords are always cut short because their slowly decaying sustain is

interrupted by the next chord. They never fade completely away until the very last occurrence in the song.

While the chords are performed in a slightly lazy way, liberated from strict synchrony with respect to pulse, they cannot reach completion and full expression due to being interrupted by the next chord. It reminds me of being silenced in an otherwise free world or being muted by some habits of patriarchy. Perhaps, the fully sounded sustain of the very last chord of the song signifies that, in the end, but only then, each of our voices will be heard and liberated. The other interpretation is that repetitions overlap and impress an effect that mimics movement and shifting of delay times. So, here we have a way to *compose* delay as an effect within a composition.

The chords of *Mμ* center around E-flat major until the B section. The B section only plays on D-flat minor. The chords here are played as whole notes on every other bar, while the note E-flat is being held on the bass as a single quarter note on beats 1 and 3. The E-flat note is performed playfully, sometimes sliding and descending chromatically. It is light in feel and does a flourish at the end of every bar. Because this work was written for dance, metaphors linking human gestures to musical devices like lightness and flourishes seemed appropriate. Ballet, and its focus on balance and control of gravity, are at play. The piano's half notes allowed space so that flourishes could be played between the notes, just as a dancer may perform a royale ballet move which is when they switch their feet position while suspended in the air after a jump.

“Beautifully Black”

INSTRUCTION TO THE PEOPLES OF THE EARTH. You must realize that you have the right to love beauty. You must prepare to live life to the fullest extent. Of course it takes imagination, but you don't have to be an educated person to have that. Imagination can teach you the true meaning of pleasure. Listening can be one of the greatest of pleasures. You must learn to listen, because by listening you will learn to see with your mind's eye. You see, music paints pictures that only the mind's eye can see. Open your ears so that you can see with the eye of the mind.

-Sun Ra¹⁰⁰

Beautifully Black is probably the most complicated song on *The Antidote Suite* album to play because of the structure. Its theme admires the pride and strength of Black culture. There is no melody here—Deshazor embellishes the top notes of the chord progression but never takes an honest solo as we would normally hear in a conventional jazz-like tune. This is purposefully part of the design of this song: to create a sense of liberation despite a well-defined structure.

This song challenges the ideas of perfectionism, another human trait that could cause harm without balance, and represents freedom in structure. This song's chord choices were chosen intuitively, without using the knowledge of chord progressions or structure. Hitting record and playing was the only action to composing the chord progression. After approximately 2 minutes, the recording was stopped and what was there was a 2-minute long composition as one big chord progression. This was copied and pasted twice more, adding two repeats. The listener hears this passage for a total of 3 times. A tag was added which was taken from the last minute of the original passage and added to the end of the third repeat. The chords were very dissonant (dissonant with respect to notions of harmony in introductory western music theory) and left as is. There was no chart written for any of the songs at the time of the recording. This allowed Isaiah Sharkey, Jeff Parker, and Leslie Deshazor to interpret the music as they wanted, which is a model of inclusion in composition.

“Zebra”

The topic of this song is yin and yang, or in more plain terms, decision making. Some decisions are easy, while some can be very hard. We are not simply balancing what is in front of us, but considering how the decision in front of us will affect our lives in the future. The more at

¹⁰⁰ From the original sleeve notes to *Sun Song*; quoted also in the sleeve notes to *Pictures of Infinity*.

stake, especially decisions that truly affect our lives, the harder choices seem to be.

Decision-making is a skill set that we can practice, hence making it easier to decide on everything. Daily, we choose between right and wrong, good and evil, and fear and love. The disconnected sentiments of choices bring us to the gray space that we call the middle. Our thoughts may seem distorted *at* this moment, but not *in* that moment— time shifts around us. Or possibly, we shift around it.

This is the only song on the album containing vocals and lyrics. The song's first half uses musical devices comprised of a few idiomatic hip-hop characteristics: a rap, a groove, and minimal chord movement if any. We can view rapping as chanting: a one-pitch ostinato or rhythmic drone. The song's second half takes us through mixed dimensions of time-shifting. Here, the song shifts every 1-3 seconds in speed. In Logic, there is a plug-in called Remix that was used to trigger repeats, phasers, bit-crushing, morphing, and tempo manipulation. It sounds as if a DJ is scratching a vinyl record. The top half of this song could be realized as balanced. It begins like a standard tune with vocals and a lyricist. But, the second half is not even predictable. Traveling along the line, the width changes, the colors change, and the length of the line changes as well. While we once again teeter-totter along the thin-gray path, that path also shifts in size, color, and depth. So, we must be careful where we step. The combination of both halves ultimately provides balance.

