SOUNDS IN MOTION: AN OBSERVATION INTO

MOOD, MOTION DESIGN, AND MUSIC

by

Neakail Tolbert, B.S.

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Committee Members:

Dimitry Tetin, Chair

Alice J. Lee

M. Wright

DEDICATION

This thesis is dedicated to Stan, Vanessa, Darius, and Natalya Tolbert.

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I. INTRODUCTION

Music, as a form of communication, connects us psychologically and emotionally. Even though music can be considered a form of entertainment that brings relaxation and comfort to its listeners, it can also be a purposeful source of healing for individuals struggling physically and mentally. In the book *Music as Medicine: The History of Music Therapy Since Antiquity*, Horden (2017) 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 listening to music has been thought to achieve 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 (p. 1).

Digital spaces incorporating music, graphics, and interaction between people can act as a medium for such healing. As a result, these spaces have become a therapeutic resource for individuals rather than a form of entertainment. Digital spaces that have become popular in recent years are *Lofi Girl, Chillhop Music, and Jazz Hop Café* Youtube channels for the fans of the musical genre known as Lo-fi Hip-Hop.

The genre of Lo-fi is a blend of electronic music that shares qualities with Downtempo[1] and Chillwave[2] scenes (Masterclass, n.d). It comprises mixed elements of house, jazz, and hip-hop beat samples, focusing on the "Do-It-Yourself" (D.I.Y.) aesthetic that emphasizes analog recordings' imperfections and homemade qualities. The sub-genre Lo-fi Hip-Hop follows the definition of Hip-Hop, which includes elements such as sampling beats, or baselines from

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[1] Downtempo relates to a comprehensive genre of electronic-style music. That can be characterized by atmospheric sound and slower-paced beats or tempo.

[2] Chillwave relates to a retro style sound that is similar to '80s electro-pop but with a more psychedelic aesthetic influence.

records (or synthesized beats and sounds) stylized to rhythmic music. The main difference

between the genre of Hip-Hop and Lo-fi Hip-Hop is the absence of vocal lyrics in the music.

Lo-fi Hip-Hop is an "internet-born" music sub-genre of Lo-fi, popularized in the late

2000s, usually referred to as "lo-fi chill beats." It combines "low-fidelity" beats, including

clipping, tape hissing, vinyl warbling, and slowed-down tempos with samples. These down-

tempo beats contact the subconscious, allowing the listener to relax and destress, decreasing

anger and increasing serenity (Trochidis & Bigand, 2013).

In her article *License to Chill: Why Is Lofi Girl Our Dream Study Partner?* Absessamad

notes that Lo-fi Hip-Hop creates a tranquil atmosphere away from ongoing world problems:

> I miss a sense of safety and security that has vanished with adulthood, alongside the looming climate emergency, ongoing wars, and pandemics. It is hard to find solace when so much comes crashing at once in our lives, which is why the blissful, suspended parenthesis of a lo-fi beat embodies a possibility, a quiet force, and a refuge (Absessamad, 2022).

This specific genre has resonated with millennials and Generation Z (Gen Z), considered the

second most stressed generation according to 2017 survey data provided by the American

Psychological Association (A.P.A., 2017). As Nusrat Labonnayo noted in an article in *Tandard,*

"Lo-Fi music — previously an underground genre — has become a new cultural phenomenon

amongst millennials and Gen Z across the world" (Labonnayo, 2022). Much like other genres,

such as punk, electronic music, and underground hip-hop, which all started as groups of

individuals searching for a community in which to thrive and connect, Lo-fi Hip-Hop started as a

small community within the furthest corners of the internet, inviting people to experience a genre

that emphasized the imperfections and homemade qualities of analog recordings.

Lo-fi Hip-Hop channels such as *Lofi Girl, Chillhop Music,* and *Jazz Hop Café* became

community spaces that served as a place of healing. These online listening communities offered

spaces for experiencing music and discussing mental health concerns with a global audience via

a live chat feature integrated into the media platform. Online, the genre has created a thriving culture and community among individuals whose mental health has degraded. In *Beats to Relax/Study To: Contradiction and Paradox in Lo-fi Hip-Hop*, Winston & Saywood (2019) of the University of London note that the comments sections and live chat of several Lo-fi Hip-Hop channels, in particular the live chat session for "Lo-fi Hip-Hop radio — beats to relax/study to," [3]offer a supportive and a caring social structure. The audience, consisting mainly of university students, uses the music simultaneously for its stated functional purposes of productivity, relaxation, and emotional exploration (p. 41). Media platforms such as Twitter, YouTube, Reddit, Discord, and Instagram have established an open social network of communication among their users. Many millennial and Gen Z listeners express their emotions, moods, and mental health concerns through the comment sections and discussion boards that serve as safe, anonymous online social spaces. Comments can address various topics, from asking about an individual's day to openly asking if they are experiencing mental health problems.

