UNIVERSITY OF CALIFORNIA SAN DIEGO

In-Contact@Zero:
Processing Grief Through Music Composition

A Dissertation submitted in partial satisfaction of the requirements
for the degree Doctor of Philosophy

in

Music

by

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The Dissertation of Nasim Khorassani is approved, and it is acceptable in quality and form for publication on microfilm and electronically.

University of California San Diego

2024

Dedication

Dedicated to my dearest brother, Sina, who has led me in my music journey during his life and beyond

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Acknowledgment

I am deeply thankful for the opportunity to pursue my PhD in Composition at the UCSD Department of Music, where I received the warmest support from faculty, staff, and my colleagues. I am especially grateful to Rand Steiger for his constant support as a PhD student and thoughtful advice on my composition research. Prior to working with Rand, I had the privilege of working consecutively with Katharina Rosenberger and Marcos Balter, who each nourished my artistic development in unique ways. Katharina helped me discover my connection to installation art and the visual language in my music, while Marcos led me through the music notation challenges, especially when composing Faryad.

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ABSTRACT OF THE DISSERTATION

In-Contact@Zero: Processing Grief Through Music Composition

by

Nasim Khorassani

Doctor of Philosophy in Music

University of California San Diego, 2024

Professor Rand Steiger, Chair

This dissertation explores the cyclical relationship between my life and music, feeding into each other through studying five of my recent compositions. My life experience strongly influences my composition, and among all, the grief of losing my brother in 2019 has been the most decisive leader. Conversely, music composition has been the safest and most healing place for me to process my grief. As a result of this grieving process, there have been five pieces composed: *Paper Pigeons* (2019), *Faryad* (2020-21), *Shabah* solo (2021-22), *Shabah* duo (2022), and *In-Contact@Zero* (2022-23). Among all these, *In-Contact@Zero* summarizes the grieving process from the beginning to the final

recovery. I have noticed that the experience of grief has intensified the presence of emotions in my work and has redirected my compositions to a much higher level. The leading force expressing grief through composition has also pushed me toward investigating specific research topics during my PhD studies, including exploring my Iranian musical and artistic heritage, such as the Persian language and Radif (Iranian classical music), and how to present them in my work. This force has also led me to study the essence and balance of visual components and their influence on my work, such as performers' bodies, space, light, and graphics. My compositions, grief, and research form a complex, intertwined network, which makes it hard to track their links precisely. This complexity grows as I age, marking my life-long research process to unfold this network through more compositions in the future.

Introduction

This dissertation discusses a selection of five works that I wrote following my PhD candidacy qualification research: *Paper Pigeons* (2019), *Faryad* (2020-21), *Shabah* (2021-22), and *InContact@Zero* (2022-23). These works reflect my PhD research topics, including musical studies of Persian phonetics, a study of the visuality of performers' bodies in music performance, and space in sound installation arts and music composition. In addition to these works, I wrote other works, such as *Crescendo* (2023) for La Jolla Symphony Orchestra during the last three years of my doctorate studies at UCSD, that have also resonated with my doctorate research; however, these five selected pieces are significant due to their direct connection to the grief I experienced during that period.

- Connection to Grief

Five of my recent pieces from September 2019 to June 2023 are subconsciously linked together as I have been going through the realization and evolving through the grief of losing my brother, Sina. Grief has been the strongest force in my life, significantly transforming my perspectives, personality, and musical expressions. Since this transformation was a subconscious experience when creating these works, this dissertation functions as a reverse engineering research about my composition process.

Music composition has always been a meditation and medication for me to discover and cure myself through various stages of my life. As an Iranian immigrant,

dealing with the loss of my brother on my own and far from my family was a heavy experience. My family members had each other in Iran. At the same time, I could not travel back home because my visa had expired. Additionally, it was too much risk to take as an Iranian international student, both politically and financially, to travel outside of the US to renew my visa.[1] Therefore, I had to go through this grief alone to secure my doctorate studies successfully, and composition was my healing space to reflect and relieve.[2]

The pieces involved in this dissertation are discussed chronologically. *Paper Pigeons* (2019), initially written for the Schallfeld ensemble, is the first piece I wrote after my brother's death. It is dedicated to him and is a memorial piece. The chaotic formal structure of the piece represents my mental state at the early stages of grief, facing the shocking break in my life and feeling rage. *Faryad* (2020-21), written for Loadbang, represents a more conscious space about my grieving process. It coincided with the 'accident' that happened to Ukrainian Flight 752 on January 8, 2020, just a few weeks before the start of the COVID-19 pandemic, where all the passengers, including hundreds of young Iranian students and children, got killed. I mourned deeply for the mothers in Tehran who had just sent their youth to start a new life or those in Canada waiting to see their loved ones flying back home. I found myself in a collective grief that made me grow personally, being able and needing to mourn with people I had never been connected to. This grief felt even heavier than my own

[1] It needs mentioning that there is no US embassy in Iran. Therefore, Iranians must travel to another country to visit the US embassy; which has its own costs – considering the current sanctions on Iran causing skyrocketing inflation and one US dollar becoming 60,000 Iran tomans. In addition, Iranians requests for the US visa get mostly rejected.

[2] Since some readers might comprehend this information as a political discussion, I need to claim that this dissertation is mainly about my compositional journey influenced by my life events, some of which had derived from a political nature but also deviated from politics.

because those families were in much more immediate contact with their loved ones, just sent them abroad, or were waiting to pick them up from the airport, but I still had years to reconnect with my brother – even though he kept me waiting forever. However, later, I noticed his presence in a way I had never experienced before, like being in a continuous sweet dialogue with my brother's ghost, which became my piece, *Shabah*. *Shabah* is in two versions. The first version (2021-22) is for solo double-bell-trumpet, and the second version (2022) is a duo for c-trumpets. Both are written for my friend and colleague David Aguila. And finally, *In-Contact@Zero* (2022-23) is a solo baritone saxophone multimedia piece written for Noa Even. As an audiovisual ritual, *In-Contact@Zero* illustrates the omnipresence of a lost beloved and provides acceptance and healing for the grieving performer and listeners.

- Connection to My Research

In addition to the self-reflection aspect of my compositions, these pieces have each challenged me with specific approaches to sound and visuality that expanded my research in various routes. I categorize my research into two major routes: components related to my Iranian heritage and those related to visuality. Two groups of research components represent Iranian heritage in my music: the influence of Radif (Iranian classical music) and Persian poetry. My research items on visuality include space, body, and language – which the latter also overlaps with Persian poetry.

- Iranian Heritage
    - Influence of Radif

I also bring a layer of Iranian music heritage into my music as an Iranian. My critical approach to Iranian music comes from a transformed Schenkerian analysis, looking into music in layers, like peeling an onion; the deeper layers get closer to core ideas. Surface level structures, such as three-quarter tone intervals – often simplified as augmented seconds, 8/8 meter, and instrumental fusion are commonly used to mark a piece as Iranian. I believe these elements are too accessible and overused, mostly resulting in an abysmal representation of something Iranian.[3] So, I consciously avoid them, or I would expand them if I want to use those elements. For example, the ending of my piece, *Faryad*, led me to write a Radif-inspired melody. However, I expanded that characteristic by adding a downward microtonal modulation throughout that section. I am interested in exploring deeper layers of Iranian music that are least illustrated by other composers, such as rhythmic proportions, fluidity, and phrasing behavior – that I am going to explain in the following.[4]

My music is inspired by the rhythmic fluidity and melodic contour of Radif's (Iranian classical music) system. Radif's rhythmic notation system provides space for interpretation and personal expression while staying accurate and committed to the general rhythmic form. The melodic contour of Radif, specifically in the Daramad sections, has a magical musical power while being centered around one note. The

[3] There are also other discussions about colonialism and its influence on music history and music composition instruction involved in this argument that go beyond the patience of this dissertation.
[4] However, I should also name Bahar Royaee among the inspiring contemporary Iranian composers. She incorporates delicate structures from Radif and Persian poetry in her works, such as her piece for solo violin, *a Hair on the Skin of the Water on the Lake* (2020).

magic happens through the motions of the melody: how long to stay on one note, how far to go from it, when to bring kinetic energy and elaborations, and the balance of intervals throughout the melody. The interpretive space also brings contour variations, adding to its magical quality. My music is inspired by this magic that while focusing on a few neighbor pitches, the melody becomes stronger in bringing magical moments.

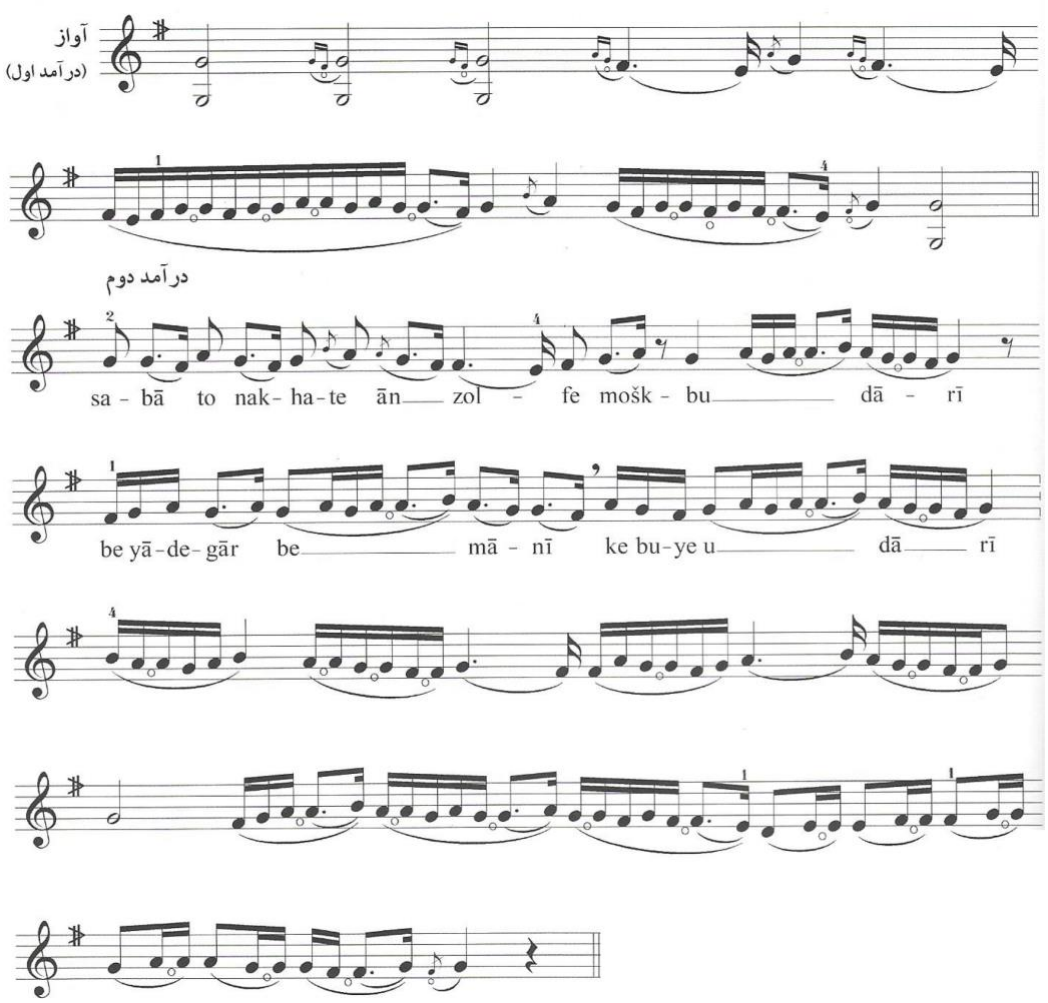

Figure 1 Example of Iranian Classical Music, Saba's Radif, Bayat-e-Tork mode, Daramad (Saba 2003)

Figure 1 shows an example of two Daramads in Bayat-e-Tork mode, from violin Radif written by Abolhassan Saba (1902-1957)[5]. These Daramads are nonmetric and in Avaz form. The first Daramad is a two-system long measure. The second Daramad is longer and has a lot of ornaments and lyrics to guide the performer with phrasing (it is not necessary to sing the lyrics). The key signature indicates F sori, which is between F natural and F sharp and is tuned based on the mode and other strings, similar to the just intonation tuning system. The rhythmic divisions are relative; while one performer can follow a precise metric structure, the artistic expression of Radif requires the performer to make deliberate rhythmic decisions. In Radif's structure, the half notes can vary between the length of a quarter note and a whole note, and the eighth notes can be performed as fast as thirty-second notes. This rhythmic quality makes a floating space that I tend to bring into my music.

Furthermore, as shown in Figure 1 the melody centers around G, Bayat-e-Tork's tonic note. The melodic contour of both Daramads can be explained as just a long G that the rest of the notes are ornaments of G. The magic moments occur in how the ornaments depart, or land on G; in the rests that can last as long as needed; in the non-written rests between the phrases; and in the ending of phrases that end lightly on an eight note. These phrasing characters inspire the rhythmic fluidity and form in my music, mainly appearing as subtly as possible in the skeleton layers of my work. In the following chapters, I will explain these connections individually regarding each piece.

[5] Saba was one of the prominent figures in Radif music whose radif is among the frequent academic repertoire in Iranian music studies for various string instruments such as violin, kamancheh (Iranian string instrument), santoor (Iranian hammer dulcimer), and tar (Iranian plucked string).

- Persian Language in Different Modes

As a part of my PhD research, I studied Persian poetry, which led me to explore the Persian language in non-linguistic modes, using it as a sonic substance or a graphic tool. I explored that decomposing language into phonetics opens access to its sonic qualities beyond semantic restrictions and expands its audience beyond Persian-speaking listeners. This discovery brought deeper layers of Persian poetry into my music. Another outcome of decomposing Persian words into alphabets was opening access to use them in non-semantic ways as pure visual components, which then can be put into motion, turned into video, and interacted with sonic materials.

- Visuality of Space, Body, and Language

My research about visuality started with a critical question on the balance between sonic and theatrical materials of pieces written by a few contemporary composers and myself. In my critical approach, I had assumed visual components were distractive and somewhat a way of cheating in music composition. However, the study not only negated my criticism by introducing visuality as a consistent and non-negotiable part of music performance; it also led me to make meticulous decisions about every visual item of my music. Therefore, the discussion of visuality takes various approaches piece by piece, exploring language as graphics, the performer's body, staging, light, and score. Since my composition tends to take a new approach with each piece, these items might appear fully or only some of them in each piece, which will be discussed individually in the following chapters about each piece.

Chapter 1: Grief

- Grief Theories

Cambridge English dictionary defines grief as "very great sadness, especially at the death of someone," "problems or trouble," and "pain or other physical problems" (Grief 2024). The first theory about grief was introduced by Elisabeth Kübler-Ross, who introduced five stages of grief. In 1969, Kübler-Ross wrote her book, *On Death and Dying* (1969), which studies the psychology of hospital patients dealing with deadly diseases. According to Kübler-Ross, patients facing their upcoming death experience grief in five different stages: denial, anger, bargaining, depression, and acceptance: "In On Death and Dying Kübler-Ross famously delineated the "stages" of denial and isolation, anger, bargaining, depression, and acceptance to meticulously describe the emotional states seriously ill people commonly experienced and the adaptive mechanisms they used to make sense of and live with incurable conditions" (Kübler-Ross 1969).

In 2004, based on this book, Elizabeth Kübler-Ross and David Kessler collaborated on writing the book On Grief and Grieving, which puts these five stages into defining stages of grief. In 2019, Kessler wrote the book *Finding Meaning: The Sixth Stage of Grief,* which adds another stage to grief: Meaning. Kessler believes there is an overlap between acceptance, the fifth stage, and the meaning, the sixth stage: "The first step in finding meaning is the fifth stage of grief: acceptance. We don't like loss. We will never be okay with it, but we must accept it, even in its brutality and, in time, acknowledge the reality of it" (Kessler 2019, 68).

The five-stage theory argues that these stages must be fully experienced; otherwise, the grieving person would need to return to the previous stages to complete the process. Kessler writes in his book:

> To find that peace, we cannot skip over the challenging stages of acceptance. It's not unusual for me to see people early on in their grief trying to jump into meaning prematurely. They feel a temporary rush of purpose. Perhaps they're speaking out about a cause that was important to their loved one, or they're starting a foundation. Or raising awareness about the circumstances of their loved one's death. I often see these people a year later, after they have given the speeches or stated their foundations, when they find themselves newly overwhelmed with grief (Kessler 2019, 69).

According to the five-stage theory, I can argue that my experience of grief of losing my brother started from the fifth stage, the acceptance as if being an international PhD student left me no time to process that grief fully. It means that I had to accept it immediately to be able to survive my life and be able to support my family, not let them worry about my loneliness. I heard the news of my brother passing almost before midnight, right after I finished composing my saxophone and drum set duo I wrote for Patchwork, *Endless Moment* (2019). I never knew this moment was going to become endless. It would have never been completed if I had not finished the piece by then. It was only a month before the start of my second year of PhD, and I had to get myself ready. I did not have any time to duel on reality. He was gone. I had to accept it and move on.

Kessler's argument means that I might have missed fully processing the grief of losing my brother. Should I expect a return to complete the early stages? I had to deal with the grief in a different way, which the five-stage theory misses parts in being

inclusive for individuals like me. The therapist Peter Lewis writes a review of Kubler's theory, critiquing it as "its one-size-fits-all approach" (Lewis 2010). Lewis writes:

> When Kübler-Ross published On Death and Dying in 1969, the country was ripe for her theory of the five stages of life's end, mainly because it touched the zeitgeist: personal transformation through self-awareness. But its one-size-fits-all approach, Konigsberg argues in this probing yet sprightly critique, was not the result of systematic research. Rather, it was the product of anecdote and reflection, and the application of its five stages--denial, anger, bargaining, depression, acceptance--while potentially useful, was hardly universal. "Stage theory" has intuitive appeal, since it suggests predictability and manageability. To her credit, in a nation with an avoidance of addressing death, Kübler-Ross facilitated the discussion of that difficult topic. Then the stages made a jump, from death to grief. With the cultural mood behind her, the stages became orthodoxy, "hardened into a doctrine that dictates not just our reactions but how we define the experience." Entrepreneurs seized the opportunity to create a grief-counseling industry. If you weren't willing to be tutored through grief's lengthy, arduous process, you would become an emotionally toxic time bomb--even though there is no proof for this notion. Indeed, writes Konigsberg, research indicates that Kübler-Ross's stages are not only flawed, but punishing in their prescribed duration, and controlled studies have found no consistent pattern of an overall preventive effect in grief counseling. "Probably the most accurate predictors of how someone will grieve," writes Konigsberg, "are their personality and temperament before the loss and how dependent they were on the relationship to the deceased." The author also explores our natural resilience--"the ability to achieve an acceptable adjustment to someone's death within a relatively short period of time"--claiming that it is more common than complete emotional collapse (Lewis 2010).

Lewis's review points out the infancy of the Stage Theory and that it got much attention Being a pioneer in the study of grief. However, he also adds the flaws of this theory, generalizing a single setting for grievers without taking any personal or cultural nuance. Lewis adds that the Stages Theory can also be destructive for the griever due to its dictating approach as if the person would collapse by not following the stages as prescribed.