A central concept within this work and beyond is to intentionally embrace the use of constraint and freedom to explore balance. I particularly admire the concept of yin-yang. There's something quite beautiful in art, in general, that contains contrasting aesthetics. While yin-yang implies clarity between two opposing ideas for most people, to me it also tacitly infers inclusion. It is not about either, nor or. Both, or all, empower symmetry and stability.

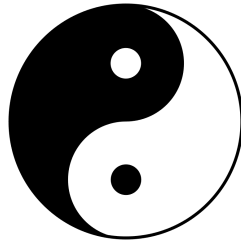


Image 5. Yin-Yang symbol.

In the music, for instance, you will hear contrasting sounds, which I think of as a way to suggest balance, harmony,¹⁰¹ and inclusion. In “Meditations on Oya,” we hear a very calm piano after a storm. In fact, the piano stays calm throughout the entire song, but the West African drum samples that first appear at the start of the song, and offer the metaphor of a storm, provide the contrast. This intentional design in the music is the symmetry in a song that depicts the kind of balance and stability symbolized in yin-yang.

Another example of balance on the album lies in the lyrics of the song “Zebra,” as well as the entire music video.¹⁰² Vocalist Yaw Agyeman recites that the middle is a very tempting place to sit comfortably in at the top of the song. The song crescendos in volume and intensity and lands on the second verse with a heavy hip-hop beat. Lyricist Phenom enters with a very strong line referencing balance.

Failure to Make a Decision is a Decision
And if you don't make the cut, leave an incision
That's why I put my foot down get in position
The Zebra say black or white
But you ride in the gray
Ok, that's in the way but hey stay off my dinner plate
Maybe that chip on your shoulder say that its Frito Lay
I beat it down to the rhythm cause I'm the single pa-

¹⁰¹ Harmony is used here, not as it is typically in music, but as in agreement or concord.

¹⁰² JoVia Armstrong. *The Antidote Suite*, 2022. “Zebra” music video. <https://youtu.be/MvKipK2jdfY>

-tient I'm the son of a motha who didn't even play
She knew that one day I would be the king and I would lead the way
And now I got the best mommy calling me daddy
She know that I'm from Chicago
Nomenom from the bay
But this warrior shining on them in my golden state
Can't listen to what they say cause I got no limita-
-tions Ain't no riding the fence
This not an easy race
We zebraheads see the black and white hella clear as day
Know yourself so that when the rain come you don't wash away

-Phenom¹⁰³

One evening, during a twenty minute conversation with Yaw Agyeman, the singer on “Zebra,” topics about the importance of knowing when to sit quietly in the middle and when to take action in making a decision were discussed. Other topics briefly surfaced about the absence of black space and perspectives on the concept of time. After this conversation, Yaw and Phenom received creative control to complete a video. Jonathan Woods, the director, came up with the concept of the video with Yaw and Phenom’s input. The video is interesting from the start when Yaw is seen performing Taichi, a martial art form requiring great strength and balance. It is not only used for self-defense but also for meditation. His very slow Tai Chi movements skew our perception of time—the video appears to be moving in slow motion when it was not. You will not notice it until you pay attention to his lips moving, singing the lyrics to “Zebra” in real-time.

The video is also in black and white in its entirety which represents the image of yin-yang and the opposite ends of the color spectrum. Throughout the video, we see different graphics and texts that are in black and white. The second half of the video is just as twisted, chopped and screwed as the song. The video incorporates glitches, tape stops, reverse effects, and more to match the song. Jonathan, Yaw, and Phenom had 100% control over the creation of the video.

¹⁰³ Lyricist, MC on “Zebra.”

This was a way to incorporate inclusion for the complete production of this song and video.

We experience balance in relationships, romantic or otherwise, where opposites attract which can help balance that relationship. The same model can be found at a company as well. A team working together on a project must contain people with different skill sets and roles to work together harmoniously. If everyone on the project's team has the same skills, there is no balance and there is no stability. The team leans so heavily on the left that it is neglecting the work that is needed on the right. Inclusion is listening to *everyone's* input on the project's success.