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[3] Lofi Girl *"Lo-fI Hip Hop radio — beats to relax/study to" https://www.youtube.com/watch?v=jfKfPfyJRdk*

II. CONTEXT

Digital artists and motion designers use music as a catalyst to create visual graphics or visualizers, which communicate or relate with the audience on an emotional level, enhancing the music and steering the direction of the viewer's emotions. The term "visualizer" refers to various short animations, videos, and computer graphics that respond to music and enhance the viewer's listening experience. With advancements in graphical technology in recent years and the introduction of smartphones, visualizers are now moving into more customizable experiences with the help of augmented reality (AR)[4] (Corporation, M.,n.d.). An example is *The Door*, created by extended reality (XR)[5] designer Heather Dunaway Smith (Corporation, M.,n.d.); this 3-dimensional AR experience allows the user to change the song's mood based on how individuals respond to it with specific hand gestures — creating an opportunity for the user to engage with the visualizer and extend the invitation to establish one's own interactive listening music experience. Figures 1–3 illustrate how the user would interact with the AR experience using hand gestures. These gestures would then change how the song plays and sounds by acting as musical instruments for users to explore and experiment with.

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[4] Augmented Reality is an enhanced, interactive version of a real-world environment achieved through digital visual elements, sounds, and other sensory stimuli via holographic technology.

[5] Extended Reality is a catch-all to refer to augmented reality and virtual reality.

Figure 1. The Door by Heather Dunaway Smith, 2021, Video

Figure 2. The Door by Heather Dunaway Smith, 2021, Video

Figure 3. The Door by Heather Dunaway Smith, 2021, Video

Another example of a visualizer is the video *Few Moments of Mess*, created by motion designer Cento Lodigiani. The design uses abstract shapes to create a space that helps guide the viewer's eyes throughout the visualizer. This is illustrated in figure 4, in a frame taken from the animation that shows the use of abstract shapes in visualizers.

Figure 4. Few Moments of Mess by Cento Lodigiani, 2012, Video

These shapes, accompanied by a low bass soundtrack, create a distinctive, engaging, and distorted atmosphere for the audience; the scale of the shapes grows and shrinks with each kick of the low bass track to simulate the shapes dancing. They shift and move across the center screen, creating a center point of interest for the viewer's eyes and a hypnotic experience. These techniques allow the viewer to become engrossed in the motion graphics and sound, creating a feeling of anticipation.

On the other hand, the channel *Lofi Girl,* formerly *Chilled Cow,* illustrates that these visualizers can use more figurative representations in their non-stop music streams. The most recognizable visual they use is the "studying anime girl," known throughout the community as "Lo-Fi Hip-Hop girl." This illustrated character serves as an icon for the overall genre and has developed her own story and personality throughout the channel's multiple varieties of music

streams.

Figure 5. Lofi Girl, 2023, Video

Figure 5 shows a screenshot of the visualizer from the *Lofi Girl* channel that features "Lo-fi Hip-Hop girl". She is depicted as a woman in her late teens or early 20s sitting in a quiet bedroom at a desk with headphones on while flipping through what can be assumed to be personal notes for studying. From time to time, the image will change from her studying to glancing out the window as if she were daydreaming.

Most animations, such as those on the *Lofi Girl* Youtube channel, use a recurring palette of purple, blue, and pink hues. This specific color scheme evokes peaceful moods, feelings, and memories from the audience. In their research on the effects of color on emotions, Valdez and Mehrabian (1994) found that blue, purple, and other related hues are associated with being "secure/comfortable" and feelings of "tenderness/soothing" (p. 396). Although blue and purple are considered primary choices in animations such as *Few Moments of Mess* or *Lofi Girl*, pink

also plays a vital role. According to Liksevica (2017), shades of pink are associated with a calming effect that reduces feelings of anger. The graphics created to accompany lo-fi music can range from simple patterns that resonate with the beats of the music to complex detailed artworks, which have fluid animations that intertwine with the specific playlist. In his research on the impact of motion graphics on emotions, Musselman (2013) found that more ornamentation in animation led to positive changes, responses, and perceptions of the brand or messages being displayed. Although more ornamentation resulted in positive changes, responses, and perceptions, too much decoration became seen as aesthetic noise in the motion graphics. This aesthetic noise can become a communication barrier or an imaginative wall between the motion graphic and audience members, disrupting communication.

Although research reveals that people experience positive emotions 2.5 times more often than negative ones (Trampe et al., 2015), negative emotions still exist in most individuals. If not managed healthily, these negative emotions can lead to decreased social function, reduced quality of life, and increased mortality. Handling one's emotions can be challenging for a college student trying to balance multiple responsibilities and other extracurriculars, whether working a full- or part-time job, attending a university, or having a social life outside school or work. There is a great need for expanding academic observation on Lo-fi Hip-Hop and associated graphics that can help clarify how this music and accompanying visualizers can help regulate negative emotions.