Furthermore, there are other missing factors in stages theory: the influence of family and funerals on the grief process. Kaiser Mahmood, Lecturer at the Department of Philosophy G.C. University, writes in a review of Kubler's theory that "grief and mourning are closely related. But if we wished to distinguish between the two, we might say that grief is the feeling of loss we experience as a result of a death and mourning is the process of incorporating that loss into our lives. […] In the United States today, mourning behavior is generally much less formal than among some other cultures or than it was in the past. […] Funerals and mourning customs help to strengthen and reaffirm the solidarity of the family and the social group and to reconstitute them. There are therapeutic rites for the living, as well as commemorative and propitiatory rites for the dead" (Mahmood 2006). In this review, Moahmood introduces four phases of mourning: shock and numbness, yearning and searching, disorganization and despair, and reorganization. He also refers to Dr. Wayne A. Payne to discuss the grieving process in four stages, noting that "each of which varies in strength and form in each individual: internalization of the deceased person's image, intellectualization of the death, emotional reconciliation, and behavioral reconciliation" (Mahmood 2006).

Mahmood's grief theories connect closer with my personal experience in the ways it recognizes the individuality of the experience, as well as the cultural and social impacts on the grieving person. In Iran, families hold more than one funeral on multiple days: on the first day, on the third day, on the seventh, on the fortieth, and annually. However, since I did not have the situation to participate in funerals, I was not able to fully receive therapeutic support from socializing during these events. Also, on the contrary, I had to adapt to what is more common in the United States, with less

mourning, and try to focus on my studies. I think these are essential factors in positioning music composition as a safe therapeutic space for my grief, where I could choose how to navigate connecting with my society (my audience) while creating my own (musical) culture in a different cultural space.

There are many other theories about grief that they all connect with my experience. However, as it becomes clear that grief is an individual process, I will narrow this discussion to my process. Using the keywords from the theories mentioned above, I can describe my grief as a process that started with a compact moment of shock, anger, and acceptance, all combined that lasted heavily for about a month. Then, this moment faded into and overlapped with a long period of numbness lasting about six months. Then, the Ukrainian flight tragedy woke up my left-out mourning and took my grieving emotions to the highest. This moment turned into *Faryad,* which became the starting point of my recovery. It decreased increasingly through *Shabah* and was finalized in peace by *InContact@Zero*. Accordingly, illustrating my grief process can look like the graph below (Figure 2). However, I can still expect returns in the future, as I do not entirely reject Kessler's idea. This graph is the portion of the process I have passed so far and connects me to my recent compositions. This graph can help the reader of this dissertation better connect with my grief process in each piece (explained in the following chapters) as it summarizes it visually.

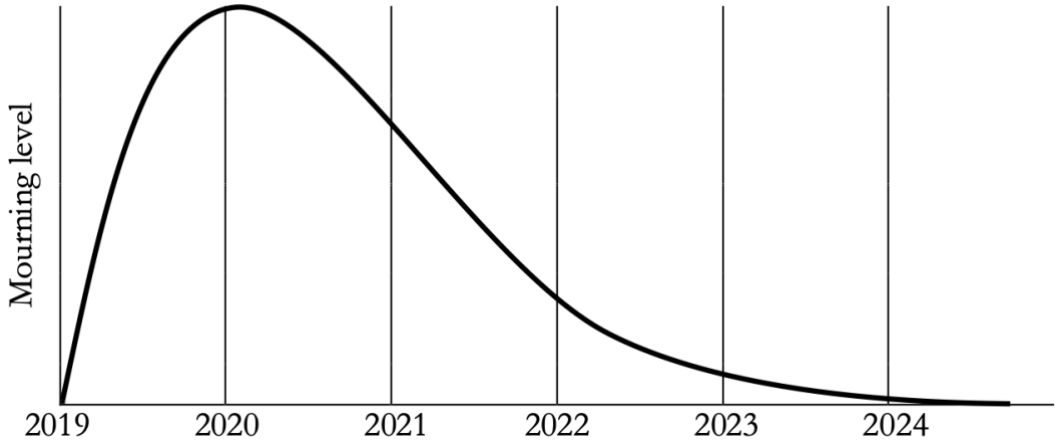

Figure 2 Graph of my grieving process

- Music Composition and Grief

Having explained the psychological theories about grief and my experience of the grieving process, it is now vital to discuss where I stand as a music composer bringing grief into my music. Music history is full of pieces illustrating mourning, death, and grief, but to me, they usually have been too passive, top-down, and in story-telling narration forms. As a listener of those works, I have felt distant from the composer's feelings. It is crucial to connect and get closer to my audience as a composer. Therefore, my music's experiential, spatial, and installation-like characteristics lean stronger toward sound-installation artists, where there is enough room for the audience to make various interpretations or physically engage with the work. There are still characteristics that I have borrowed from other composers: the rituality of Stockhausen's works and how he engages his audience, the timbral beauty of George Crumb's *Black Angel,* and how he combines contrasting feelings of joy and fear simultaneously. I like creating a ritualistic space to bring the audience into my music, as *InContact@Zero* extends my ritualistic approach to its maximum by using visual elements such as projection and the performer's body. I have also found that

the emotional combo in Crumb's *Black Angel* opens doors for the listener's interpretation while being in a narrative space, which is a similar approach to the one I used in writing *Faryad.*

Coming back to the grief topic, I would like to briefly discuss the three following examples in connection with my compositional approach: György Ligeti's *Requiem* (1963-1965), Steven Takasugi's *Sideshow* (2009-2015), and Janet Cardiff's *The Killing Machine* (2007). Of these examples, although Janet Cardiff's *The Killing Machine* is a pilot installation, it has had the most inspiring influence on my works, specifically in shaping *Shabah,* which I will explain later in Chapter 4.

Although I categorize Ligeti's Requiem among descriptive pieces of grief, some elements are similar to my compositions. Ligeti's Requiem's use of the low register at the piece's beginning is similar to my approach to death in *Faryad*, pushing voice to the extremely low borders. In this piece, Ligeti starts by illustrating the moment of death. The extremely low register sounds on the border of where the voice tends to disappear. This timbral quality creates the sonic impression of the inability to breathe and the melancholic mysteriousness of the moment of death. Then, the piece gradually builds up on the mourning and sadness moments of grief, represented by the cluster cloud chord structure, chaotic rhythmic structures, and higher dynamics. The piece finds resolution and peace at the end, fading into higher partials.

The narrative character of the piece limits the audience's perception to a single dimension described by the piece. The story has a clear start and end, which limits having an interpretative space for its listener. In addition, the illustration of grief is limited in this piece, focusing only on the mourning part of the grief. My music,

however, has avoided mourning and has approached grief with either a fighting or acceptance perspective, as if I did not have enough time to mourn as a PhD student or did not want to mourn the loss of my brother for the sake of my family. I have approached grief as a call for action, help, awareness, or an invitation for acceptance and peace to open space for interpretation and connection. In other words, *Paper Pigeons* is a memorial that fights against reality while calling for the honorarium of my brother. *Faryad* is a fight and calls for action, help, and awareness. *Shabah* and *InContact@Zero*, on the other hand, bring attention to acceptance, peace, dialogue, and recovery. My musical approach has consciously avoided bringing mourning into my music; in other words, I have tried to hide my mourning from my audience.

My approach to grief aligns more with Janet Cardiff's and Steven Takasugi's in ways that the grief comes from the audience's reflection on the emotional components of the performance. I have been inspired by the one-on-one situation that Cardiff creates in her installations and by the raw, intense, and unfiltered emotions that Takasugi brings to his music.

Takasugi's *Sideshow* indirectly makes the audience feel grief. The audience observes discomfort in the performers' bodies and music. This discomfort is one of the after-effects of feeling disgusted or raged by the causing elements of the grief in the story. So, Takasugi brings emotions less directly related to experiencing grief, which are musically under-represented emotions. Thus, initially, it might seem hard for the audience to connect the topic to grief. The first impressions might feel odd, but the story's brutality reveals itself through time and intensity increases. Takasugi's indirect approach to grief is similar to my compositions despite its well-crafted

disgusting aspects. Similarly, I value sharing less represented feelings about grief in my music, making it more personal to my life experience.

Janet Cardiff's *The Killing Machine* is based on Abu Ghraib prison executions (Cochran 2018). It puts the audience in a solo position to follow an order, push a button, and sit and watch the result. Then, the robots perform a long torturing execution on an imaginary person attached to a chair. In this situation, the artist has taken us inside the effect of grief, which has a more profound emotional impact than narrating the after-effects to the audience, like Ligeti's example and many other works about grief. In other words, Cardiff and Takasugi cause suffering for the audience instead of describing it, which is the approach I prefer.

Cardiff's work is emotionally heavily loaded because it solidifies the audience as if she takes them to a one-on-one conversation. Singular audience space is possible through an installation setting using machines. Having a single listener in a concert setting is impossible due to the performer's physical limitations, which also limits time. However, I learned from Cardiff that leading my listeners to follow meaningful actions can help them connect deeper with the emotional sides of my work. In the following chapters, I describe my composition process through the five individual pieces and explain how each processes grief and provides healing.

Chapter 2: Paper Pigeons (2019)

Commissioned by Schallfeld Ensemble, I wrote this piece in 2019, two months after losing my brother. I was deep in the grieving of the loss of my brother, and my feelings were combined with intense rage, wishing to be able to bring him back. My brother was the most inspiring and leading person of my life, pushing me toward achieving my goals: "Well done, kiddo! But you need to push yourself to do better," he used to say with the sweetest and most playful smile on his face every time I composed a new piece. I wanted this piece to be a farewell message to my brother, appreciating all his encouragement and honoring his heroic figure in my life. So, it needed a compelling formal structure.

Being limited to a ten-minute duration, I decided to design the formal structure of the piece so that there would be a vital event in every second of the piece. The piece comprises intertwined fast gestures that bring a glance into a timbral climactic short moment. I also wanted to challenge myself in orchestration for this ensemble. I had previously written for the No Exit ensemble with a similar chamber instrumentation, and I wanted to expand my timbral writing skills in writing for this combination. So, the piece is composed of micro-moments that each bring a new timbral quality resulting from micropolyphony-inspired gestures, in contrast with harmonic long note moments on strings. Figure 3 and Figure 4 below show an example of these contrasting moments happening in bars 9 to 12.

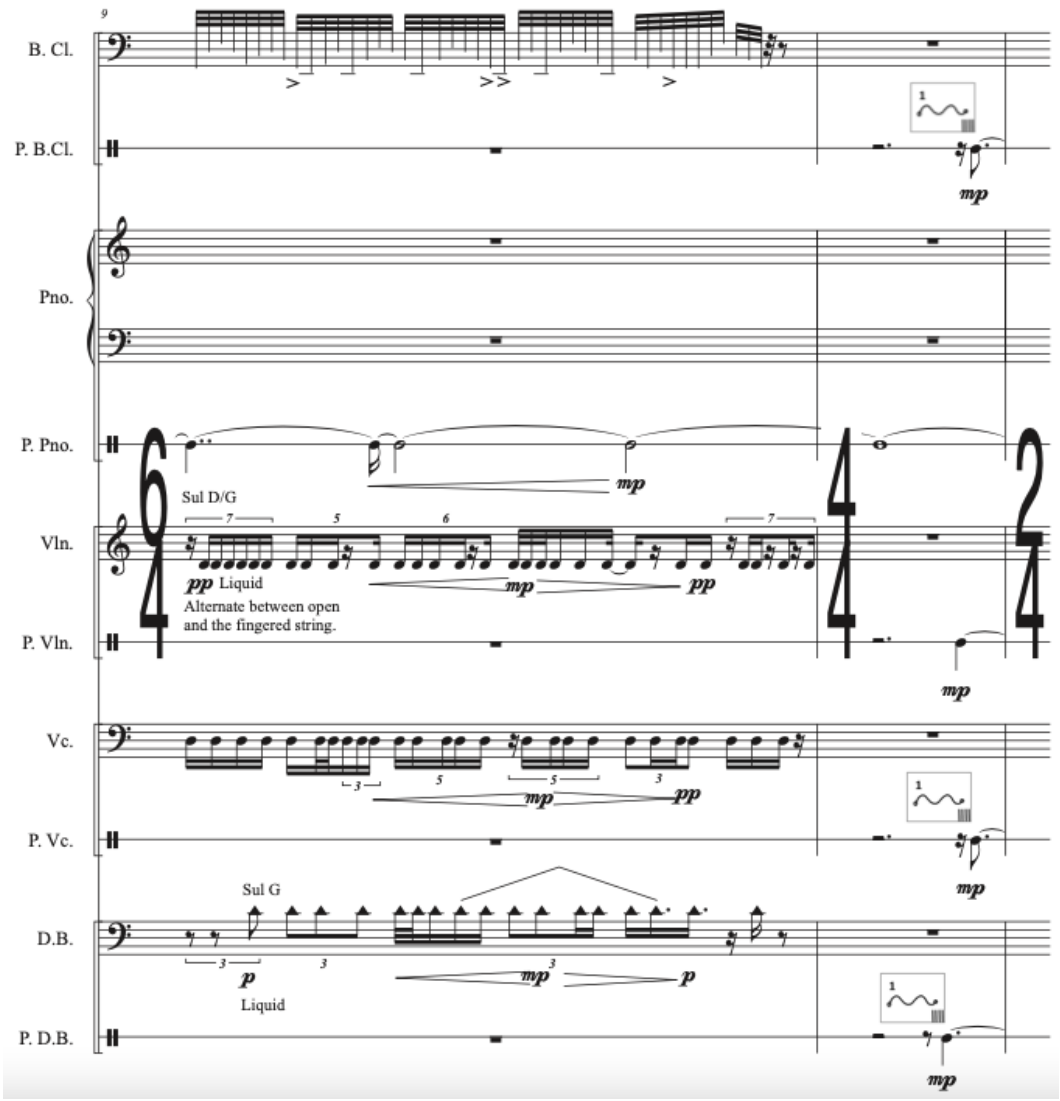

Figure 3 Getting into micropolyphonic contrast, bars 9 and 10, *Paper Pigeons*

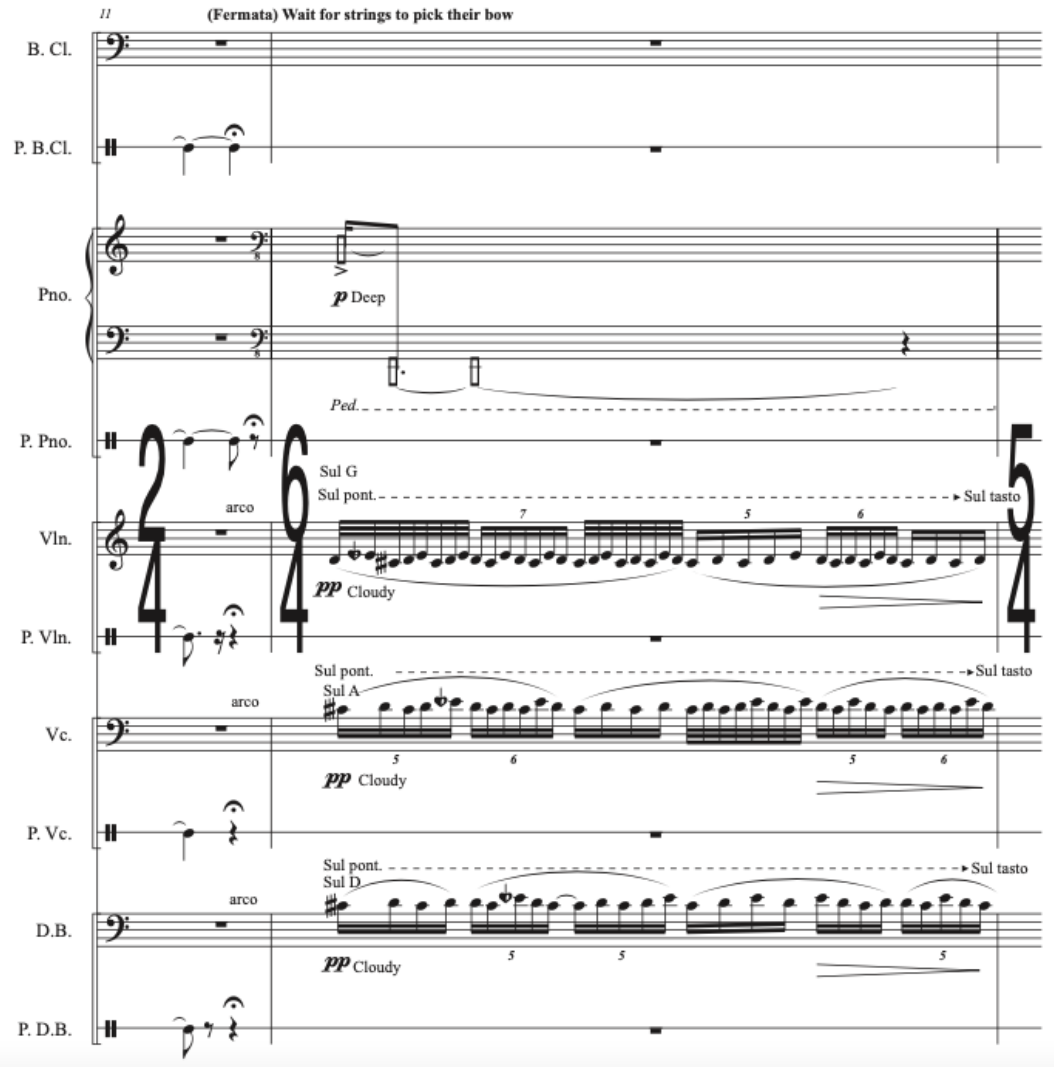

Figure 4 Micropolyphonic moment, bars 11 and 12, Paper Pigeons

The micropolyphonic moments in bars 9 and 12 (Figure 3 and Figure 4) contrast the piano's sustained gesture of cluster chord. It is also worth mentioning that even though the paper actions in bars 9 for the piano and 10 and 11 include long-duration notes, the sonic result of that action would be similar to the rhythmic gestures of bars 9 and 12. Further in the piece, the contrasting changes take a much faster pace. Figure 5 shows an example from bars 40 to 42 of the score, that micro-polyrhythmic space among hand-muted strings and bass clarinet is interrupted by moments of slap-tongue, unmuted higher registers, and glissandos.