In music, inclusion could be represented or illustrated by allowing the musicians' input, whether they helped to compose the piece or not. It is in the creative process of rehearsing a composition where inclusion can happen by allowing the performers/musicians to offer input and honor it. This could possibly make them feel like they are more than just hired guns to interpret the compositions. It may help build their esteem a bit as creators and composers. It can also demonstrate buy-in to the work. Additionally, they are the ones who understand the limitations and capabilities of their instruments the most. It would benefit any artist, and the message through music, to include their ideas in the creative process because they are the experts on their instruments.

Within yin and yang, there is a fluidness in the circular and curvy design of the symbol. There are no straight lines, and even the black and white dots signify that the two opposing ideas are also within each other. You can imagine that in the middle is where you could sit still. In this space, you do not move, but everything around you moves. The white and black seem to swirl around in a circular motion. Most of the movement is on the outskirts of the circle. But the closer you get to the center, you find balance and gain control. And simultaneously, accept that you have control over nothing. As bell hooks states in *Killing Rage: Ending Racism*:

Beloved community is formed not by the eradication of difference but by its affirmation, by each of us claiming the identities and cultural legacies that shape who we are and how we live in the world.¹⁰⁴

“Shades and Shapes”

Shapeshifting is a part of the black experience. From code-switching to hair straightening for the corporate world, black people have to adjust to fit in the spaces that they are in. Black women have played a massive function in cultivating our culture and shaping our communities. “Shades and Shapes” honors Black women and features DeShazor on electric violin. Inspired by the stylings of Herbie Hancock, Amr Marcin joins us on the vintage electric piano. This tune gives DeShazor space to improvise somewhat loosely. The bass on “Shades and Shapes” lingers on E-natural and is mostly a jam that I conducted during the recording session. It drives on a rhythmic motif and reintroduces the melodic question reverberating in “Breathe.” A reminder that we all offer something unique to this world. As “Breathe” played the role of the invocation, “Shades and Shapes” is the benediction.

The Concerts

The February 11, 2022 concerts were held in Chicago at Elastic Arts, a nonprofit arts organization with a venue nesting on the north side of Chicago’s Logan Square and Avondale neighborhoods.¹⁰⁵ These concerts featured me on the hybrid cajon kit, Leslie DeShazor on a 5-string violin, Rami Atassi on guitar, and Brooklyn Skye on bass. Stephan Moore, a lecturer at Northwestern University, and his partners designed, built, and installed a 16-speaker multichannel system in the ceiling. The speakers hang along a 4x4 grid, about 8 feet apart from

¹⁰⁴ bell hooks, *Killing Rage: Ending Racism* / bell hooks. 1st ed. (New York: H. Holt and Co.), 1995.

¹⁰⁵ Performance 1 (7:00pm): <https://youtu.be/hiW0SHvTjL0>; Performance 2 (9:30pm): https://youtu.be/fsCWT8_V-4g. Both performances share the same set list. The second, though, has an improvised encore.

each other. The venue is mostly a three-room space: one large room that has the capacity to accommodate around ninety people, a small storage closet, and an office.

The performance area is a square room where the entrance is considered the back of the room. So, audiences enter automatically facing the stage area, and with a very clear view of everything. The ensemble chose to sit in a circle in the middle of the room facing each other to have better eye contact. Eunoia Society's bassist Damon Warmack had an emergency and we had to replace the guitarist due to moving the concert from Irvine, CA to Chicago, IL. Atassi and Skye were called for the show only a couple of weeks before the date, so they needed a little more time with the music, and for understanding my concepts on how to approach the music. A deeper understanding of the underlying concepts allowed for better communication between the musicians.

Placing the musicians in the center of the room in a circular configuration also changed the way in which we were seen by the audience. This skewed the idea of direction as there was no longer a "front" or "rear" for an audience to focus their attention on. The audience observed us as they normally do at concerts, but having them sit in a larger circle around us made them a part of the performance as *observing* participants.

The first day was used as a tech day for Stephan and me. We discussed the concepts of spatialization and immersion, did some troubleshooting for one speaker that was not working, and double-checked all signals and cables. We decided that I should purchase a DI box and 4 headphone extension cables for in-ear monitoring. The band made the decision to move the rug near the center of the room, between the cameras set up for live video streaming, and set themselves up in a circle. Stephan was able to bring in a small crew of people to help us document the dissertation concerts. Without a budget to pay people, I never feel comfortable

asking for a lot of time from people. And, it takes time to familiarize everyone with the concepts in work like this. Assistance from others is extremely treasured and required to pull off a tech-heavy show.