This project intends to investigate the relationship between Lo-fi Hip-Hop and music visualizers and their role in mediating digital experiences in physical spaces by creating a space of gathering and equanimity through an exhibition installation. This exhibition will include motion graphics, augmented reality, and sound intended to affect the viewers' emotions and

establish a place of peace and contemplation away from the anxiety and stress of a classroom setting. Allowing individuals to interact with, discuss, and view these installations with others will create community experiences with different perspectives mediated through interactive technology, motion graphics, and sound.

III. PROCESS & FORM

In their book, *Speculative Everything (2013)*, Dunne and Raby propose the concept of "speculative design." They define the term as a form of design that thrives on the imagination to create new perspectives, develop spaces for discussion, and encourage people to imagine what is possible. The use of speculative design allows creative research to move away from traditional methods of how design can approach a concept or idea — allowing individuals to explore alternative scenarios that can be expanded and shaped to a more desirable outcome.

I utilized the speculative design framework developed by Dunne and Raby to ask several questions to further expand my topic First, when it came to the what-if question, I wanted to frame it around, "What if visualizers were being used as more of a therapeutic resource for mental health instead of a form of entertainment?" This idea came from the notion that visualizers are only seen as entertainment to enhance the viewer's listening experience overall. However, this can be pushed further into speculative design based on the therapeutic use of Lo-fi Hip-Hop and accompanying graphics by millennials and Gen Z viewers/listeners. Could these visualizers become more customizable for negative emotions like anxiety, depression, and stress? Could they be recommended to individuals as resources in an academic setting during mid-terms? The next question I chose to address was: "Why should there be a push to create more alternative therapeutic solutions for individuals' mental health?" Mental health has become a more popular topic of public conversation, especially following the recent global pandemic in 2020. According to the World Health Organization, the global pandemic has amplified severe mental health concerns and has put more people in psychological distress (W.H.O., 2022). This project explores the possibility of a more accessible experience to be enjoyed either in private or shared with others and is beneficial to the mental health of the community.

Finally, "How could I explore the potential of interactive technology to make visualizers more customized for the individual listener's health and bring them into a three-dimensional environment beyond the computer screens?" These possibilities are vast, and with the growing development of technology, much like AR, the idea of a visualizer becoming adaptable in three-dimensional spaces for the viewer's convenience is becoming possible. The idea of a customized visualizer tailored to one's emotion could be the next step for individuals' self-therapy. These visualizers could soon be seen as a resource in therapy lounges, academic campuses, or even pop-up installations readily available for the public.

When it came to the visual design of the visualizers, I decided to create a series of looping motion graphics accompanied by Lo-fi Hip-Hop music. These graphics combine detailed patterns and 2-dimensional and 3-dimensional abstract shapes using an isolated black-and-white color palette, typography, and moving graphics, in sync with Lo-fi Hip-Hop music. Focusing on these elements distances the graphics from a narrative. It allows the graphics to reinforce the main qualities of the Lo-Fi Hip-Hop community by focusing on motion graphics, mood, and music. Figures 6–10 illustrate the creative outcome of this series of looping motion graphics; these graphics are projected in a gallery space, as seen in figure 11, and are accompanied by Lo-fi Hip-Hop music that would interact with the audio expressions placed upon them in the program Adobe After Effects.
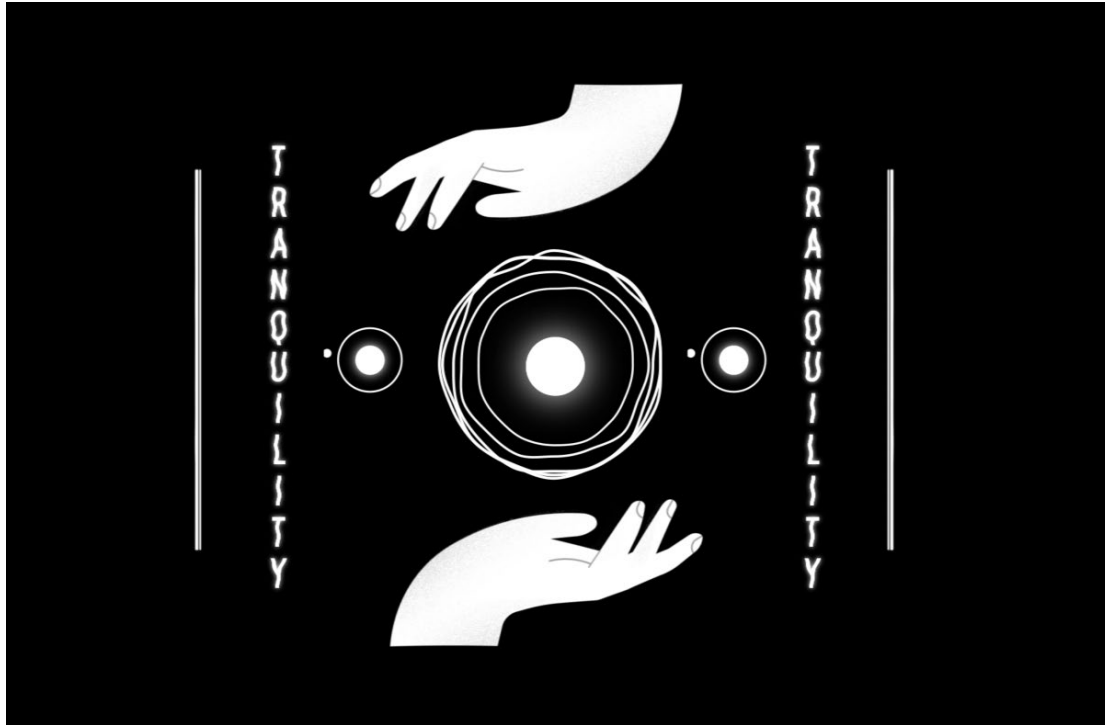
Figure 6. TRANQUILITY by Neakail Tolbert, 2023, Video