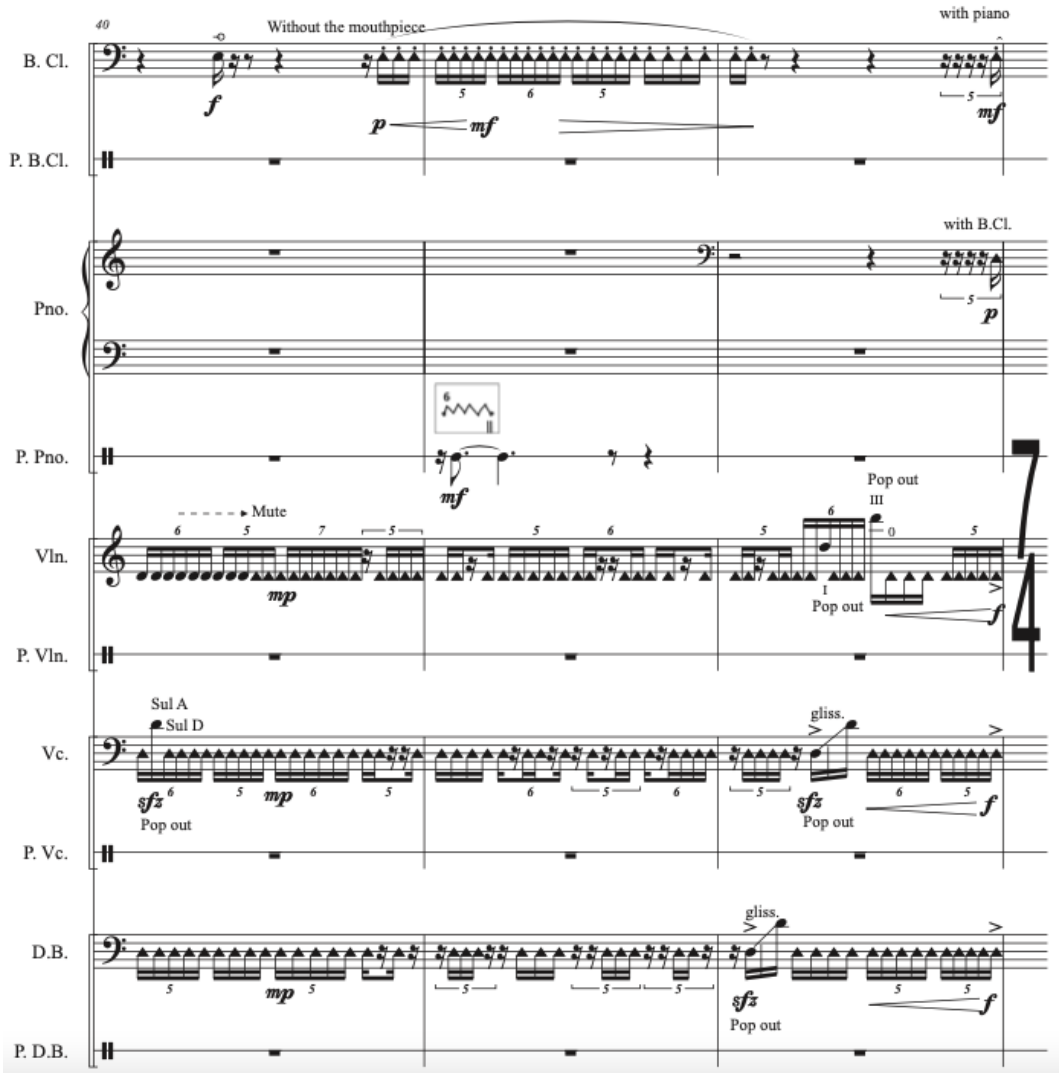

Figure 5 Example of contrasting moments in *Paper Pigeons*

My goal was to experiment with using contrast to see if it can adequately help bring up moments getting pronounced within the fast-paced shifting form of the piece. However, I am unsure if the timbral and character complexity of the piece became audible enough within the ten-minute frame of the commission. This experience has helped me realize that my instinctual composition leans more toward slower pacing and more gradual transformations in my music. If I were to revisit this piece, I would have given each moment much longer to live and thrive organically. I would also

incorporate more silence into the piece to provide the auditory experience with enough space to process the sonic form.

- Indirect Presence of Radif

It is also worth noting that the melodic contour in micropolyphonic gestures of bar 12 (Figure 4), centered around one pitch, D, in each instrument part, is similar to that of Radif. As mentioned before, in Radif melodies, the pitches stay around a specific pitch center (called Shahed) before moving toward other pitch centers of the mode. The centric quality of D is also emphasized by the contrasting gestures in bars 40 to 42, as discussed above in Figure 5. Additionally, the micropolyphonic-inspired moments are derived gestures from the ornamentations before any long notes in Radif, as discussed in the introduction. According to all mentioned above, it is arguable that the contrasting moment of strings in bars 47 and 48 (Figure 6) is the ultimate moment of the piece that – inspired by the magical moments of Radif – the previous pitch center D goes to G, as a G minor chord shaped by the harmonics. Therefore, the presence of Radif intertwines with the formal structure of the piece, which might not be apparent to the listeners. However, it has influenced my thought process and composition of the piece.

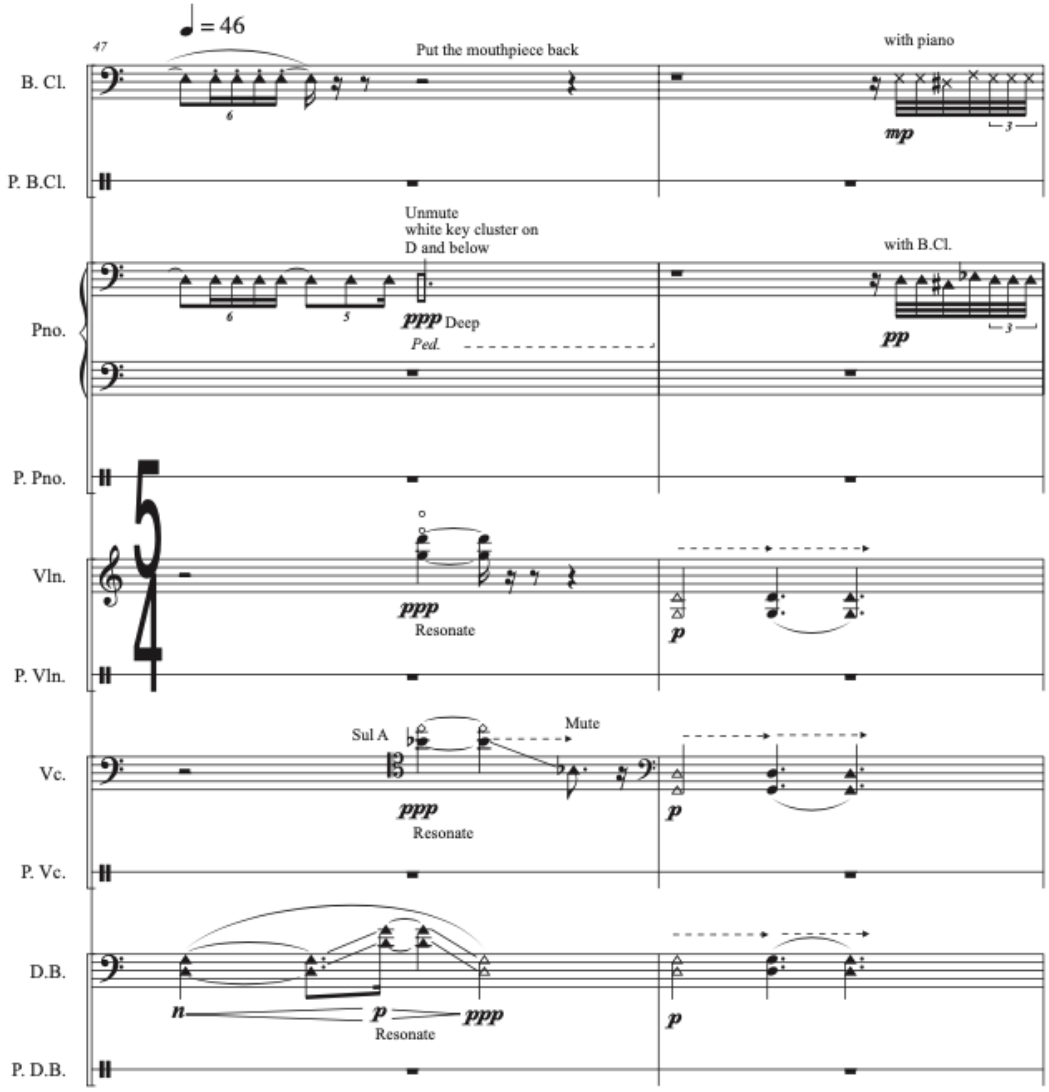

Figure 6 Magical moment of G minor chord in harmonics

- Using Paper as a Musical Instrument

However, returning to the timbral discussion, I felt a sound was missing in the ensemble – the instrumentation was bass clarinet, piano, violin, cello, and double bass. My instincts led me toward a particular packing paper I found in Walmart deliveries. I was specific toward this paper due to its soft, rounded, and low-frequency range

qualities.[6] These qualities meticulously separated my paper choice from any other usual printing paper (those would have a very dry sound with a much higher spectrum), wrapping paper (primarily creating a higher spectrum, as well as visually distracting), and newspapers (although similar type of paper in quality and size, but visually distracting). I realized the paper's size, thickness, and density were prominent factors in its spectral qualities. The larger and thinner the spectrum, the lower the frequencies, and folding and crumpling the paper would lower the frequencies by decreasing the paper's density. Therefore, I started experimenting with the paper in various layers, folds, and actions. The result was a series of eleven specific actions on the paper, which verbalizing would not have been accurate enough to instruct the performers. This challenge led me to use video recordings embedded in my score to give more coherent instructions for the paper actions. Figure 7 to Figure 10 below show screenshots of video instructions for paper actions 1, 5, 8, and 11.

Figure 7 Screenshot of video instruction for the paper action 1

[6] I was meticulous to the point that I had to call Walmart to make sure the paper would be the exact creamy soft packing paper, and not the rougher brownish one. They would have completely different sonic results.

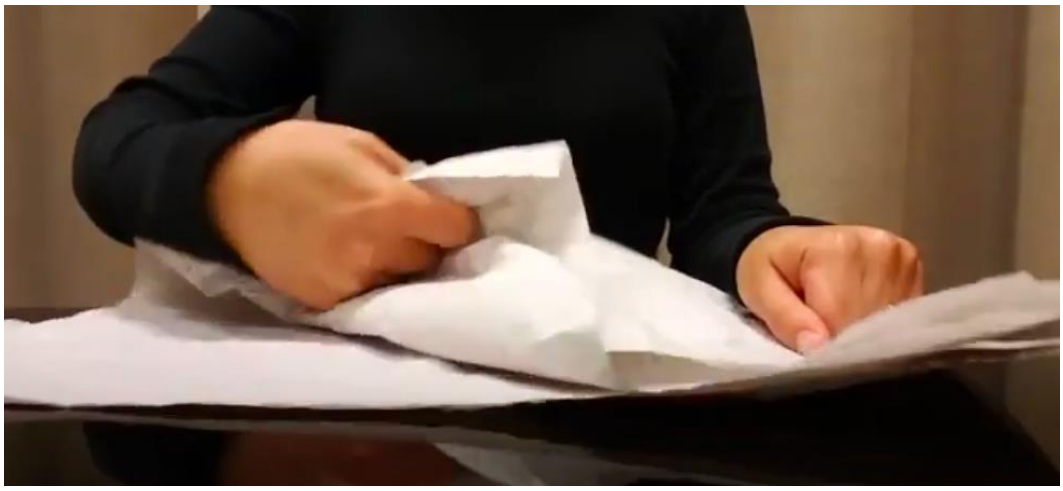

Figure 8 Screenshot of video instruction for the paper action 5

Figure 9 Screenshot of video instruction for the paper action 8

Figure 10 Screenshot of video instruction for the paper action 11

This paper functions as a connecting timbre, blending the ensemble with soft and cloudy tones and rhythmic qualities that organically result from each set of actions on the paper. So, each performer was given single-layered, double-layered, and quad-layered papers. All paper pieces must be crumpled slightly enough to have a few wrinkles. These wrinkles give paper pieces a level of flexibility and softness to perform, eventually creating a rounder sound with lower frequencies, which I aim for.[7] Figure 11 shows the graphic notations for the paper actions.

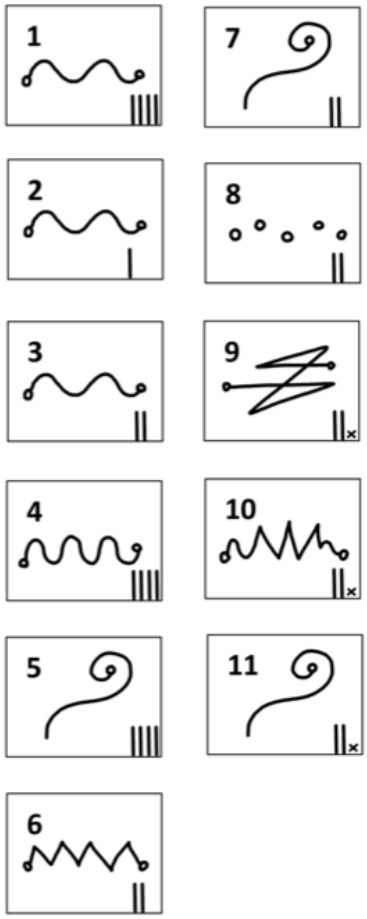

Figure 11 Graphic notation symbols for individual paper actions

[7] Later, in my orchestra piece, *Crescendo* (2023), for La Jolla Symphony I used same paper techniques as my percussion instruments.

As instructed in the score about the graphic notations shown in Figure 11, "the number in each box refers to the related video number; the vertical lines on the corner shows the number of layers of the paper set; the X mark next to vertical lines shows the 2-layer set specified for actions 9, 10, and 11; and the gesture in the middle of the box represents the movement direction and its quality". I have previously shown screenshots of the video instructions for paper actions 1, 5, 8, and 11, and their relative graphic notations are available in Figure 11, following the same numbers. I have chosen these four actions due to their contrasting timbral quality and behavior throughout the piece. As you can see in Figure 11, the horizontal wave line of number 1 on a quad-layered paper intensifies by number 4, as numbers 2 and 3 present the same wave line action on single-layered and double-layered papers, respectively. Then, you can see that the action on the paper changes by number 5, rolling the quad-layered paper from a corner. The numbers 7 and 11 repeat the same action, but the quality of the paper is different for each. In number 7, the paper is double-layered instead of quad-layered, and the same paper marked by X in number 11 sounds different due to being crumpled – number 9 shows the action of crumpling the paper. On the other hand, the softness of action number 8 contrasts with the rest of the paper's actions, specifically numbers 6 and 10, which are intensified versions of action number 3 – as number 10 is a crumpled paper as well.

Each paper action creates a different spectral and rhythmic characteristic that combines with instrumental gestures. It is arguable that numbers 9, 1, and 6 are the loudest of all actions and can cover the instrumental sounds. On the other hand, actions such as 8, 11, 7, and 5 are the softest, respectively, and would require quieter

space to be heard. Therefore, to accurately convey the sonic instructions in my score, it was necessary to maximize the audio recording accuracy as much as possible.

- Recording Challenges

Accordingly, recording their sound as accurately as possible was essential, which was challenging as my first recording attempt turned the audio dryer and percussive. Therefore, I needed to find the proper microphone, although I did not know enough about audio recording. In this regard, I am so grateful to David Espiritu, the UCSD music department audio engineer who helped me find the correct type of microphones for this purpose. I met him for a few seconds as I walked by and asked him what microphones to use for recording paper, and the microphones he recommended were right on the spot: SM27 and Audio Technica Large Diaphragm. In my later interview with Espiritu, he explains why these microphones were effective in recording the paper:

> Both microphones are condenser microphones and large diaphragm… So conductor microphones tend to not need too much [power] to work, especially cause you apply [a] fan of power to them. So they're already pretty hot mics. And yes, I would consider them. And, very good mics for kinda just everything, you know, you can kinda put on everything, [and] you'll probably get like a decent sound. Now, I've never recorded paper, so I just, I kinda understood it from you wanted it to be like it was right in your face. Like you wanted to really hear the paper. And because conventions don't need much, I think that's perfect because you don't want it to be blow. You, you still want it to feel like paper, you still want it to sound like paper you just want it really in front of you. So, I already kind of knew that a condenser would be great.
> No matter what, a large diaphragm, over small diaphones, I think you get a bigger sound. And more space-wise, too, depending on where you record. And SM27, I use a lot here… And then I only said the audio technical because that's just another large diaphragm microphone that you could check out. Some people like Audio Technica's microphones. I'm not a big fan of them. I don't. I just

> wanted to give you like, some flavor. Oh, I can see which one [is] getting the sound. But technically, I think it was kinda right on the point. You wouldn't want a dynamic microphone on paper because that's gonna be super soft (Espiritu 2024).

According to Espiritu, the sensitivity and diaphragm size of both these microphones give a lot of advantages when capturing soft sounds such as paper. The large diaphragm models produce a fuller, more spacious sound, which is necessary for capturing the texture and proximity of a sound like paper. Additionally, a condenser microphone would provide more accuracy when recording paper than dynamic microphones, which may produce much softer sound than the original. These qualities make SM27 and Audio Technica Large Diaphragm among the ideal options for recording paper. In addition to the instrumental function of the paper, it also combines spatial and ritual elements of the piece, which are discussed in the following section.

- Ritual, Light, and Space

Another dimension of using paper is connecting the ensemble timbers and the stage to the audience. As a memorial piece, it was essential to eliminate the applause at the end while engaging the audience meaningfully. Using the same type of paper in a crumpled ball could allow me to share the sonic aspect between the stage and audience seats and hide a message inside the crumpled balls to share with the audience. Each audience member was given a crumpled paper ball by the entry and asked not to open it until the conductor would cue them. So, at the end of the piece, as the ensemble fades out with the papers, the conductor turns back to the audience and cues them to open their paper balls. This moment brings the paper sound to travel from the stage to the audience. In other words, this movement of sound from stage space to audience

space can be explained as a manual spatialization. By this spatialization, there is no border between the performers and the audience: the seats become parts of the stage, and the audience members become performers. This spatialization is also a metaphoric illustration of giving farewell to my brother's soul, as pure and white as pigeons – also as examples of innocent souls that he used to help – flying off the stage.

At this moment, everyone is responsible for the event. The audience cannot passively sit and lay back. Also, when the message inside the paper balls reveals itself, it reinforces the listeners' engagement: "This is a memorial piece. Please do not applaud afterward." This information had not been – and should not be – previously shared with the audience. In addition, I have deliberately avoided sharing any information about the piece in the concert program, except for the necessary reminder instructions for the audience: "You have been given a paper ball at the entrance to the hall. Please hold on to it until the conductor cues you; at that moment, the light returns, which is the cue for you to unfold your paper ball." Therefore, the message of suddenly revealing a memorial also heightens the audience's emotional state and accentuates their presence in the performance.

Furthermore, I have used simple lighting adjustments to emphasize the conductor cue and transform the space. During the performance, lights above the audience are dimmed or off by conventions. So, the brightness increases above the audience visually, emphasizing the conductor's cue for the audience to open their paper balls. Once the paper balls are all opened and the sound settles down in the hall, the light turns pitch black. At this moment, the performers freeze, relax in their positions, and perform for one minute in silence, led by the conductor. This moment

situates the audience in a guided memorial event without giving direct and clear verbal instructions about what exactly happens in the concert. The listeners are faced with the events as they happen through time. In other words, the ritualistic aspects of the piece, by being time-dependent, are directly linked and part of the music itself. After a minute of silence, the performers leave the stage in silent darkness.

The audience was previously put into a sudden memorial, and they are now left alone in the darkness. Also, the audience does not have the chance to release their energy through applause, as they conventionally expect; they can feel contained in some ways. In some ways, the piece might feel like it fades out in an emptiness. This ending can emotionally heighten the experience of the sorrowful message of the memorial.

Chapter 3: Faryad (Scream) (2020-2021)

I wrote *Faryad* for the Loadbang ensemble in reflection on my collective grief for the Ukrainian flight's victims, which felt more substantial than even the loss of my brother. I was feeling for all those mothers who lost their young children. It was a raging grief, and I found it resonating with the poem, *Faryad* (1985) – meaning scream, by Mehdi Akhavan-Sales (1929-1990), a Persian modernist poet. The poem is about a political call for freedom and raising against dictatorship, written during the kingdom era of the Iranian regime. In this poem, Akhavan-Sales uses "my house" as a metaphor for my country, which he then describes as being set on fire. He illustrates himself shouting for help as burning with the house is on fire. As I found myself grieving with many other Iranians, feeling helpless as hundreds of innocent people got 'accidentally'

killed. At the same time, the government had no convincing response to the event, so this poem described my grief the best.