My role of responsibilities was comprised not only of doing the research to conceive the music in dialog with related scholarship. It also included teaching and convincing others of the goals of the research, patience in gaining their buy-in, and guiding the musicians on how to approach making the music in the context of a live performance, not just in a recording.

There was a little setback in being able to blast the speakers. DeShazor did not want to use the in-ear monitor system we set up because she did not have the correct headphones for in-ear monitoring. And, without the proper headphones, I couldn't create the high amount of reverb I wanted there to be. I preferred more quality from her performance than an abundance of reverb, so I once again let go and welcomed her level of comfort. In *Future Style Magazine*, Dave Hampton described a similar challenge during the making of his surround-sound live show for *Future 2 Future* discussed earlier:

Some of the things we discovered though is that in that element where the audience enjoys it and everybody hears it and everything is great, the musicians are still challenged because they now cannot hear in surround. So that's where we're at this time and that's what's challenging us again and we're going to try to come up with something there. A lot of that has to do though with having people think different, which is what Herbie is a big proponent of. Trying to get people to think outside the box, trying to get drummers to not think like a drummer all the time, trying to get keyboard players to not think like a keyboard player all the time, trying to get people to come outside the box so they can come with something new".¹⁰⁶

While I felt good about allowing her level of comfort to co-exist with mine (another example of inclusion), I became nervous about meeting my own expectations for the purpose of

¹⁰⁶ "Herbie Hancock," *Future Style: Advanced Technologic Sound Magazine* (2002).
<http://www.futurestyle.org/archives/h/hancock.htm>

this dissertation. Being a composer does not call for collaboration or outside thoughts. It can be a lonesome task. Being a producer is not just about creating music to reach its finest form, but it involves playing the role of a psychologist to get what you want from the musicians in the room, occasionally compromising. I had to make a decision. I contemplated what I genuinely desired and what stood most influential for the audience. I chose to have the best performance of the music which meant authorizing a liberation that ushers in comfort, and, ultimately, allows the identity of each musician to have enough space to shine bright. Conveying the most satisfying interpretation of the compositions according to all involved was the most indisputable highlight of the concert. Nonetheless, one must not dismiss the idea that there must be a will between all participants to experiment as much as they can allow. We all have our comfort zones, but this project requests to push the borders of comfort as much as they are able. There are lessons learned from these concerts that I look to carry forward when opportunities for performing these works in the future arise.

Hybrid Scores

Part of my process in composing for immersive experiences is to generate graphic scores and create audio recordings as scores. The scores created for this particular dissertation include a combination of short staff lines to convey melodic lines, colored inks to represent transitions, and images to convey processing. By writing in this hybrid way, the best of both worlds presents itself through the music. Preference is given to use musicians who can groove and play pocket. In addition, musicians who mostly play pocket in black communities oftentimes do not read much of or rely on common practice music notation. They play by ear and usually can read chord symbols. So again, hybrid charts or audio recordings are the best equivalents for a score. Image 6

shows an example of a hybrid music chart from the song titled “Embryo” which will be released on the album *Epsilon*.

EMBRYO
(THE PRELUDE) © J. ARMSTRONG
10-30-19

C sus4 Δ7⁹ (ADD 3)

VIOLA PLAYS IN TIME W/ BASS

WATCH FOR CUE TO FADE TO GUITAR SOLO

OPEN GUITAR SOLO - GO CRAZY

CUE: QUARTER NOTE ON HIHAT (IN 3)

BRISK!! E^b sus4 Δ7 D sus4 ← VAMP UNTIL CUE TO FADE BACK TO GUITAR SOLO

GUITAR SOLOS; THEN TO CAT⁹ → EVENTUALLY ARPEGGIOS
↓
THE BABIES

Image 6. Hybrid music chart for “Embryo.”

Using colors on these hybrid charts is also a personal choice. Percussionists are often too busy and are constantly looking away from the music in front of them. They also are somewhat detached from their instruments if they are playing with sticks. Therefore, the colors help to keep track of where they are in the chart. Again, this is a very personal choice and not necessary for everyone. But, depending on how much information is on the chart, using different colors may be a useful tactic for anyone, except for those who may be color blind, unfortunately. Using slang or ebonics on these charts is very much welcomed. In “Embryo,” you see the words “BRISK!” and “Go Crazy” because everyone can understand this language which brings us to

another attribute to this music and the entire project as a whole: *it strives to be inclusive*. Hybrid charts like these resist composer-performer hierarchies that have dominated music-making in the modern history of western art music.