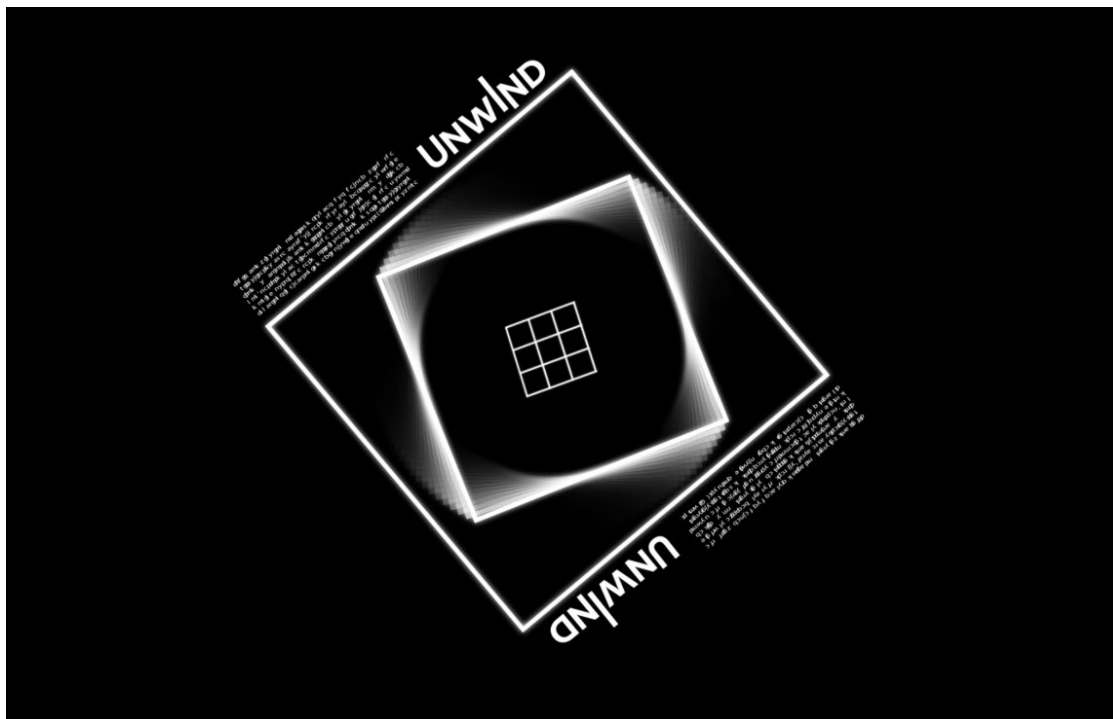**Figure 7.** ISOLATION by Neakail Tolbert, 2023, Video
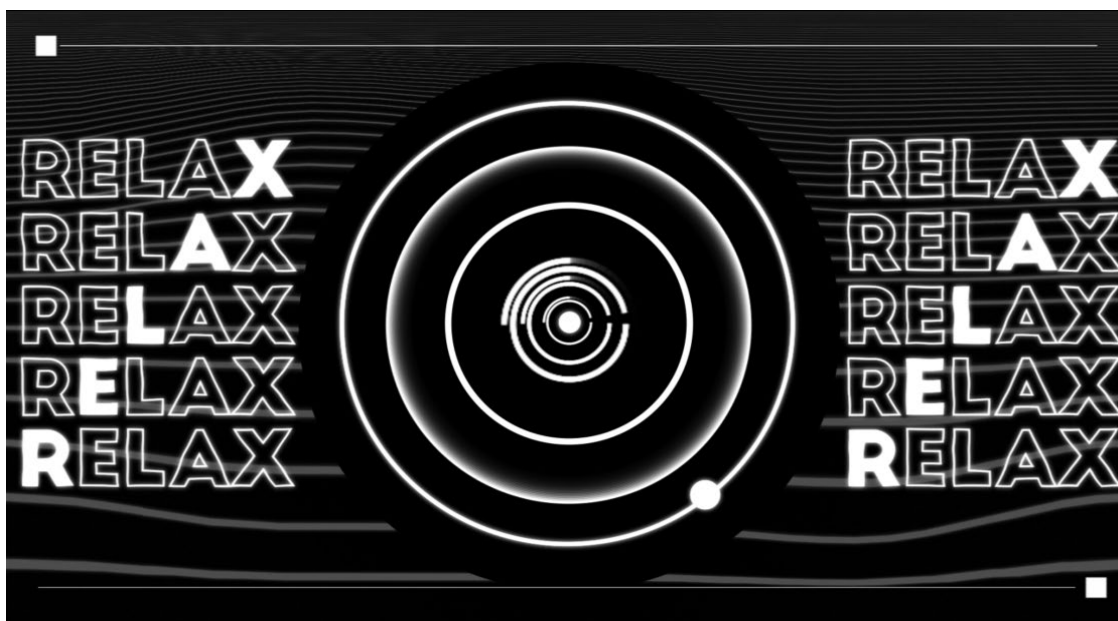
Figure 8. UNWIND by Neakail Tolbert, 2023, Video