- Phonetic Timbres

There is a linguistic aspect of my research that connects with this piece. During my PhD candidacy qualification research, I explored the musical abilities of Persian phonetics by analyzing poems by the Iranian modernist artist and poet Sohrab Sepehri (1928-1980). In this study, I explored ways to share the lingual context of the poem through phonetic sounds, which can go beyond the boundaries of a language. In other words, I learned ways to convey the poem's meaning to a foreign audience without providing translations. The reason for my emphasis on deviation from translation is that it removes the sonic capacities of the original language, and those capacities are musically and culturally critical. Therefore, I analyzed this poem according to the sonic potentials of its phonetics. The image below (Figure 12) shows my handwritten notes, analyzing the phonetics by color coding. Table 1 below shows the portion of the poem I chose for this piece alongside the text in Persian IPA and English translation.

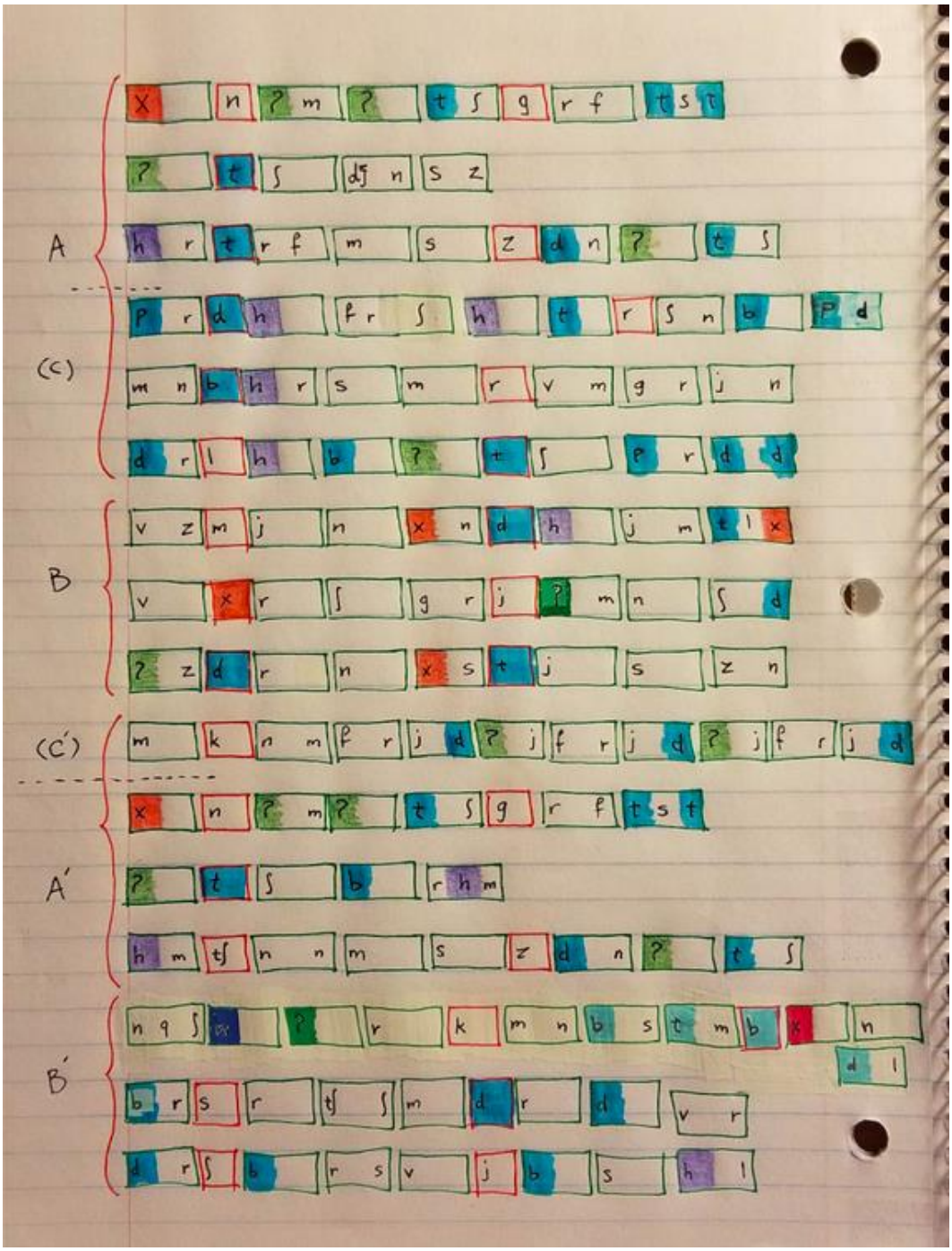

Figure 12 Color-coded phonetic analysis of consonants of the poem

Table 1 The text from Faryad in Persian IPA and English Translation.

Poem in Persian	Poem in IPA[8]	Poem in English
خانه‌ام آتش گرفته‌ست، آتشی جانسوز.	xɒneʔæm ʔɒtæʃ gereftæst, ʔɒtæʃi dʒɒnsuz	My house is on fire, soul burning, ablaze in every direction. Carpets and curtains threaded to dust. With the smoke of this raging fire I sob, run to each corner Shout, scream, yelp with the voice of a sad howl and bitter laughter.
هر طرف می‌سوزد این آتش،	hær tæræf misuzæd ʔin ʔɒtæʃ,	
پرده‌ها و فرش‌ها را، تارشان با پود.	pærdehɒ vo færʃhɒ rɒ, tɒreʃɒn bɒ pud.	
من به هر سو می‌دوم گریان،	mæn be hær su midævæm gerjɒn,	
در لهیب آتش پر دود.	dær læhibe ʔɒtæʃe por dud	
وز میان خنده‌هایم تلخ،	væz mijɒne xændehɒjæm tælx,	
و خروش گریه‌ام، ناشاد،	væ xoruʃe gerjeʔæm, nɒʃɒd,	
از درون خسته‌ی سوزان،	ʔæz dærune xæsteje suzɒn,	
می‌کنم فریاد، ای فریاد! ای فریاد!	mikonæm færjɒd, ʔej færjɒd! ʔej færjɒd!	
خانه‌ام آتش گرفته‌ست، آتشی بی‌رحم.	xɒneʔæm ʔɒtæʃ gereftæst, ʔɒtæʃi biræhm,	My house is on fire, a merciless fire, burns without respite, all images drawn with my blood on every door and wall in this damned and endless night.
همچنان می‌سوزد این آتش	hæmtʃenɒn misuzæd ʔin ʔɒtæʃ	
نقش‌هایی را که من بستم به خون دل،	næqʃhɒʔi rɒ ke mæn bæstæm be xune del,	
بر سر و چشم در و دیوار،	bær særo tʃæʃme dæro divɒr,	
در شب رسوای بی‌ساحل.	dær ʃæbe rosvɒje bisɒhel.	

In my phonetic analysis of this poem, I emphasized x (خ) and ʔ (ا) consonants because of their timbral qualities, their position in words and the verses, and the meanings they could carry. The glutaral consonant x (خ) is the sharpest consonant in

[8] I use The Persian consonant IPA based on my linguistic research and auditory examination as a native modern Persian speaker from Tehran. Different references introduce various Persian IPA charts; among them, I have found the Oxford book by Golnaz Modarresi Ghavami to be the most accurate one (Ghavami 2018). However, I prefer using my own version of Persian for my musical purpose IPA because it is based on how I hear and speak Persian.

Persian as it comes from the very back of the throat; in some ways, it can also be perceived as a distorted h. The consonant x appears in words xɒneʔæm (خانه‌ام) (my house), xændehɒjæm (خنده‌هایم) (my laughter), tælx (تلخ) (bitter), xoruʃ (خروش) (howl in this context), xæste (خسته) (tired), and xune (خون) (blood) that are the most emotionally intense words of this poem. Also, consonant ʔ appears in xɒneʔæm (خانه‌ام) (my house) and ʔɒtæʃ (آتش) (fire) are the central theme of the poem. Therefore, considering their voiced phonetical characteristic (carrying much air), they can be pronounced for a long time; I decided them to be sung with a vocal fry to emphasize their harsh timbral and semantic quality.

The next level of phonetics were the fricatives ʃ and s that respectively also represent essential words of the poem: ʔɒtæʃ (آتش) (fire), gereftæst (گرفته‌ست) (is on), dʒɒnsuz (جانسوز) (soul-burning), misuzæd (می‌سوزد) (is burning) – all illustrating fire and burning. Therefore, I decided to stretch their pronunciation to the maximum length possible for the vocalist in one breath.

In addition to the phonetic timbres, I considered two other voice factors in this composition. One factor was that the pitch must follow the vocalist's unique registers to transmit the piece to various vocalists. The second factor was about the flexibility of the score to control rhythmic quality without interrupting the focus on the breath durations. Therefore, I created a notation system in that the staves showed voice registers instead of specific pitches, and the rhythmic gestures followed various categories of brackets, dots, and horizontal lines instead of conventional rhythmic notation. The following shows some of my instructions for the voice:

- Syllables next to each other are pronounced as fast as possible.
- Syllables in between brackets are pronounced a bit longer than the syllables without brackets.
- Syllables in between brackets followed by three dots are extremely longer than the rest of the syllables. They should take the most length of the phrase.
- The space between lines indicates vocal registers as follows, respectively, from bottom to top: very low, low, mid, and high-mid. Consequently, the note-heads on the lines indicate the register between the main registers, and the note-heads outside of the staves indicate extreme registers requiring more physical energy.
- The thick horizontal line following note-heads shows how long the pitch sustains.

Due to the timbral focus of the piece and its flexibility in adapting to any voice range, the instrumental parts must also follow similar timbral flexibility. The instrumental parts follow a similar staff structure in which the instrumentalists choose pitches according to their timbral register, instructed relatively to what the vocalist sings. The image below (Figure 13) and its following text show the instruction section for the notation staves:

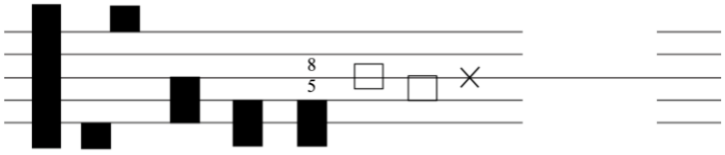

Figure 13 Instruction for staves, *Faryad* score

Black noteheads from left to right: free pitch (all ranges), extreme low range/pedal tone, piercing extreme high range, mid-low to lowest possible range (in the comfort zone), very-low to extreme low range (comfort to discomfort), same range with humming a fifth or an octave above the pitch (a multiphonic effect).

- Empty square noteheads: (mostly) airy qualities and instructed in the score X notehead: (mostly) non-pitched air-tones, instructed in the score
- Single line staff: non-pitched sound

The next item I wanted to control in the voice was to sing while inhaling and exhaling. In fact, most of the expressions in the voice come from just the breath itself, as it sometimes adds restrictions to the vocalist's body and exhausts the performer. So, when the performer physically experiences pressure and survival resistance; consequently, they sing in a more intense emotional state, which will resonate in their voice. Figure 14 below shows an example of notation from the opening part of the piece. The upward arrows show exhaling, and the downward arrows show inhaling.[9]

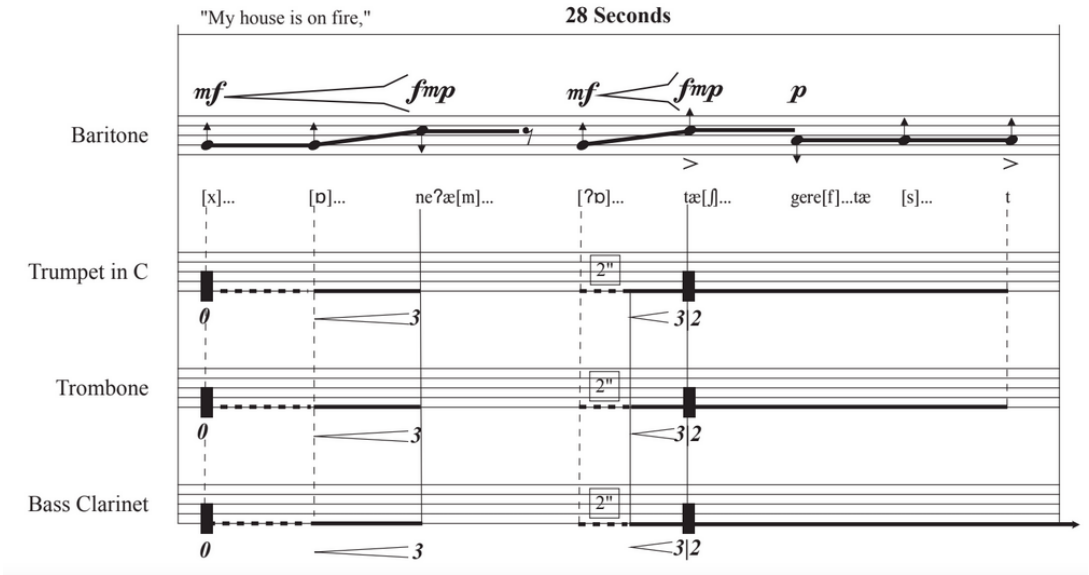

Figure 14 The opening part of the score of Faryad

Since delivering the poem's core emotions was necessary to me, I made formal decisions to reconstruct the poem. According to what I previously stated about the phonetic aspect of the poem, some verses had more phonetic strength in carrying the meanings, which, on the other hand, left other parts out of musical balance. The first, middle section, "pærdehɒ vo færʃhɒ rɒ, tɒreʃɒn bɒ pud" (پرده‌ها و فرش‌ها را، تارشان با

[9] The common form of showing inhale and exhale is in the opposite directions, upward for inhale and downward for exhale. However, I believe arrows according to the air flow directions in the body are more accurate: the air flows upward through an exhale and downward through an inhale.

پود), had an excellent brightness and colorful potential due to fricatives and plosives, however, I needed to make a rhythmic adjustment to bring them to the front. So, this section became a repetitive bar that the vocalist would improvise on phonetics (Figure 16). On the other hand, I removed phonetics from the section, "væz mijɒne xændehɒjæm tælx, væ xoruʃe gerjeʔæm, nɒʃɒd, ʔæz dærune xæsteje suzɒn" (وز میان خنده‌هایم تلخ، و خروش گریه‌ام، ناشاد، از درون خسته‌ی سوزان), and instead, used its rhythmic characters to provide an improvisatory instrumental section (Figure 17) that rises to the climatic chaos moment of "mikonæm færjɒd, ʔej færjɒd! ʔej færjɒd!" (می‌کنم فریاد، ای فریاد! ای فریاد!) – also referring to the title of the work, *Faryad* (færjɒd) (Figure 18). And, the last section, "næqʃhɒʔi rɒ ke mæn bæstæm be xune del, bær særo tʃæʃme dæro divɒr, dær ʃæbe rosvɒje bisɒhel" (نقش‌هایی را که من بستم به خون دل، بر سر و چشم در و دیوار، در شب رسوای بی‌ساحل), required some extra decisions to turn into an effective ending – while it was not an original ending of the poem.

- Influence of Radif

The phonetic rhythm of this section led me to write a melody inspired by Radif. In this melody, I expanded the potentials of Iranian classical music in notation – by creating a more precise and transparent notation system and intervals – by incorporating microtonal modulation that does not happen in conventional Iranian classical music (Figure 19). Although writing a melodic ending seemed risky to me at first, it turned out to be a balancing contrast to the rest of the more noise-focused piece. Finally, the last section needed another decision to make a stronger ending statement, and that was death, which does not happen in the poem. In the poem, the person (or the poet) has been calling for help for a long time, and since no help arrives,

I made the tragic decision to let the main character die at the end (Figure 15). Because of this decision, I needed to ensure that the last syllable would end on the lowest possible tone available for the vocalist so that it would sit right on the border between the lowest-pitched voice and absolute voiceless. For the Loadbang's vocalist of the time, Jeffrey Gavett, the low E was the pitch, and after that, there was no voice possible. So, I reverse-engineered the melody based on that note. Similarly, future vocalists performing this piece will need to transpose the melody according to their voice range.