Below is a chart of “Kitty’s in Rome” (now titled “Curiosity”). On this chart are written words to inform musicians of when to play using pedals. After writing this out, it seemed that some predetermined symbols for the effects should be used since words take up more space and time to read.

KITTY'S IN ROME 1-20
© 2019 JOLIA ARMSTRONG

Annotations:

- Loop Pedals:** (A) VOCAL SAMPLES (LOOP PEDALS), (B) DRONE, (C) BASS IMPROVISATION TO (B)
- Samples:** (B) E^b7⁹ SAMPLES, E^b7⁹ SAMPLES, C⁶7, B^b7, SAMPLES/STOP LOOPS
- Guitar Pedal, Delay:** (D) LOOK FOR CUE TO

Handwritten Notes:

- ① BASS IMPROV STOPS PLAY CHORDS ON CUE, BUT CONTINUE DRONE
- ① BASS COMES IN WHILE SAMPLES PLAY - CRESCENDO ! SWELLS IN
- ② VIOLA: PIZE, DELAY, HOG (ORGAN?)
- ③ GUITAR SOLDS → THEN VIOLA
- IMPROVISE
- BASS NOTES CHANGE

Chord Progression:

13. A :|| 14. D^b :|| 15. G7sus4 m9 | FΔ7⁹ | G7^{#5} |

Rhythmic Notation:

3 4 | 3 3 | 3 3 | 3 3 |

Image 7. “Kitty’s in Rome” chart. Now titled “Curiosity.”

What struck me as important to the music and compositional ideas in this project were creating symbols for FX processing. And, Images 8 and 9 provide examples of ideas about what these symbols may look like. It is an area of exploration that many have explored in the past without resulting in a standardized system. I present these examples as a starting point for further development when continuing to create works of Black Space.

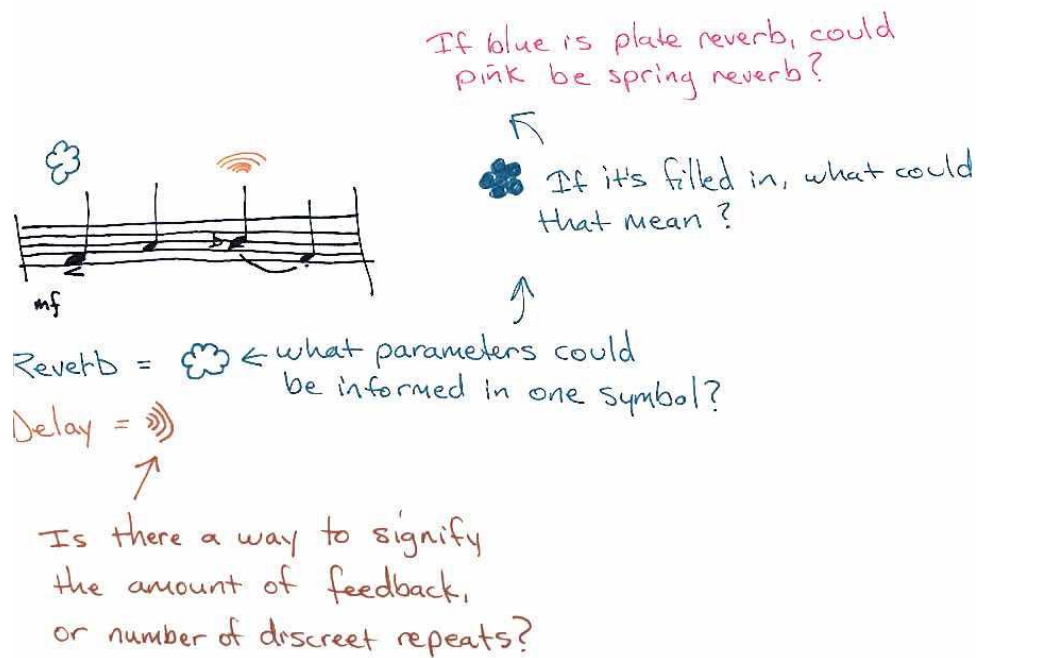
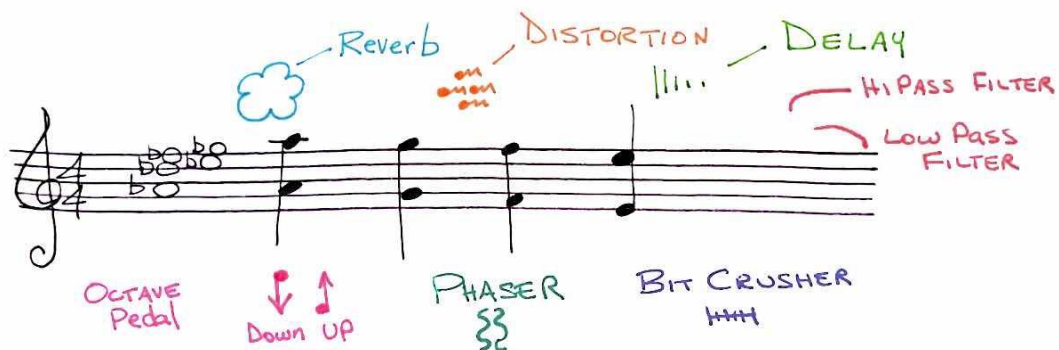