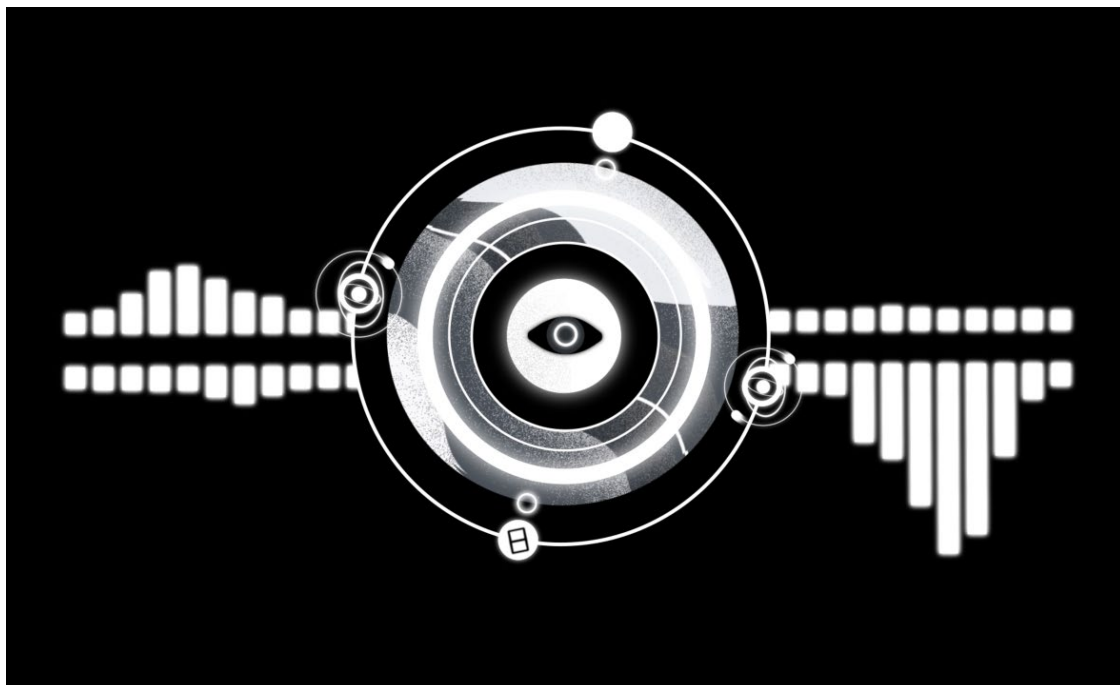**Figure 9.** RELAX by Neakail Tolbert, 2023, Video

Figure 10. MOTION By Neakail Tolbert, 2023, Video
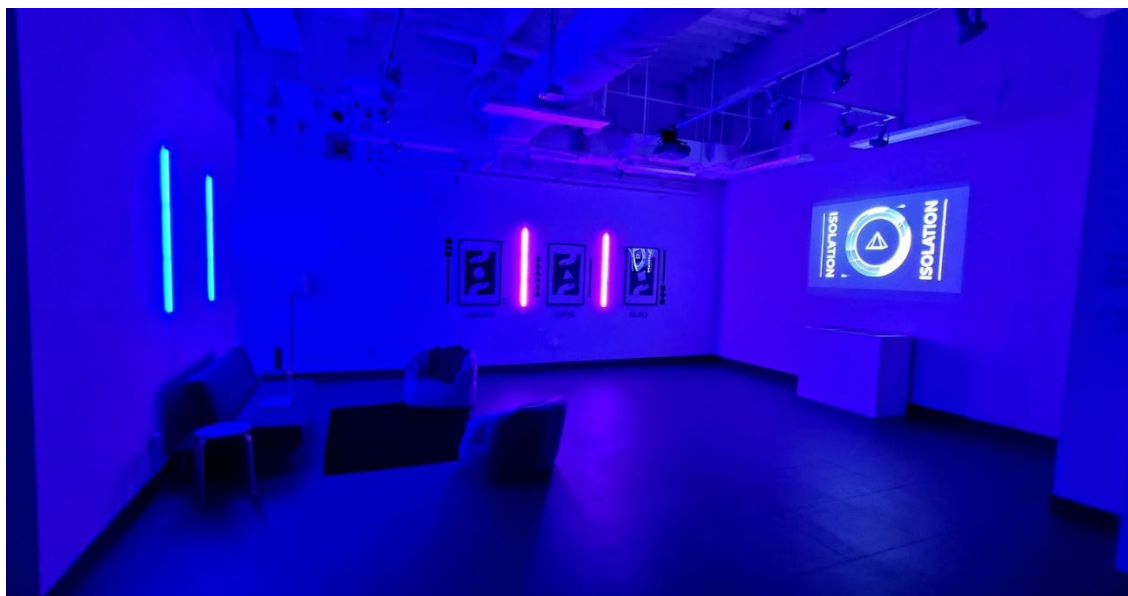