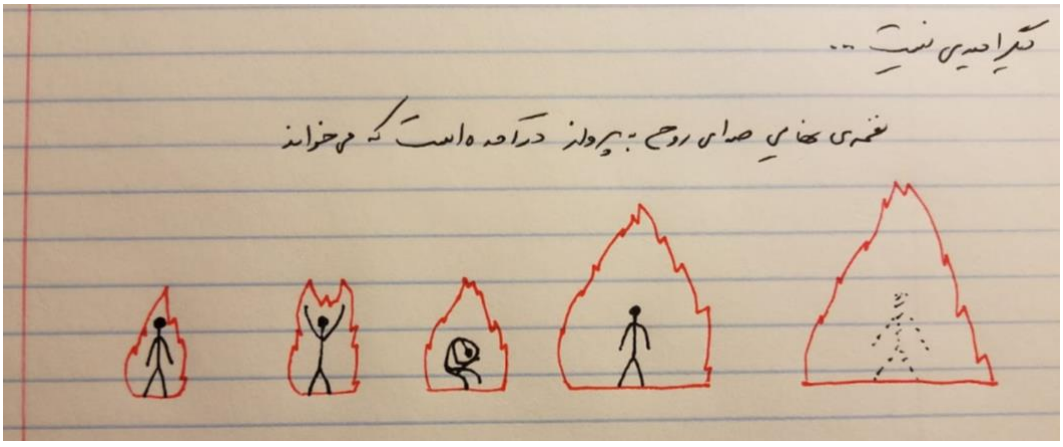

Figure 15 Hand sketch for the formal structure of the piece

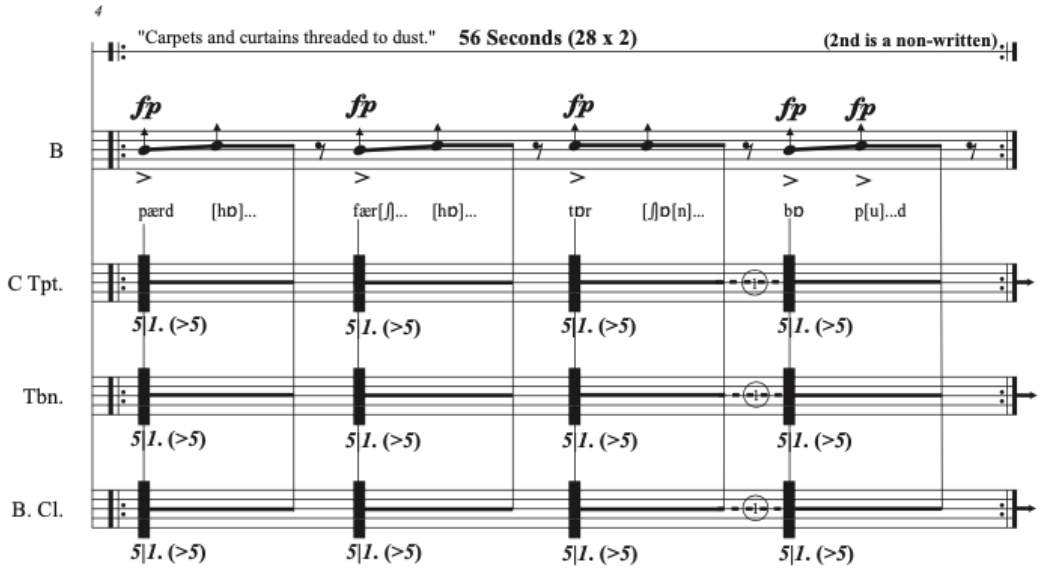

Figure 16 Repeated fricative section

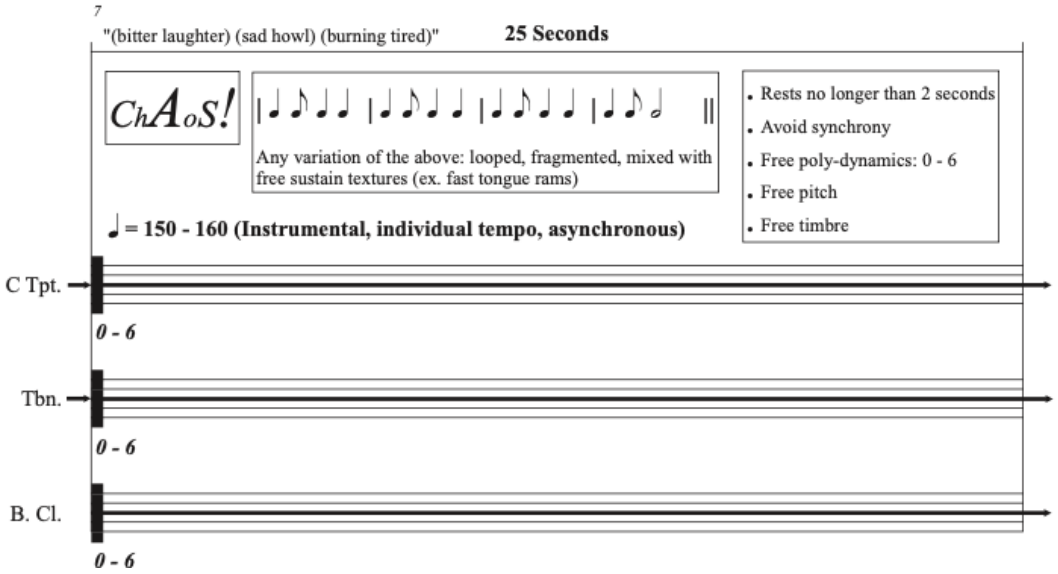

Figure 17 Instrumental climactic section

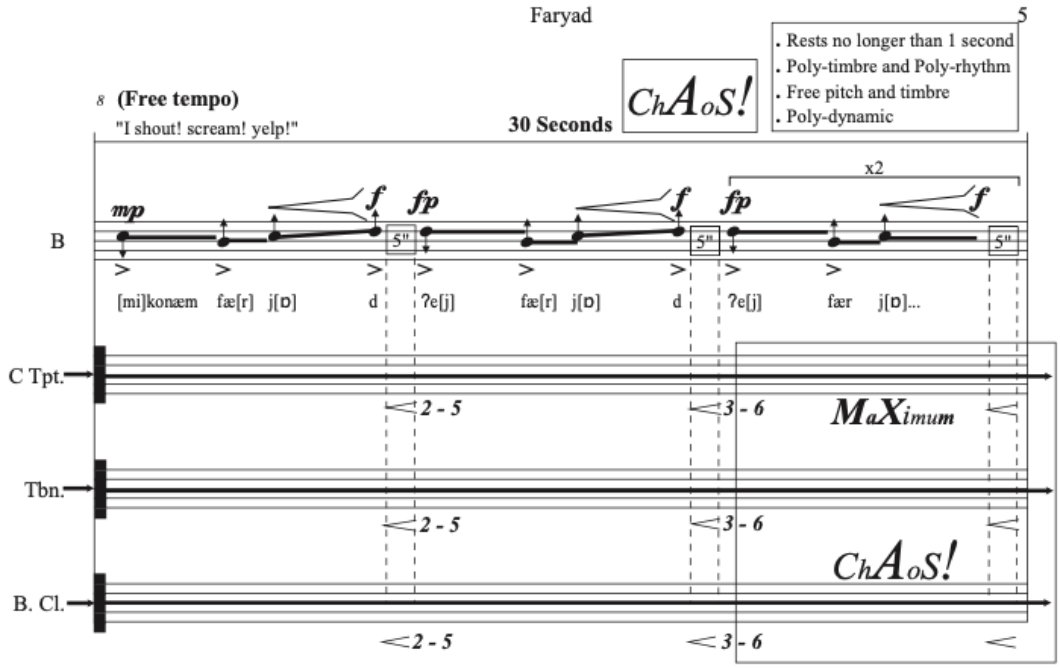

Figure 18 The beginning of Chaos, emphasizing on Faryad

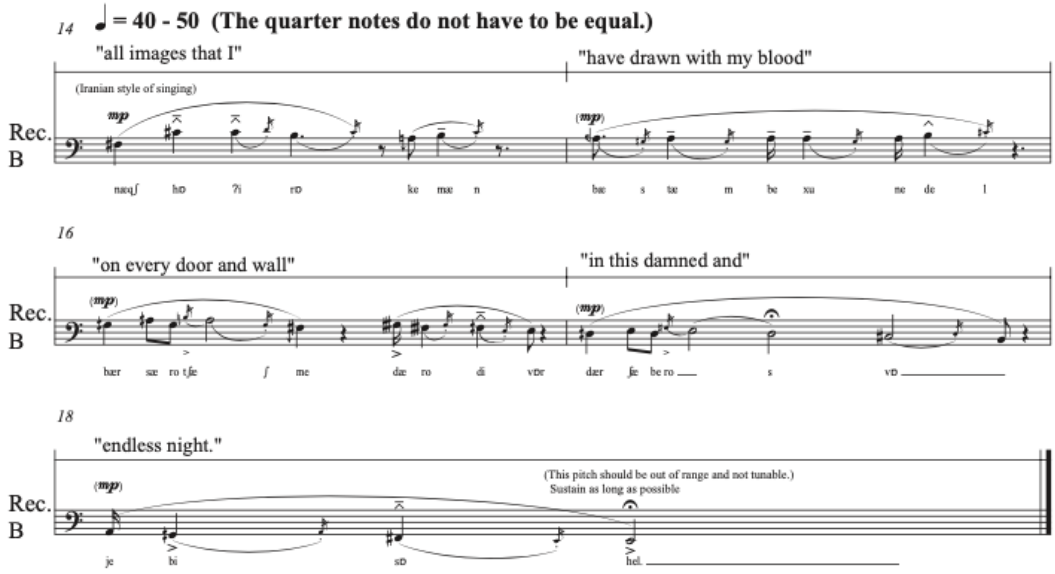

Figure 19 Iranian classical music inspired melody at the end

Composing the ending section was particularly challenging because I needed to figure out an organic visual approach to show the vocalist's death without disrupting the visual flow of the performance, which led us to the discussion about choreography and auditory illusion in this piece.

- Choreography

Visualities of the performance, such as performers' bodies, stage settings, light, and other elements, can shape how we perceive music. During my second jury composition, I tried to remove any visual components about performers by hiding them under black fabrics and turning off the light; however, the result turned out the opposite, as my audience mentioned experiencing a new unconventional visual space. So, I studied the influence of performance's visual elements on the auditory perception of the piece, and it showed me that a music performance is always an audiovisual experience – even in the most conventional setting. Since then, considering visual details has become essential to my composition.

Due to the importance of visual experience, showing death at the end of *Faryad* was a sensitive decision, shaping the narrative and audio experience of my piece. I wanted to use the visualities to create a sound-source auditory illusion without adding any extra visual component to the performance, such as using light, smoke, or asking the performer to walk off the stage. I also designed the stage setting of this piece in a way that the instruments would metaphorically represent fire surrounding the vocalist – which was a different setup than the ensemble's default, having the vocalist on the left side. In other words, the vocalist bending toward the left would result in him burning in the fire. Thus, to strengthen the surprising illusory effect, the death visualities had to stay within the existing visual framework of the performance: the vocalist's physical expression. So, the piece ends with the vocalist being choreographed a gradual death, while his voice singing the ending melody comes out of the speakers:

> **Vocalist:** Starting from bar 14 to the end, the mouth should be kept about one cm open; Eyes and rest the body not move; Faced toward the audience. Starting from bar 15, the head starts to fall toward the right side, very, very slowly, and not noticeable. The face should be kept static, as well as the eyes (but blinking normally). The bending motion will follow the spin toward the waist. The entire movement should be extremely slow to take until the end of the recorded voice to finish. The arms are loose and dead, hanging (not swinging) from the shoulders so that gravity would move them. The feet and legs will remain steady. Once finished, the vocalist needs to stay steady until the instrumentalists close the performance.

Therefore, the last section of the piece must have been a pre-recorded track. However, to make this scene more illusory and effective – so that the audience would get confused recognizing the sound source as the vocalist is dying, I needed to maximize the acoustic qualities of the playback identical to the live performance, which means keeping the microphone and space the same. Therefore, the playback track

must have been recorded separately for each concert hall during the dress rehearsal, using the same microphone used for the performance. Also, the vocalist needed to use a headset microphone so his physical movement would not impact the distance of his mouth to the microphone. Furthermore, the vocalist must have been amplified throughout the piece, forcing the instruments to be amplified, blending the sound sources from the speakers. Accordingly, in this piece, I am using amplification solely to shape the space, unifying the sound source locations.

- Dynamics

Since the vocalist is the leading part of *Faryad*, the instrumentalists also need to decide the dynamics according to the vocalist's voice level. The flexible performative mold of the piece required the score to offer a system that can provide this flexibility while being cohesive enough for the performers. Also, because the instruments were amplified, the dynamics must have been based on the speakers' output. Even though I used the conventional dynamic notation system for the vocalist, it was not accurate enough for the varieties I needed for the instrumentalists. Therefore, I used numbers to illustrate the instruments' dynamics and instruct them accurately while keeping them relative to the voice (Figure 20). Furthermore, considering the amplified nature of the performance, there are moments to adjust the amplification input level for the voice (Figure 21) or to control the distance from the microphone by asking instrumentalists to step away from their microphones, shown as a.**M**ic (Figure 22).

Dynamics numbers: These numbers are based on the amplified instruments' outputs and relative to the voice sound levels at the moment.	
0	No sound
0.5	Hidden
1	Almost hidden
2	Very subtle
3	Soft
4	Lower than voice
<5	Any dynamic not covering the voice
5	Same level with voice
Occ. >5	Occasionally covering the voice
6	Covering the voice
7	Rock concert loud
3|2	3 then suddenly 2
5|1. (>5)	5, then suddenly 1, then dynamics >5
2 & Occ>5	Combination of 2 and occasionally covering the voice
0 - 6	Any dynamic chosen from the given range. Dynamics can be fluctuating.

Figure 20 Dynamic instructions for the instrumentalists

Mic up	Turn the voice's amplification level slightly, maximum of 2 levels.
Mic still up	Do not change the adjusted voice's amplification.
Mic back	Return the voice level to the initial amplification level setting.

Figure 21 Adjusting amplification level instructions for the voice

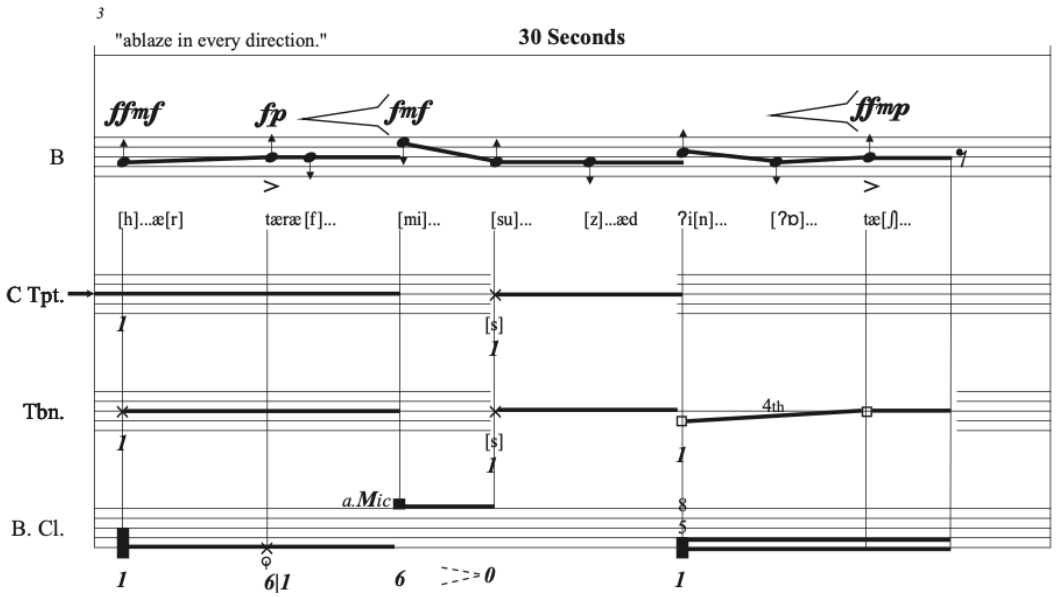

Figure 22 Example of a.Mic for the bass clarinet player to step away from the microphone

- Score in Two Versions

The duality of the precisely controlled vocal part and semi-interpretive instrumental space of the piece challenged me to find the proper notation system, which led me to explore new modalities for score writing. My musical goals for each moment were crystal clear. However, that clarity also demands a flexible harmonic situation that can respond to performers' momentarily moods in time, self-reflection, and various acoustics. Therefore, it required freedom within the frame of each moment of the piece. The main challenge was adapting a practical and unifying system that could respond to the piece's needs at every moment.

In contrast, these moments are so different; sometimes, they change and grow within themselves. For example, Figure 17, Figure 18, and Figure 19 present some of the contrasting musical spaces of the piece. The Chaos section needed two parts. While the first section overlaps with ongoing musical material from the previous section, the

second section provides instructions on how to grow the musical components to the pivotal moment of the piece. So, Chaos was a complex section requiring various notation methods.

On the other hand, the Radif-inspired ending shown in Figure 19 needed a semi-conventional notation method while providing guided-improvisatory space for the instrumentalists and choreographic space for the vocalist. Additionally, considering the complexities of notating other parameters such as dynamics and timbres, I had no choice other than to combine the graphic and text scores simultaneously. Therefore, the performers receive two scores for this piece: the rehearsal score includes a paragraph of text instructions in each block of the piece followed by the graphic version of the same block, and the other is the performance version, which is only the graphic score.

Music scoring is one of the most critical parts of the composition. Without finding the proper scoring system, music composition can suffer significantly and lose its organic and growing route. On the other hand, accepting the challenge and pushing toward the proper notation system for the piece is one of the most fruitful practices for any composer. I have witnessed many composers repeating the same composition style for years, not dealing with new music notation challenges. I can argue that score writing for *Faryad* has been the most challenging and fruitful, expanding my composition horizons.

Chapter 4: Shabah (Ghost) Solo (2021-2022) and Duo (2022-2023)

In my long-term collaboration with my friend and colleague, David Aguila, I wrote two pieces for trumpet *Shabah*. The first piece was written for a solo microtonal double-bell trumpet between 2021 and 2022. In Fall 2019, David initiated the idea of wanting me to write a solo trumpet piece for him. However, it took about two years for me to develop and settle on a solid idea for the piece. In fact, the process of composing this piece started even before the writing of *Paper Pigeons*. During the research process of developing the main idea, I experimented with different approaches to the auditory illusion. Inspired by Janet Cardiff's *The Killing Machine,* my first plan was to explore the possibility of creating a music performance for a solo audience, a space between music performance and installation. Since it was initially imagined to be premiered at UCSD, my imagination of the performance space was based on the UCSD Conrad Preby Department of Music building using all three floors. In this idea, I explored the possibility of having the performer, David, hidden in one of the rooms. However, they can experience a one-to-one music performance once the audience finds him. This idea would have required hours of non-stop live music to provide enough chance for most of the audience to engage one-on-one with the performer. Nevertheless, I cannot install a performer, specifically a brass player, for a long time. On the other hand, I did not want to use any playback or long rests in this piece. So, considering the performer's physical limitations, this idea for a solo trumpet was impractical.

- Space

However, this curiosity led me to more fundamental "why" questions: Why should I hide my performer? Why do I want to avoid using electronics in this piece? Why do I want to create a one-on-one situation? What is the core message I am going to share with my audience? I realized my subconscious was looking for a closer distance and connection to my audience to share a story about an intimate conversation: a dialogue I was feeling with my brother's ghost. So, the performer becomes a hidden ghost of a loved one.

Moreover, I needed to remove layers and borders between my performer and the audience as much as possible to strengthen this feeling. However, how can I turn my performer into a ghost while he is next to my audience? The audience needs to be able to see and hear the performer, at the same time not seeing him – or probably at least not as a performer. Accordingly, the space became essential. Composing the piece would have been drastically different if written for a three-floor building, a gallery space, a 500-seat flat concert hall, etc. Thus, the piece was site-specific to the shape of the space, and it was necessary to learn where exactly the piece would be performed. Finding the answer to this question took a few months to end up in the University of Northern Texas recital hall. The recital hall was a medium-small hall with steep seating, all facing front down to the stage. Therefore, I spent a month studying the recital hall, using the UCSD recital hall because of its similarities to the UNT recital hall.

The core idea of "how to hide my performer" had to be figured out within the shape of the recital hall. Traditionally, composers have hidden the performers by locating them off-stage or using playback tracks. I had also covered my performers

under black sheets in my piece, *Line* (2019), to remove their physical visuality, which oppositely resulted in increasing visual attention and curiosity toward my performers. Thus, I needed to explore different possibilities. One unconventional way to hide my performer could be by creating a situation for the audience to not look at the performer. The most controlling way to do this was by asking the audience to wear eye bands or close their eyes, which was impractical due to safety issues and lack of control over the audience's will. However, it would indirectly emphasize the importance of the visual elements of the piece and make the audience even more curious to look for the visual component. Any unconventional situation needed to look conventional to avoid adding extra curiosity. Accordingly, since the audience would be sitting on the steep seats facing toward the stage, relocating the performer of that perspective while situating the audience to keep looking forward would be a solution. Therefore, I decided to place a chair and music stand on the stage to keep the audience looking at the stage while the performer sat among them. Since it would be physically demanding for the audience to keep their head turned to be able to see the performer, most of them would remain looking at the stage. Additionally, I added darkness for the hall to reduce the visual energy even further, except for a spotlight on the chair and a music stand on the stage. I also asked the performer to wear black costumes, including a head-covering mask and gloves.

- Light

Since the performer will carry the trumpet, the piece must be programmed at the very beginning or after an intermission to keep the trumpet outside the audience's vision. Also, for the performer to blend with the rest of the audience, he would not

wear the mask and gloves until the dedicated time of the performance begins. The hall goes pitch-black at the beginning of the performance to give the performer enough time and space to wear the mask and gloves. In addition, during this pitch-black time, the performer must have enough time to wear the mute belt silently, hold the instrument, and stand up slowly to avoid seat noise. These motions must be as subtle as possible to minimize the chance of kinetic distractions for the audience seated around him, which also requires the performer to memorize the piece. In our sketch rehearsals, we measured this length to equal the light person singing the happy birthday song three times, so the piece would not need extra tech for this management. The light person turns on the spotlight on the stage after singing Happy Birthday three times. Once the performer sees the spotlight, he should take a brief time to notice the focus among the audience before start playing the piece. When the piece ends, similar to the beginning, the hall goes to pitch black for the length of three times singing the Happy Birthday song. [10] This song method gives the performer enough time to sit silently, put down the instrument, and remove the mask and gloves. So, when the light returns to normal, the performer looks no different from a regular audience; in other words, the performer disappears like a ghost.

- Choreography and Double-bell-ness

The reason the performer needs to stand up leads us to the choreography and why it sonically matters in this piece. My initial idea was that the performer would sit

[10] This was a joyful part of this collaboration. My initial idea was to use a timer for the person running the lights, and I was not expecting such a solution for this timing. David suggested using the Happy Birthday song because everyone is familiar with its pace, and it can provide relatively accurate timing for the performance without using any extra technology.

throughout the performance to minimize the visual distractions, specifically since the piece starts subtly with air-tones and tongue-rams. However, there had to be enough safe distance and direction from nearby listeners' ears for louder parts of the piece, such as the Extreme Noise[11], and due to the seats being steep, the performer had to play standing. Furthermore, this physical change in the middle of the piece would have made much more visual distractions and difficulty for the performer – holding the seat and instrument while standing up. Therefore, the best solution was for the performer to stand up at the beginning and sit back at the end of the piece.