Image 8. Processed sounds as symbols. First attempt.



Conclusion

While there are many areas of research that already offer discourse on the benefits of music for instrumentalists and listeners, as well as the healing powers of music for the mind and body, this research exemplifies matters of unconscious behaviors in the black community that affirms reasons why black people should strive to understand their identities through engaging in reflection, introspection, and meditative practices. This research is grounded in the blending of aesthetics of black music and the aesthetics of contemplative/meditative, both recorded and performed using high-end audio technologies that help create immersive spaces to usher contemplative thought.

Without physical and mental space, black people spend extra energy, waste extra time, and pay extra attention to daily matters of life more than their white counterparts. Social conditioning internalizes self-doubt and low self-esteem, which further perpetuates the assimilation of other people's identities and values. How we act, speak, look and live in general should come from our intrinsic mentalities. It is critical for black people to have space to combat social conditioning. This research shows us how to do that through the use of meditative elements of music, composition, and technology to trigger self-actualization.

The work of bell hooks on black identity and self-esteem shows that if black people can escape from the predominance of whiteness, they will be able to realize liberation in their own

lives. hooks' work also suggests that mental health support is a crucial way to gain an individual identity. Composers (even those who are not professional mental health practitioners) can use their musical aptitude to assist people in the black community to attain more in-depth insight into their identity by offering music that offers space for contemplation.

The music of Black Space proposed in this dissertation enables composers to act as vessels to offer black meditative music through reflective elements of composition (drones, repetition, arpeggios, compound meters, etc.) for black communities while suggesting musical frameworks that are considered contemplative entertainment. The creation of immersion through time-based processing, such as reverb and delay, is a tool that composers can employ to help convey the perception of being in alternate spaces of reality. These perceptions provide room for people to contemplate their lives.

Various systems in the real world contain spaces that make it more challenging for black people to achieve the same success as their white counterparts without the *need to assimilate*. The effort to assimilate is not only draining and bombarding, but its very purpose causes one to “give up” their own identity to fit into binary systems to make them less threatening to the powers that may be. It is the “giving up” that is self-defeating and damaging to one’s happiness and only works to a certain degree. Giving up is a catalyst for complacency— falling in line and accepting what is given, which is often detrimental to the soul. To cope with the bombardment of alternative ideas of who and what a person should be, people need opportunities to self-reflect and contemplate— creating an alternate reality that affords them an abundance of space.

Black artists such as Sun Ra, John Coltrane, Alice Coltrane, and genres like Dub have made music to help audiences cope with life’s ups and downs, stimulate hope, and cultivate pride for decades, even after death. This does not discredit other genres, artists, and cultures that make

contemplative music using similar devices, such as drones and repetition. These artists and genres have existed for decades. And they created their music through their lens, as their musical aesthetic is meant to be appreciated by them. Black Space identifies a meditative genre of music created for black people by black people.

Appendix A

Links to *THE ANTIDOTE SUITE*:

[*Breathe*](#)

[*Meditations on Oya \(Mu\)*](#)

[*Beautifully Black*](#)

[*Zebra*](#)

[*Shades and Shapes*](#)

Appendix B

Link to files from February 22, 2022 concerts:

The link to the folder with ambisonic and multichannel sound files (and other related files) from the February 22, 2022 concerts is [here](#).

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