Figure 11. FLEX Space Texas State University, 2023, Exhibition view of MFA thesis installation

With the support of a speculative design framework and AR, I wanted to untether the concept of digital visualizers from the computer screen; to show that visualizers are evolving and moving into new spaces of the viewing experience. My research process consisted of creating rough digital sketches and storyboarding frames in Photoshop to develop the movement direction and visual representation for each shape layer in the final composition. After each sketch was done, I imported the frames into Adobe Illustrator to create 2-dimensional vector shapes that could be imported into Adobe After Effects, a program used to create motion graphics. In Adobe After Effects, I animated the frames to create a short composition and give motion and pacing to selected tracks of Lo-fi Hip-Hop music. I selected these tracks based on high-based audio hertz so that when audio expressions were applied, they would be visible in the composition. I then converted the 2-dimensional shapes from Adobe Illustrator into 3-dimensional objects in After Effects. Other effects, such as noise, glows, and gradients, were applied to help establish a polished and unique visual experience and add visual depth and texture. I exported the finished After Effects compositions and imported them into Artivive — a program for creating augmented reality experiences — in order to assign each of them a unique setting, using variables such as proximity detection, scaling, and looping. Once these settings were applied to the desired image, I printed them as large- and small-format physical posters that a viewer can scan using the Artivive application on Android or Apple mobile devices. This activates the image and allows the viewers to hear and view the designated Lo-fi Hip-Hop track and the augmented reality experience associated with each printed poster.

IV. AUDIENCE & CREATIVE OUTCOMES

This project focuses on a core demographic of millennials and Gen Z viewers/listeners ages 18–30 who are pursuing a higher educational degree. This demographic was chosen because they benefit most overall from Lo-fi Hip-Hop music and visualizers in their everyday lives (Hochberg 2020). These digital experiences help young adults complete tasks such as studying, improving their emotional state, or connecting with one another. In his article, *How Lo-Fi Beats' Nostalgic Comfort Transcended The Memes,* Carson Mlnarik states:

> Lo-fi hip-hop might be a meme, but thanks to 24-hour streaming channels and playlists on YouTube and SoundCloud, these jazzy, inoffensive tunes have become both practical and escapist functions for young people seeking music both for relaxation and concentration. The coronavirus pandemic has led people to log more hours online due to boredom or virtual workplaces and schools, and live-streamed music performances are reaching their full potential (2020).

Later in the article, Mlnarik also describes how the visuals on these Lo-fi channels help create the mood amongst the listeners who may be tuning into the specific live stream:

> The nostalgic and low-key journey listener's experience may also be in part due to the genre's visuals. Popular streaming channel ChilledCow has become synonymous with the anime girl studying to the point of parody, just as Chillhop Music's stations have lent themselves to the cozy raccoon, who only takes breaks from their laptop to give the occasional yawn or beat of its tail (2020).

Even though my target audience is a college student demographic, further research on the topic may expand the benefits to more diverse audiences interested in the Lo-fi Hip-Hop sub-genre, and to other physical spaces. These future applications could be placed in settings like primary school to high school classrooms, leading to research opportunities that could increase the genre's practical uses for mental healing.

I chose to install the proposed graphics on vertical and horizontal surfaces as augmented reality images and video projection in a social space, using one of the campus galleries at Texas State University. This allowed participants to experience the music and graphics in a physical

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setting, rather than the usual online experience of Lo-fi Hip-Hop, in which listeners are physically isolated from one another. My goal in installing a motion graphics projection and AR images was to bring a predominantly digital community from an online to a physical space, invoking in-person communication and connection encountered in social spaces. Many individuals in the millennial and Gen Z demographic face difficult emotions and everyday struggles with life while pursuing higher education. They find relaxation in isolated spaces for their studies. These tend to be spaces where people can take a break, decompress, and put their minds at ease. These areas usually have comfortable furniture in different textures and sizes for extended visits, relaxing lighting to set a warm atmosphere, and gentle music that will allow the mind to drift away ("Maryville University," n.d.). With that in mind, I designed an exhibit space where viewers could relax, gather their thoughts, and decompress in a curated gallery. This space includes an area for sitting and viewing the projected motion graphics, much like a physical Lo-fi chat room.