On the other hand, standing could provide us with more physical possibilities that would be impossible while sitting. Having the double-bell trumpet enabled us to situate the bells at almost a 180-degree angle; the lower bell remains at the front, while the upper bell can turn backward over the shoulder of the performer. Therefore, by rotating the performer's upper body toward left and right, the bells would project the sound in two different directions, filling the space more with sound. According to David Aguila, the 180-degree bell coordination was a new exploration of the double-bell that he had "not seen a piece that explores it in this way at all" (Aguila, on Shabah 2024).

[11] This is a technique developed by David Aguila as he writes in his dissertation: "One technique I developed is called extreme noise, and sounds like a loud screeching. This technique is performed with the lips pursed into the mouthpiece, with air from the aural cavity activating the lips. There is extreme back pressure created when doing this, which is helpful to circular breathe when playing" (Aguila, ghost tones Concepts and Concert 2024).

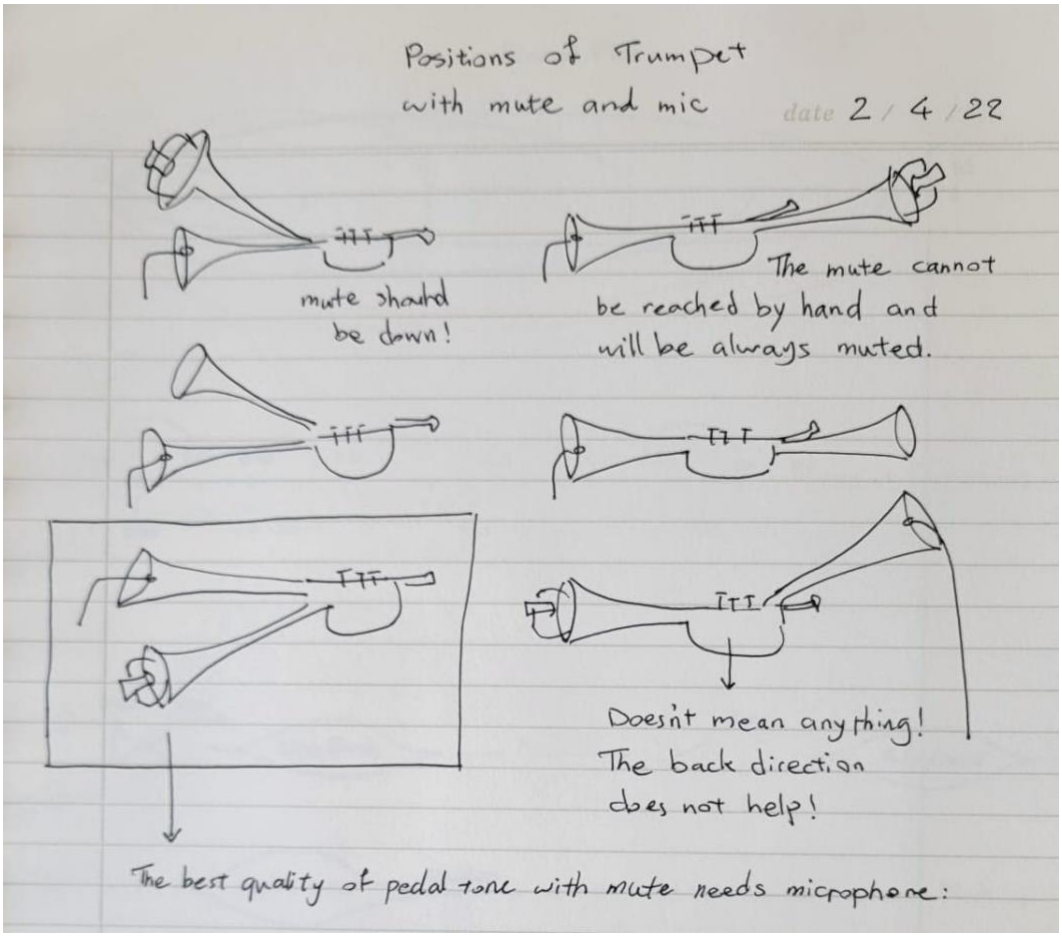

Figure 23 Sketches for bell coordination

When writing this piece, I needed to write something specified to the double bell while challenging myself in composition and David's performative skills. Therefore, I studied David's techniques, sound palette, and the existing repertoire written for the double-bell. I noticed that the added bell had been primarily used at a 30-degree angle and for a microphone or a mute without the need to be removed. Instead, I needed to explore more capacities within the double bell. Just by turning the upper bell toward the back, I had a 180-degree combination of bells to direct the sound. Figure 23 shows my sketches on finding the best bell coordination with Harmon mute and clipped microphone. When drawing these positions, I had the idea of having live electronics for the piece; however, I ended up with the position on the

bottom right, excluding the microphone. As the piece developed, the need for electronics became less and less. I noticed that any other than 180-degree bell coordination would not satisfy the double-bell spatial capacities. I also discovered I could mix both bells by holding the bell switch key halfway, sending half of the air into each. Since the trumpet has a directional sound, each bell sends it directly toward the surface it faces. Therefore, by twisting the performer's body and the bell arrangement, I could specialize sound in two dimensions. So I could use the double-bell quality of the instrument to its fullest.

On the other hand, I did not want to overuse the bodily motions to avoid any extra visual component. Thus, I needed to limit it to the essential moment. The bodily motion had to be a result of a sonic requirement. In studying David's musical palette, I chose air-tones, tongue-rams, pedal tones, Extreme Noise, Electronic Birds[12], and split tones as my primary sonic materials. In this combination, most sounds are soft tones except for the Extreme Noise. Therefore, the bell transitions and turning directions would add more drama to Extreme Noise and fill more space. On the other hand, spreading the Extreme Noise sound throughout the hall also decreases the risk of damaging listeners' ears.

According to all the abovementioned, the audience is waiting for the soloist to come to the stage, as they conventionally expect to hear the sound coming from the

[12] In describing Electronic Birds, Aguila writes: "This technique is created when high tension of the lips in producing is assisted by the backpressure created with the instrument and the throat of the performer. "Electronic Birds" is executed with a tight embouchure, small aperture and a small amount of moisture on the teardrop of the lips. There is usually a steady pitch center with chaotic instances interjecting or adding to what is heard. When achieving the technique, it can sound like seagulls. The density of chaotic interactions is controlled by the amount of air, tension of the aperture, amount of saliva, and backpressure. This offers a single electronic bird, a small flock, and large flock density of sound and interaction" (Aguila, ghost tones Concepts and Concert 2024, 32).

stage. However, *Shabah* starts next to their ears. The audience would not expect the soloist to be among the seats. Breaking this expectation creates an auditory surprise that heightens their listening experience.

The other element of breaking expectations is the musical language of this piece. *Shabah* starts with a theme of air-tones and tongue-rams, creating a speech-like sonic atmosphere. It resembles the ghost of a loved one sitting among us and talking to us. The close distance to the sound makes this dialogue-like space even more intimate but uncomfortable. As a composer, I constantly challenge my listeners by creating a relatively uncomfortable space. Active and engaged listening requires slight discomfort to activate the sensory alarms. For example, according to my dialogues with Dr. Pinar Yoldas, darkness heightens the defense system in the body, which can result in more careful auditory and visual senses.

University of Edinburgh Lecturer in Human Geography Nina Morris explains that darkness "challeng[es] one's human sense of bodily presence and boundary," heightening the sensory experience. She adds that "highly visual animals, humans are greatly disadvantaged when the lights go out, for the human eye has reduced visual acuity in conditions of lower illumination. […] There is no such thing as total darkness at night (or total lightness in the day). True darkness is a rare occurrence" (Morris 2011). Therefore, having a combination of pitch-black darkness can intensify the audience's listening experience.

In this piece, I am using these heightened sensory experiences to lead my audience through the narrative form of the piece. In order to keep these senses heightened, it is necessary to keep the sensory stages of the piece balanced. The piece

must start with a subtle entrance to keep the performer's presence as subtle and intimate as possible. Also, in my research about the sound palette of the piece, I noticed the potential of Electronic Birds that would require a long section to develop, which is about four minutes of the piece dedicated to Electronic Birds. However, these sounds needed much sensory preparation to enable the audience to pay attention to all of those micro changes in the sound. Therefore, it would have been wasted if it came at the piece's beginning. On the contrary, bringing Electronic Birds after a huge dynamic contrast with the Extreme Noise was an excellent sensory preparation. In other words, one could argue that the central part of the piece is the Electronic Birds – which also is the most crafted one like a Persian miniature: four minutes of music playing with all the most delicate sonic characters of the piece – and the rest of the piece is simply a preparation for that.

- Pushing the Contemporary Trumpet Boundaries

This piece pushes the boundaries of contemporary trumpet techniques. Extreme Noise and Electronic Birds are relatively new techniques in contemporary trumpet performance – as Extreme Noise was developed by David Aguila, and many trumpeters must learn these techniques prior to performing *Shabah*. Thus, by exploring new possibilities within these techniques, *Shabah* pushes the boundaries of contemporary trumpet literature. Extreme Noise results from an embouchure with the top lip over the bottom lip and completely inside the mouthpiece, a balance of backpressure between the oral cavity and the horn, and a very fast and buzzing top lip. The dynamic control for Extreme Noise is only through a half-valve combination (Aguila, collaboration on Shabah 2019-2022). Extreme Noise, as it is named accurately,

is a deafening sound with a dynamic range of *mf* and higher, and it transforms into air-tones that are softer than *mf*. It also requires considerable breath, and performing it consistently without giving enough physical rest can cause dizziness for the performer. However, using circular breathing can help to lengthen its duration for approximately 90 seconds without overly exhausting the performer. This thick layer of noise does not have an audible pitch characteristic, but its spectral and timbral quality can be filtered through valve manipulations.

On the contrary, Electronic Birds is a super subtle sonic character between *ppp* to *mp*, resulting from a balance of back pressure buzz, air, and a small amount of spit (Aguila, collaboration on Shabah 2019-2022). Additionally, circular breathing can make Electronic Birds continue for as long as needed due to its subtlety without exhausting the performer. The density of the Electronic Birds is controllable by air and lips; the maximum density is on the border of becoming a pitched tone, while the minimum density is on the border of becoming an air-tone. This noise-based sound has a pitch-center quality, and the density and dynamic can be transformed by changing the pressure of air and lips. Increasing pressure can bring more pitch quality, and extra pressure can completely turn the sound into the conventional pitched trumpet tone.

Accordingly, Extreme Noise could be softened gradually to turn into an air-tone, and then the air-tone could grow into Electronic Birds. By using the transformation, Extreme Noise could function as a dramatic transition from the piece's first section into the Electronic Birds. Also, this would provide a balanced mixture of sonic energy and practicality when bringing Extreme Noise for a relatively

short time while dramatically preparing the audience for the subtle tones of Electronic Birds transforming into various densities for about four minutes of the piece. Considering the length of the piece, as ten minutes, a four-minute section is a significant portion, nearly half the length of the piece, emphasizing the Electronic Birds. Furthermore, as a part of Electronic Birds, pitched Ghost-Notes can result from moments of higher air pressure accidents. In collaboration with David Aguila, I discovered these Ghost Notes can be controlled relatively rhythmically. Therefore, by controlling the air pressure within the Electronic Birds, I used the "accident" Ghost-Notes to gradually transition into the pitched tones, which eventually could turn into Split-Tones. Ghost Notes, at first appearance, sound like an error; however, by bringing them back and extending their duration, their controlled element becomes more evident to the listeners. This transformation from error to control also heightens the listeners' hearing.

- Footsteps of Radif

Despite the piece sounding noise-centric for the most part, there are pitch centers that shape and direct the piece's formal structure. These pitch centers are based on the C trumpet spectral qualities and what provides the resonance and volume I aim for. The piece starts by being centered around the C and D flat. Since air-tones and tongue-ram sound a semi-tone higher, written B3 and C4 would sound C and D flat. This intervallic behavior is similar to Radif's contour – the Avaz part – in that there are one or two pitch centers, as the rest of the melody circles closely (between a semi-tone to a whole-tone) around those centers for a long time (Figure 24).

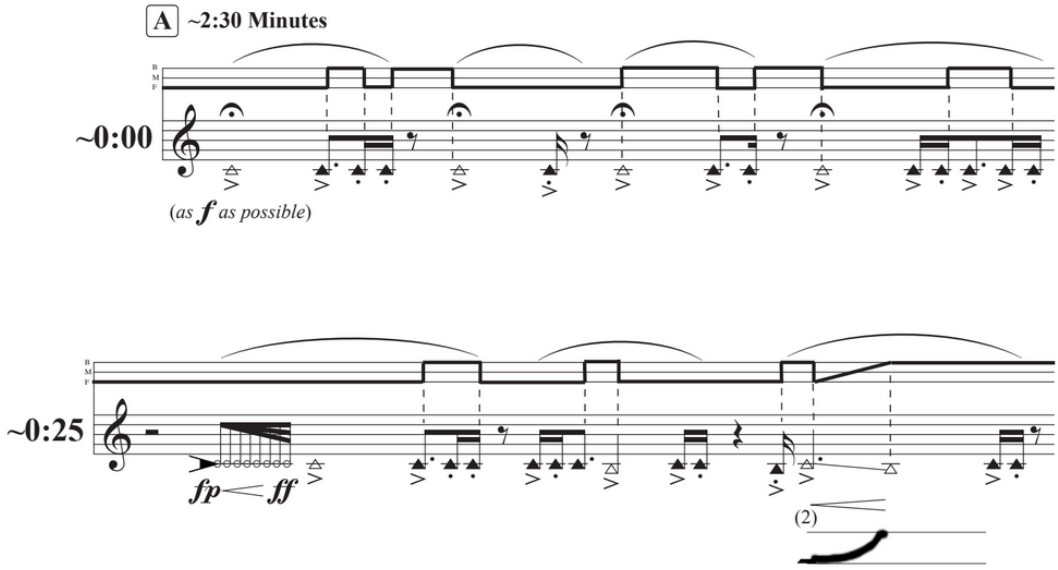

Figure 24 The beginning section of the piece

The first section bridges into the Extreme Noise (which, as a total noise, does not have any pitch center) to connect noise materials back to C but an octave higher (C5), where the Electronic Birds starts. The Ghost-Notes then connect the C5 to Split-Tones. Split-Tones gave me the potential to bring harmony to this piece, so I used them to bridge from C to F triple-pedal tone. The first and second split-tone are partials of low C fundament. The third split-tone is based on the partials from the low B, which has a semi-tone relationship with the C. So, the intervallic relationship is still based on semi-tones. The F sharp partial then connects to the F triple-pedal-tone, again a semi-tone lower, leading to the pitch centers E sounding air-tones and tongue-rams and F on the pedal tone (Figure 25). A similar intervallic approach to the first section returns at the last section; however, the triple-pedal tone breaks the melodic pattern apart and comes with an aggressive expression variation (Figure 26). Furthermore, since the ending of split tones gradually switches to the back bell, the front bell is free to insert a bubble Harmon mute for the pedal tone without disrupting the split tones.

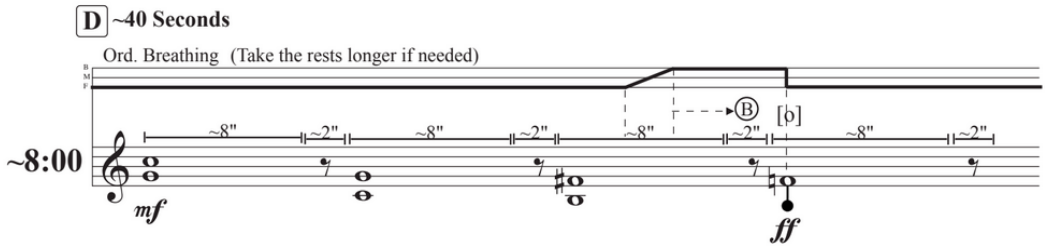

Figure 25 Split-tones connecting to the triple-pedal-tone in *Shabah*

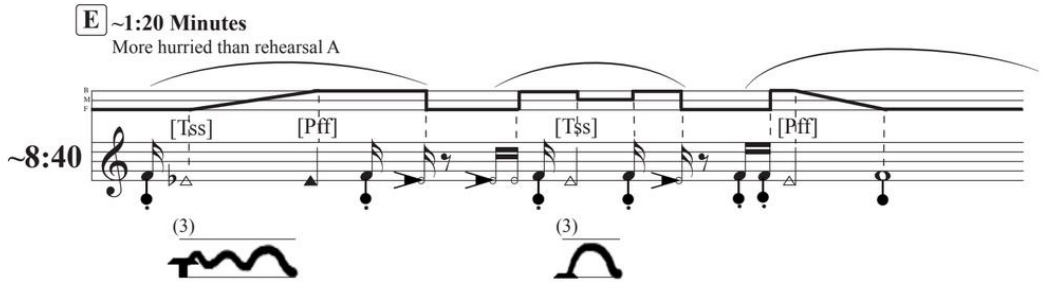

Figure 26 The beginning of the last section, *Shabah*

- Iranian Music Rhythms

The first and last sections of the piece are similar in the rhythmic and phrasing structure, following the Radif notation structure. All the eighth notes are as fast as possible, while the longer durations are freer and more relative to each phrase's length. For example, a whole note can become longer or shorter by each phrase. This rhythmic space gives the performer the freedom of interpretation, similar to what is required for performing Radif. This rhythmic pattern comes back as the bell-switching rhythm in Electronic Birds (Figure 27).

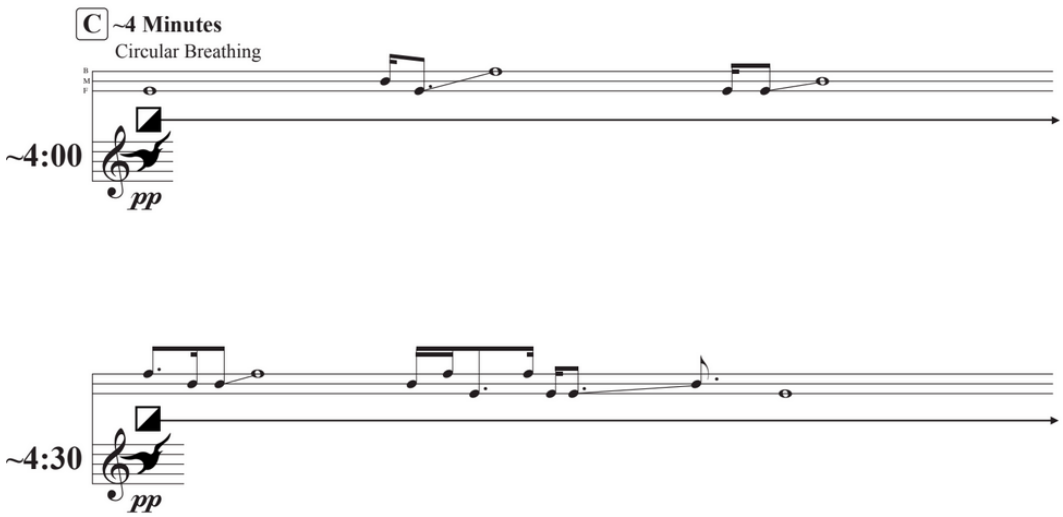

Figure 27 Example of rhythmic pattern from the first section in the bell switches

- *Shabah* (duo version) (2022-2023)

Since the solo double-bell premiere received noteworthy attention from many trumpeters willing to perform the piece, while there are only a few double-bell trumpets across the world, David asked me to write a duo version for *Shabah* (2022) that conventional C trumpets can perform. Writing the duo was one of my biggest challenges in composition as, with each piece, I always try to avoid repeating myself to the extremes of my ability. However, the result of this challenge was so satisfying and pushed the piece to reveal unexpected transformative potentials that would not have been discoverable otherwise.

Because of having two performers, this version expands the spatial and choreographic potentials, using the same musical material from the solo version with some adjustments (Figure 28). This version was written for the UCSD Department of Music Experimental Theater. Therefore, unlike the original version, the duo requires a flat black box with surrounding speakers and moveable seats.

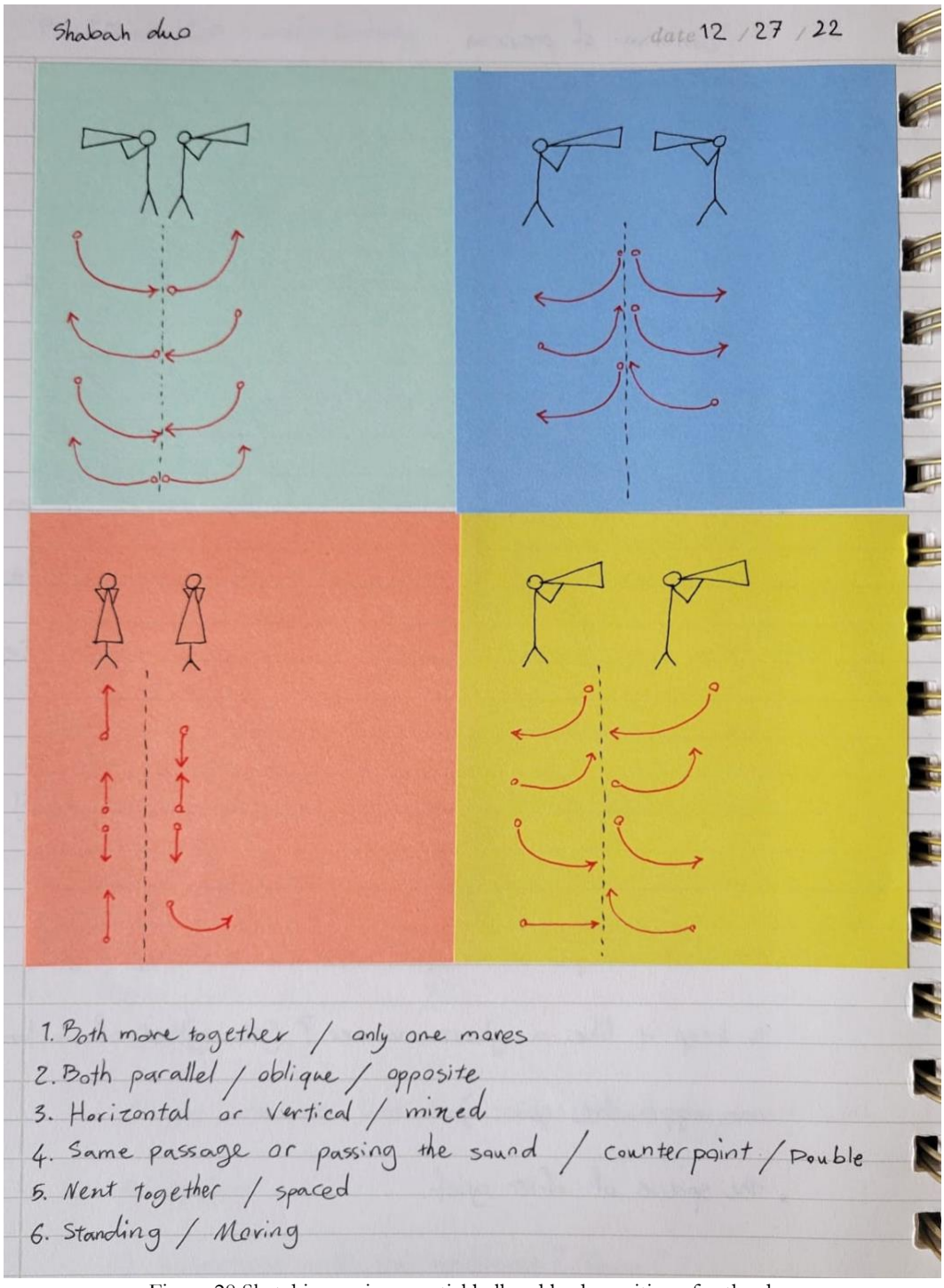

Figure 28 Sketching various spatial bell and body positions for the duo

- Precise Choreography To Control Specialization

I approached the duo like a broken double-bell trumpet floating into two bodies. So, instead of a 180-degree angle between the two bells (Figure 28), I have infinite possibilities in the space; each performer/bell can be at any location, having the performers walking, standing, bending, or moving in any direction. The distance between the two bells can increase to as large as the space. Accordingly, even though I was using the same musical material, I needed to take a completely different approach to using the space to make this version meaningful. Additionally, the musical structure needed to become something practical for two performers. The free and relative rhythmic notation would make rehearsals too tricky to achieve the gestures and bell-switching accuracies needed for the piece. Therefore, this version needed a mixture of conventional metric systems and free sections to fit the performers' needs (Figure 29).

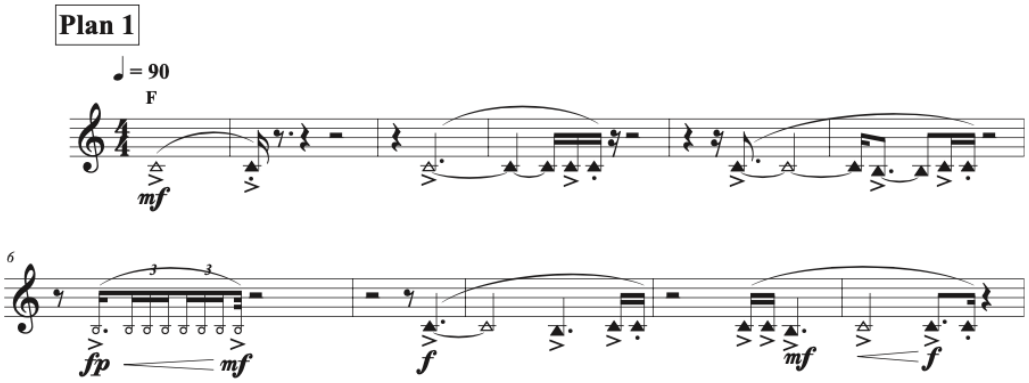

Figure 29 Beginning section of Shabah, the duo version

Figure 29 shows the beginning part of the score, with both trumpets playing in unison. Plan 1 in the rectangle, and the F below staves refer to the choreography instructions. Being site-specific to the Experimental Theater at UCSD Department of Music, I designed eighteen choreographic situations (plans) based on the hall. In order

to do this, I carefully studied the hall through in-person visits, taking photos and videos, and the printed copy of the hall's map. Figure 30 shows the choreography plans. These plans either show a standing position or a walking plan (shown with dotted lines). The trumpet players are shown in small circles with an arrow showing the trumpet bell's direction. If the performer is shown walking to another position, the circle without the number shows the former location, and the circle, including their number, shows their destination. Furthermore, the squares with arrows show audience seat groups and directions, each with about 24 chairs, and the horizontal line at the top shows a black curtain covering from the ceiling to the floor in front of the audience.

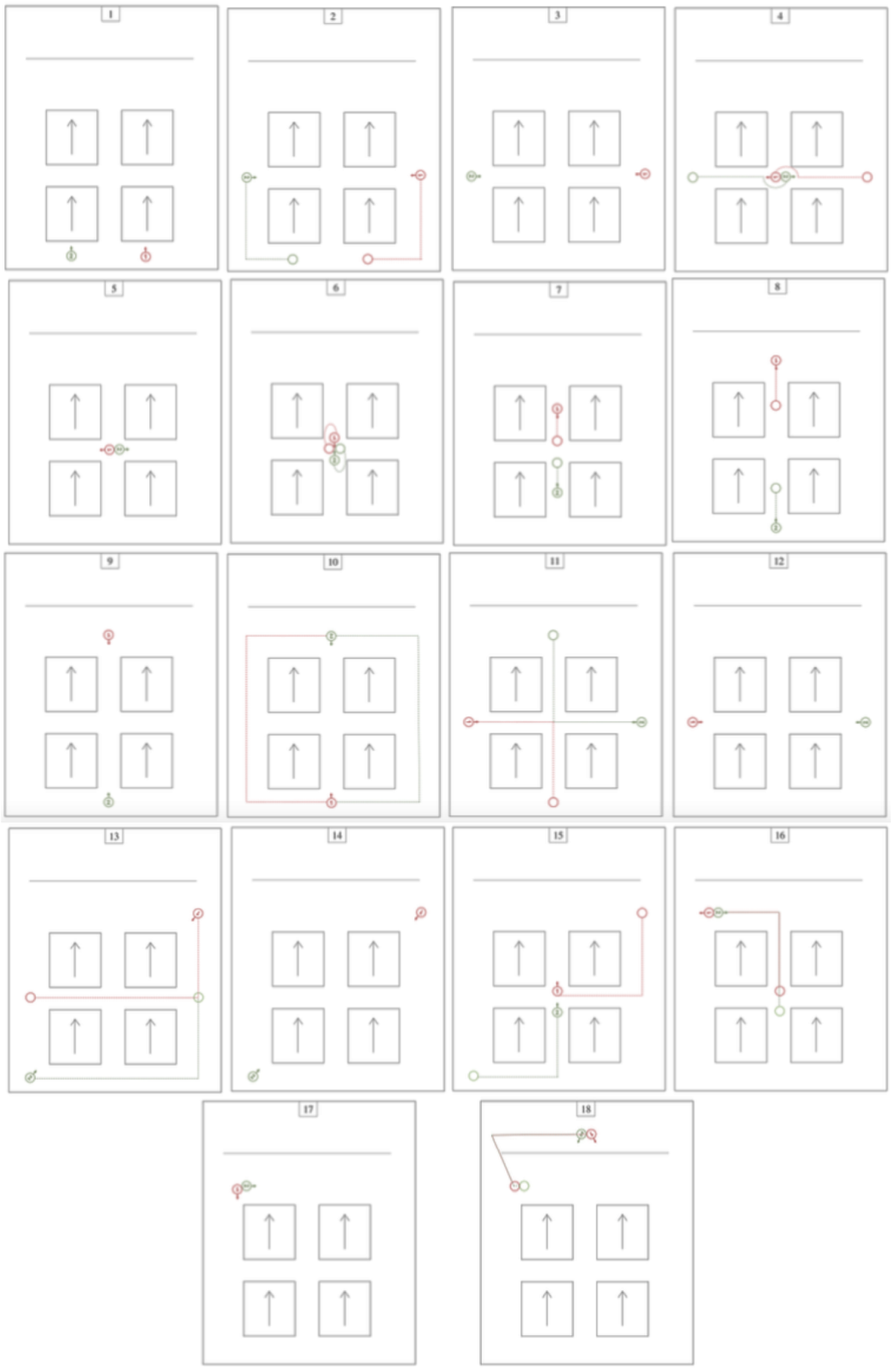

Figure 30 Shabah duo version, choreography plans 1 to 18

According to Figure 30, the trumpet players start standing behind the audience and gradually find their way among the audience to get behind the curtain where the piece ends. Since the trumpet's sound is directional, moving the performers among and around the audience would also create an effective spatialization effect.

Another layer to the choreography is body-twisting motion, which is not shown in the choreography plans. The bodily twists are shown with letters L, R, and F in the score, instructed as below:

L: Positioning the upper body to the left as wide as possible
R: Positioning the upper body to the right as wide as possible
F: Positioning the upper body to the front

Using these letters, I created a complete choreography that the performers could follow accurately and in detail. Figure 31 shows the transition to Plan 2, where, at the beginning, the player one would face to the front, while the second would face to the right. Then, the first player turns to their left, and the second returns to their front. Since I have shown the general standing direction in each plan, these bodily twists add extra possibilities to spatializing sounds.

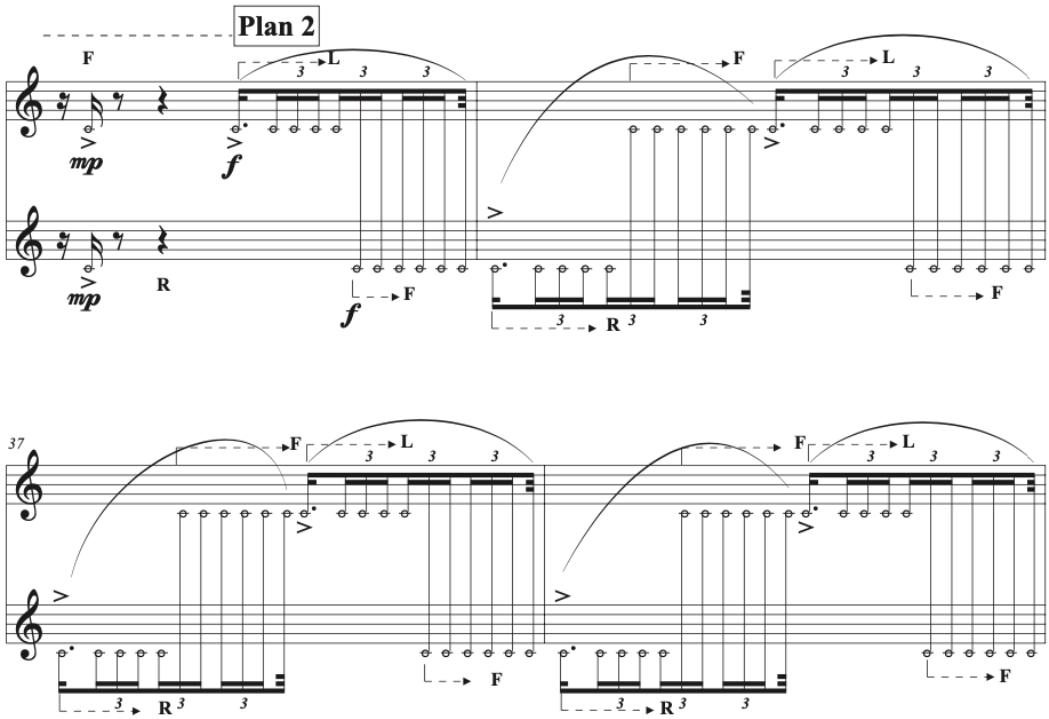

Figure 31 Example of bodily twist choreography, Shabah duo

- Reducing Visuality

Similar to the solo version, both trumpet players must wear black covering top to toe, with a head covering mask and gloves. Also, they must perform the piece from memory due to their movement. Accordingly, this version required a new visual decision to turn the performers into ghosts metaphorically and meaningfully. Because in this version, the performers move throughout the space, reducing visual distractions by using total darkness rather than staging with the spotlight on two chairs and two music stands for the imaginary sitting duet is more effective. In other words, the performers' movements would be less visible in a pitch-black situation than having a spotlight at the front.

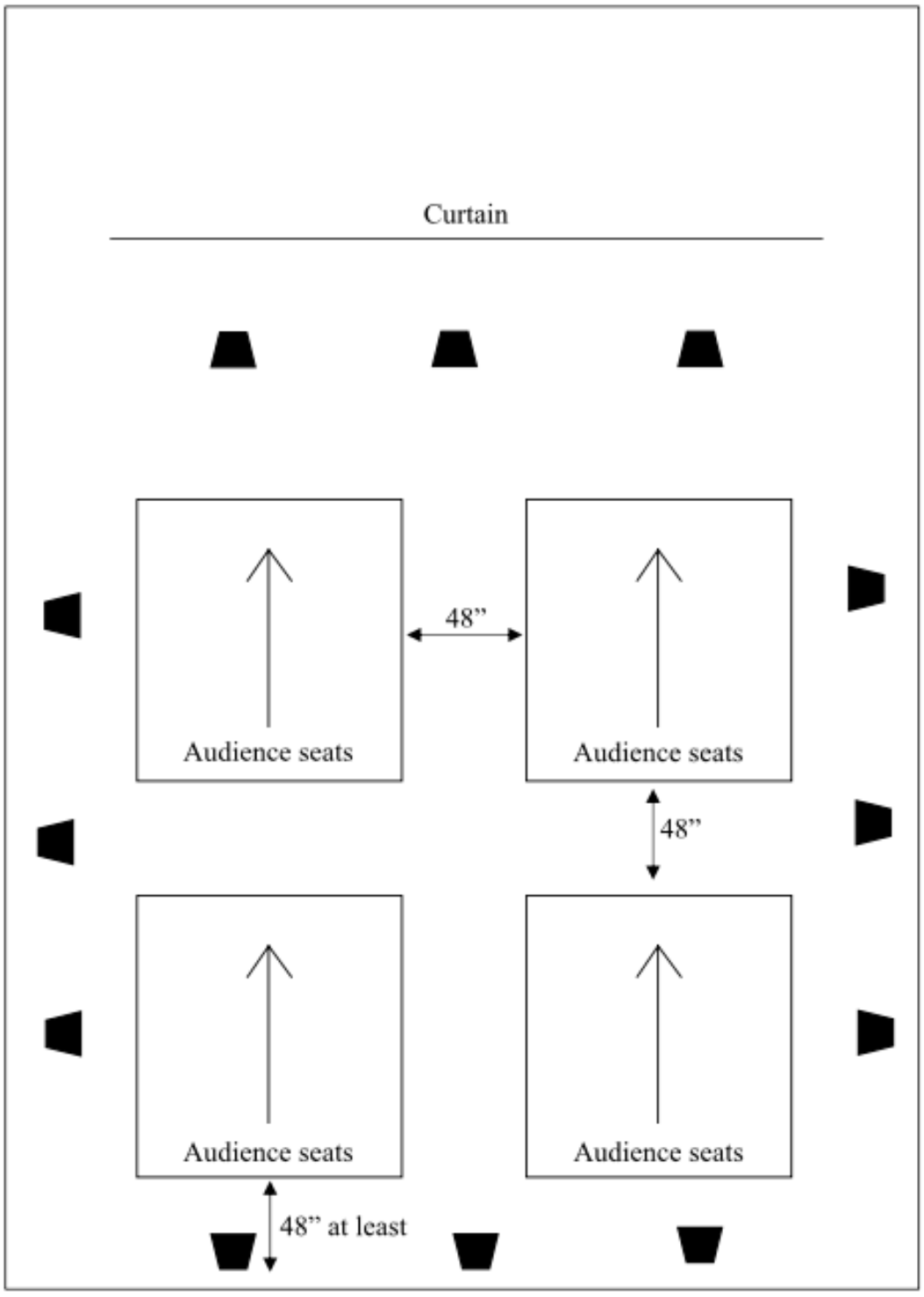

Figure 32 Staging for Shabah duo, showing audience seat safety distance

To heighten the sensory awareness of this audience, I needed to minimize the space between the audience and the performers in addition to the pitch-black hall and

black costumes. Due to the security criteria, the minimum space between the seat groups must be 48 inches so the performers can safely walk through without accidentally hitting the audience. Figure 32 shows the staging instruction image in the score, illustrating the audience seats, distance, and direction in the hall. Also, the area around each sitting group should be glow taped to provide safety for the audience and performers during the pitch black.

- Auditory Experience and Cautions

Furthermore, due to the site-specificity of the piece, it was essential to consider the possibility of using surround speakers to heighten the auditory and spatial experience. Of course, it does not mean I had to maximize using the hall's possibilities. However, using speakers could help amplify contrasts between the Extreme Noise section and the Electronic Birds. Additionally, due to the type of audience and the hall acoustics as a flat black box, using speakers could provide a meaningful decision to manipulate the space and auditory experience.