While in the space, viewers can use the Artivive app to scan printed posters using either an Android or Apple device. This allows users to see the AR motion graphic counterpart embedded into each printed poster on their digital screens. This AR counterpart features a smaller visualizer that uses properties like proximity detection that enable the user to move closer to activate the image, to hear the Lo-fi Hip-Hop track accompanying the experience, or to step out of range to deactivate it. These features allow users to interact with the graphic and view it in real time, giving them free movement for viewing. Outside this exhibit, printed posters augmented with AR are posted around the building to spike curiosity and guide viewers to the main exhibit (figures 12–14).

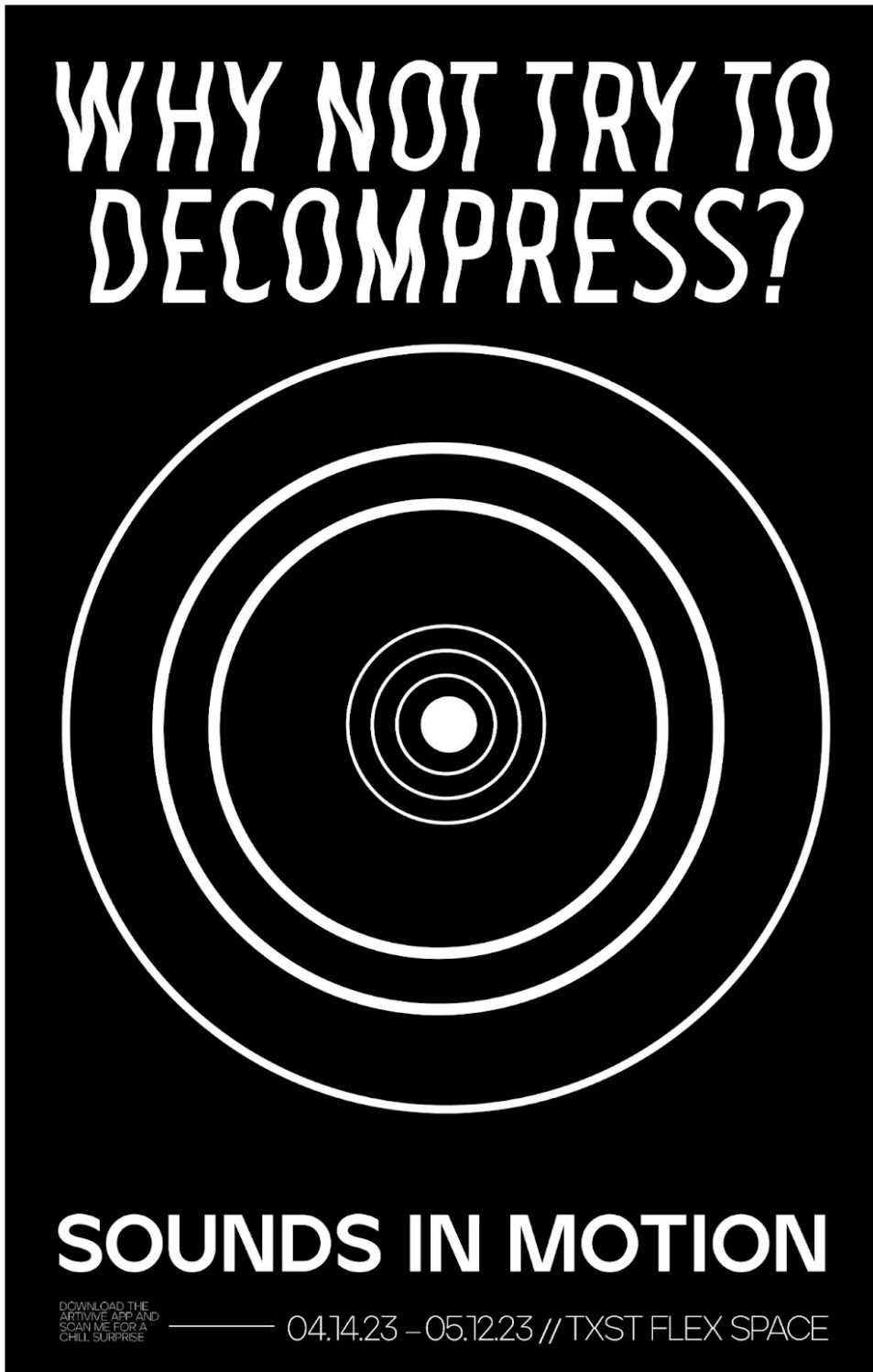**Figure 12.** COULD WE USE A BREAK? by Neakail Tolbert, 2023, Poster

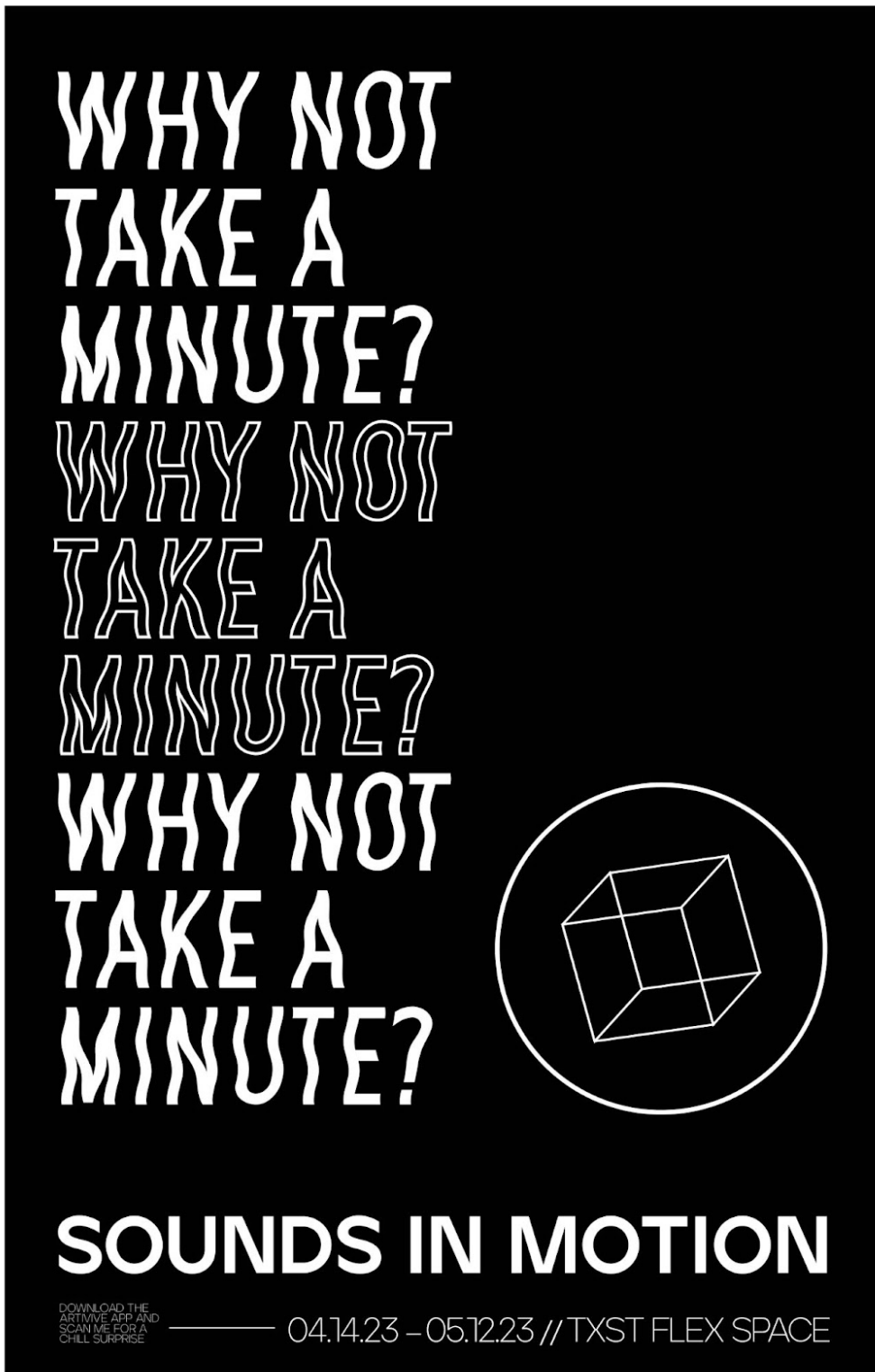**Figure 13.** WHY NOT DECOMPRESS? by Neakail Tolbert, 2023, Poster

Figure 14. WHY NOT TAKE A MINUTE? by Neakail Tolbert, 2023, Poster

The language on the posters serves as an invitation and communicates concern for the audience's feelings and emotions. Overall, this physical space serves as an alternative to digital spaces as a place of comfort, connection, and discussion of music and emotions between friends or strangers.

V. CONCLUSION

The project presented here will help designers gain a new outlook on motion, AR technology, and sound and their applications within communication design and motion graphics. The goal of these applications is to utilize the elements of motion graphics and sound along with developing technologies such as AR to create distinctive spaces that are designed to positively influence the viewer's mood. This project advances the use of AR technology in a digital-to-physical setting. In addition, it uses a speculative design framework to open new perspectives and applications for both motion graphics and communication design in digital and physical settings, along with creating opportunities to research further how a social community's mental health can benefit from motion graphics, AR, and music. Equally important, this presents the opportunity for future implementation of AR graphics to move visualizers into another dimension of the viewing experience. Furthermore, it will show how motion graphics and communication design can translate the aesthetic and ethos of Lo-fi Hip-Hop into physical environments. Further study and creative research in this area of motion design and communication design could augment the mental benefits of custom visualizers and help develop a more tailored resource both digitally and physically for millennials and Gen Z audiences. This project is intended to serve as a resource for designers and researchers looking to explore aspects of motion design in a physical space by creating new experiences using augmented reality technologies, motion graphics, and sound.

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