Using electronic components requires extra care. When an electronic material, either a playback track or live processing, enters the performance, it leads the listeners' expectations in a different direction. It can reduce the sensory effect for the audience. The acoustic physical reality can switch to something virtual, less tangible, and eventually less alarming. Accordingly, reducing triggers for defense mechanisms leads to less sensory experience.

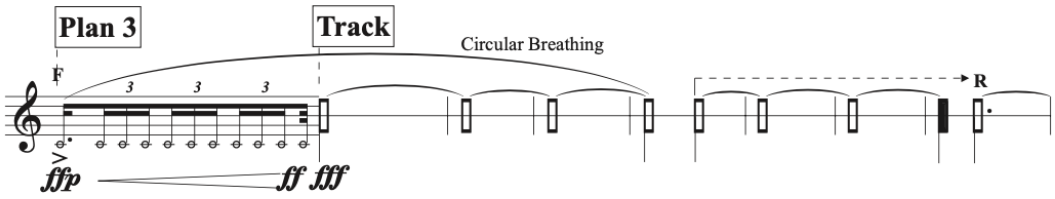

Figure 33 Shabah duo, electronic track entrance

Moreover, *Shabah* was not an electronic or electro-acoustic piece, and the instrumental quality of the piece had to dominate. It was vital to ensure the balance of electronics would not exceed the instrumental quality. What I mean by balance is maximizing the difficulty for the audience to differentiate between instrumental versus electronic characters. Also, it had to be through a playback instead of live amplification for two reasons. First, since the performers walk throughout the hall, cables are impractical, and using Wi-Fi or Bluetooth microphones would come with risks. The second reason is that the chance of seeing microphones attached to the bells (even as low as it could happen in the darkness) would cause the audience to anticipate an upcoming event from the speakers, negating the piece's focus. In order to create an effective sensory experience, I reduce anticipations as much as possible. So, I used the speakers to amplify the Extreme Noise solely with a playback. The purpose of this track is only to accentuate the Extreme Noise in the space to the point that the listeners might need to cover their ears. This track starts precisely when the Extreme Noise section begins, which conventional metric notation can ensure this accuracy (Figure 33). It also only lasts for the duration of the Extreme Noise – which would be a surprise element for those listeners anticipating an electro-acoustic experience for the rest of the piece. On the other hand, the audience might not realize the electronic element of the piece if they are having their ears covered. Thus, using a balanced portion of speakers emphasized the formal contrast I needed for my piece.

Chapter 5: In-Contact@Zero (2022-2023)

In 2022, the saxophonist and a friend of mine, Noa Evan, commissioned me to write a solo saxophone piece for her to premiere in her Atomic Project concert series in 2023. I wanted *In-Contact@Zero* to be an extension from *Shabah* to explore speech-like timbres in saxophone and use theatrical elements to create a ritual space representing recovery from grief. In my first Zoom workshop with Noa, we examined a list of possibilities for tenor and baritone saxophones, and baritone became the best choice.

- Title

During this time, I felt like I was coming out of the grieving stages and moving toward a peaceful acceptance. It was essential to me to reflect on this emotional state in this piece, and the piece's title, *In-Contact@Zero*, has multi-layered metaphoric references to my emotional states throughout grieving. *@Zero* (at zero) is a two-fold metaphor, in which one refers to the sense of temperature – which refers to the early stages of the grief, and the other is a location identifier – which refers to the final stages. The temperature is about how cold we feel inside, thinking of ourselves as being alone in grief, and also how agonizing it is to find the beloved's body cold. On the other hand, *@Zero* refers to location zero, where we find the lost beloved one within ourselves and where it also becomes omnipresent.

- Sketching Time and Memory

In addition to emotional illustration, I wanted to create an accurate time flow in the structure of this composition. Based on my experiences, the time flows differently from when writing a piece to listening to its performance. For example, my experience with the sense of time while composing *Paper Pigeons* was much more patient and detailed than when hearing its performance. Even though I was constantly listening to the metronome while composing *Paper Pigeons*, the performance while following the same tempo, the sense of time felt much faster. The musical details I had initially imagined while composing needed more extended duration to pronounce fully. This experience showed me that components, such as emotions and physical state[13], influence the sense of time. It also showed me that memory is not an accurate measurement of time as the sense of time can be fluid within memory; in memory, a second can take an hour, and hours can flow within seconds. To avoid these memory flaws, I needed to replace my memory with a real-time experience when composing the piece. In other words, I had to find a way to record my musical thoughts as they occur in time. So, I used screen recording while digitally drawing my visual imagination of the music; in other words, I used drawing to save my sonic imagination of the piece the same way the piece would flow in real-time. This video was meant to be a sketch at first; however, I noticed musical qualities in the video that could be complementary to the sound, which otherwise would be left imbalanced. Therefore, the video became a part of the performance items, and it also dictated the length of the piece, 22 minutes and 13 seconds.

[13] As well as visual components, which I learnt from this piece, and will be discussed later.

- Language as a Visual Material Shaping the Music

In this real-time drawing, I used the Persian language as a graphic representation of rhythm, dynamics, and timbre. It means that every calligraphic component is a musical icon to remind me of how the piece sounds at every moment. Even though the semantic aspect of the language carries the narrativity of the piece, the abstract use of the Persian language frees its semantic components. Additionally, this abstraction opens space for non-Persian-speaking listeners to connect with the semantic parts indirectly through other non-lingual elements of the piece. In other words, the semantic narrative is primarily delivered by visual parts and music. Since this video mainly functions as a composition journal of the piece, I am able to hear the sounds by watching this silent video. In this video, I am experiencing the grief that each stage comes with a different brush stroke, density, texture, or rhythm. Also, the abstract use of the Persian language gave me a new perspective on the words and alphabet, and I could see forms, lines, and patterns instead. Accordingly, I did not have to rely upon and limit myself to linguistic structures; instead, I could decompose a word into alphabets, use alphabets as lines and dots, and turn them into other shapes. I could also remove or add any imaginable graphic shapes to those language materials.

Based on the former discussion in this dissertation about the musical influences of visualities, I can argue that these visual components would also add musical effects to the piece. It means a line would have a different musical influence in various lengths, thickness, density, direction, shape, and rhythm. Therefore, the two similar lines would carry a different musical impact. It applies similarly to other graphic materials of the video: dots, shapes, and textures; each variation brings a different

musical effect. For example, the phrase, او رفت. (He's gone.), the first thirty seconds of the piece can present an andante 4/4 melodic phrase in *p* to *mf* dynamics that ends with a decrescendo and ritardando, and even though this section of the piece is a full silent for the performer, the video carries an imaginary musical effect (Figure 34). Thus, the video has musical lines that counterpoint alongside the sonic parts of the performance.

Figure 34 او رفت He's gone. Screenshot from the second 30 of the video

Moreover, since the video is projected on a very large screen (ideally covering a whole wall from floor to ceiling), its visual impact can shape half of the musical materials. So, to play with the balance between the video and other components, I have kept some parts of the video unnoticeable; in some moments, there is no graphical motion, or they are too subtle to be visible to the audience. Also, there are some parts of the video where the graphical events take much longer to get to the level of visible density. Figure 35, Figure 36, and Figure 37 show an example of this

unnoticeable gradual growth of graphic elements in the video. Even though there are about forty seconds between Figure 35 and Figure 36, the difference is only in the level of darkness in the middle background area. Also, between Figure 36 and Figure 37, we can identify the white low-transparent Persian calligraphic gestures that have shown up after about two minutes. However, it is necessary to note that all these changes happen very slowly, making them much less visible and hard to notice. Furthermore, the black and white characteristic of the video leads the visual focus on the shapes, textures, density, and motion, which otherwise would have been neglected in a colorful environment. Thus, the dynamics between the video and live performance constantly switch, making the video a significant part of the piece's musical performance.

Figure 35 In-Contact@Zero video screenshot, subtle and slow transformations, moment 8:57

Figure 36 In-Contact@Zero video screenshot, subtle and slow transformations, moment 9:34

Figure 37 In-Contact@Zero video screenshot, subtle and slow transformations, moment 11:44

- Score, Performer, and Space

Furthermore, video is the leading score of the piece because the performer is reading the music through its specific graphic hints, instructed in a complementary

text score. The role of the music score in this piece is to give just enough guidance to set the space for the performer to reflect. The piece's ritualistic and healing character deviates from a concert experience. On the other hand, considering the length of the piece, having a memorized music notation with busy details can be disruptive to the flow and focus of the performance. The performer must explore their emotional state through the ritualistic element of the piece and express them through the instructed sounds. Therefore, detailed and dictated music notation would not serve the purpose of this piece. The study approach to this score is entirely different from a common score reading practice. It requires a deeper level of imagination and meditation. It is a video that must be watched repeatedly so that each graphic transformation becomes consciously visible to the performer at a pixel level. So, through the process, the performer needs to memorize the graphic micro-moments of the video. At the same time, this memorizing process needs to become an organic after-effect of meditation over the video.

On the other hand, the video score can be perceived as a musical notation with an incredible intensity of information, to the point that every pixel is a musical icon, equal to note-heads, instructing different specific sonic actions. The accompanying text score guides the performer with specific timelines that sometimes require meticulously precise synchrony with the video but sometimes have a more open time frame that can overlap with the past and subsequent sections. It is up to the performer to make those decisions based on their emotional state during each moment of the performance.

What makes this score specific is its video and kinetic quality. Since the video score unforgivably dictates the time, the performer – despite the majority of interpretative space of the piece – needs to ensure precision in synchrony. In this piece, despite the free interpretative sections, time has a solid roughness that must be followed without any delay.

Moreover, the score largely projected becomes another performer to the piece. It is also arguable that the score could be the piece's primary performer, as the saxophonist gradually goes toward the video to finally blend with it and become a part of the video. The video creates the aura of the space and leads the physical performer through the time and energy of the piece. In fact, there are multiple performers in this piece: the video as the primary performer leading the performance, the electronic and spatialized version of the saxophone player, and the physical presence of the saxophonist.

- Sonic Space and Playback

This video inspired our next workshop to explore the possibilities of creating noise-based tones with rich air, ringing partials, and vibrations. We explored brass effects, slap tongues, harmonics, subtones, microtones, air-tones, various embouchure filtering with phonetics, and putting a plastic cup inside the bell. As a result of this workshop, I realized that I was looking for voluminous sounds to create an immersive experience, which led me toward noise-based sounds, which offer a much fuller spectrum. Also, they are in harmony with speaking voice due to their spectral qualities. Furthermore, to achieve an immersive effect, the performer needs to be in the middle of the hall, instead of a projecting stage at the end front, to contribute the sound more

evenly throughout the space. Also, being a solo piece that requires pauses for breathing, adding electronics would help fill the space. So, I collected a list of sounds for Noa to record. In this palette, I am experimenting with various possibilities around each sound, such as switching with or without the mouthpiece, adding or not adding the cup inside the bell, and if the cup should be empty or include objects for extra vibrations. The following is a copy of the recording instructions I shared with Noa for the electronic track sound palette. This recording instruction can be considered a pre-text-score because it shapes the electronic track's sonic materials.

1. **Buzzy Air**
    - With full cup, Mouthpiece On, Circular Breathing, All in *mf*
    - 90% air sound
    - Breathe as calm, slow, and steady as possible.
    - Make sure the pitch/overtones will not come out or dominate.
    - 30 sec tracks, 3 shots on each pitch: Low A, Low Bb, and Low B
    - Total of 9 tracks
2. **H - Breathy Air with Phonetics**
    - The consonants: h, s, sh, f, k, x (no order)
    - The vowels: ɒ (as cup), æ (as cat), e (as shelf), i (as bee), o (as old), u (as tool).
    - (No order applies)
    - Without the cup, With and Without the Mouthpiece, Inhale/Exhale, all in a normal relax dynamic with no force.
    - Breathe as calm, slow, and steady as possible.
    - 1 or 2 shots on each of the following, also with and without the mouthpiece:
        i. One consonant and one vowel at a time
        One consonant and all vowels in moderate-slow transitions at a time
        ii. One vowel and all consonants in moderate-slow transitions at a time
        iii. Mixture of both consonants and vowels transitioning altogether, but slowly
3. **Buzz Tone**
    - With full cup, Mouthpiece On, Circular Breathing, In *p*, *mf*, *f*, and *ff* dynamics

- 90% fundamental pitch
- Breathe as calm, slow, and steady as possible.
- Make sure you are avoiding overtones higher than the first octave.
- As long as possible, a maximum of 1 minute for each track
- Individual recording on Low B and Low Bb, in individual combinations with each dynamic, 2 to 3 shots of each combination
- Total of about 16 tracks

4. **Subtone**
    - With and without the full cup, Mouthpiece On, Circular Breathing, In *p*, *mf*, *f*, and *ff* dynamics
    - 90% fundamental pitch
    - Breathe as calm, slow, and steady as possible.
    - As long as possible, maximum of 1 minute long each track
    - Individual recording on Low B and Low Bb, in individual combinations with each dynamic, 2 to 3 shots of each combination
    - Total of about 16 tracks
5. **Key Clicks**
    - Randomized key clicks, 30 sec to 1 min tracks, 4 shots for each combination.
    - Speed of four 16^{th}-notes on the following quarter-note tempos: 30, 40, 50, 60, 70, and 80
6. **Teeth on Reed**
    - Fingering once Low A, once Low Bb, and once Low B, each 2 shots
    - As long as possible with one normal breath
    - Try the resulting pitch to be steady but do not force it.
    - Try keeping the dynamic as soft as possible.
7. **Brass Split Tone**
    - No cup, No mouthpiece, Circular Breathing is recommended
    - Aim for hitting the split tones at start.
    - Try on Low A fundamental, then separately on Low Bb, and then on Low B.
    - 2 to 3 shots on each fundamental pitch, each with different dynamic: *p, mf,* and *f*

As the recording and the live instrument share the same sound palette, just by creating this palette, I have already narrowed down my composition to a specific range so that the performer is clear about the range of sonic expectations and what to practice. These sounds mainly focus on the baritone's extreme low and high registers.

The buzzy sounds, such as buzz tones, subtone, and brass split tones, explore different buzzing multiphonic timbers of the instrument in the lowest possible pitches, and they respond better. For instance, the low B flat can create much more buzz than the low A (the lowest possible pitch) because it requires fingering and increases the air pressure inside the instrument. On the other hand, although my favorite is the lowest possible tone on the baritone, the low A cannot create enough buzz because it is open-fingering. The exciting quality about these multiphonics was their organic and relatively effortless results because we were preparing to situate the instrument to create them instead of using fingering, with the bonus of extra buzz. However, sometimes the result could be counterintuitive. For instance, experimenting with the cup inside the bell showed that although adding small objects inside the cup might seem to create a richer sound, the extra vibrations or partials resulting from the objects inside the cup could cancel out some of the lower frequencies and weaken them. On the other hand, key clicks and breathy air with phonetics were standing on the higher ranges of the spectrum – specifically teeth on the reed, which could effortlessly create super high partials and could also occasionally create melodic contours with ¾ tones, accidentally sounding like Iranian music.

Furthermore, since Noa had used four different microphones, one clipped to the bell, one close to her mouthpiece, and one to record the room sound, it allowed me to explore each sound from multiple perspectives. For instance, the air-tones with phonetics required the microphones closer to the mouthpiece so that I could hear the timbral changes between inhaling and exhaling each fricative and their vowel combination. On the other hand, sounds such as subtones that were more focused around the bell area of the instrument were recorded much richer with the clipped

microphone and one for the room. Thus, by using different recordings of the same sound, I could change the sense of distance and space, ranging from close to the skin to next to the wall. I wanted the electronic track to sculpt the space.

In order to blend the saxophonist with the space, the electronic track should be only a reflection of the live instrument, and it is preferred that the live instrument is slightly amplified to blend with the playback coming from speakers.[14] The electronic track is designed for 7.1-channel speakers for the immersive spatial effect.[15] So, the playback track sounds like the saxophonist has been amplified (even without amplification) and multiplied into numerous tracks. The playback follows the timing of the video score. There is an interplay between the live instrument and the playback, which creates moments in which each dynamically dominates the other. This connection creates illusory moments that dilute the clarity of whether the instrumentalist is playing. These moments include specifically soft dynamics that raise the listener's attention.

- Visual Balance, Light, Choreography, and Narrative

My approach to the balance in this piece differs from my previous pieces. I am not trying to hide or decrease the performer's visual presence; instead, I am trying to blend the performer with the space. The dominating presence of the video shifts the visual energy centers toward the screen, demanding a new approach and definition of balance. At the end of the piece, the performer stands in front of the video, facing the

[14] The performer needs to use a microphone with a wireless transmitter attached to the bell, duo to the performer's mobility.
[15] It also includes a quadrophonic version for halls with less developed audio system.

audience, and blends with the projection. So, by wearing white, the player shares the same white background as the video. To be in harmony with the video and bring the sense of a ritual, the performer must wear a white one-piece outfit with white socks and preferably no shoes.

Considering the performer's motion in the hall and gradually ending up in front of the screen, I needed to choreograph the motions throughout the piece without disrupting the visual and musical balance. It was also necessary to remember the interpretative and ritual character of the piece. The video should remain the center of visual gravity to maintain this balance. The piece starts in silence (a sonic silence, but not a visual silence), with the video carrying a musical phrase. Therefore, the hall lights need to be all off; however, the video projection would lighten the hall enough for the performer to walk safely.[16]

The combination of the pitch-black hall, projection screen light, and the performer with the white costume illuminated by the screen light walking slowly – and somewhat mesmerized – toward the screen accentuate the ritualistic mood of the piece. It was also necessary to plan the performer's motions in a way that distributed the instrumental sound almost evenly throughout the space. Due to the ritual aspect of the piece, I did not choreograph the performer as intensely and detailed as I had in my previous works; instead, I gave a general framework in which the performer could explore their personal expression. Below are a few examples from my choreographic notes in the text score.

[16] I have also mentioned using glue tapes for safety if needed.

> **Section 1 – Silence [0:00 – 0:26]:** The baritone must be prepared with the cup inside the bell. The performer is ideally positioned behind the audience, runs the video, and walks away very slowly and silently (almost unnoticeably). If the position behind the audience is not possible in the venue, the performer should consider a location inside the hall that is out of sight the most. The emotions presented in this walk should be completely neutral, with the head facing forward and standing tall.
> **Section 1.5 – [0:26 – 0:38]:** Then the performer waits, standing still in silence. The head is up, calm, and facing the screen [until 0:38].
> **Section 2 – Smoke [0:37 – 1:49]:** […] The choice of pitch, breathing, dynamics, and rhythm must come from the performer's emotional state, expressing the shocked and lost initial moments of facing the grief of losing the loved one, but in an introverted approach.

The video's narrative dictates the form of the piece into nine sections: Silence, Smoke, H, Chaos, S, But He Is Back, Clouds Coming, Dialogue, and Present. Silence is the first 38 seconds of the piece, when the performer starts the video and playback[17], inserts the cup in the bell, and stands calmly at the far end behind the audience. Smoke starts precisely on the black drop where the performer plays buzz tones and can use the graphic rhythm from Silence to synchronize their entrance for Smoke. H section is a continuous buzz tone from Smoke for the performer, while the playback uses recordings on phonetic h. "During this section, the performer slowly and quietly walks toward the audience, ending up between the seats, ideally in the center of the venue," as instructed in the text score.

H abruptly ends with Chaos (2:52), when the performer must simultaneously play subtones with the thick black lines happening vertically. This section, overlapping with the S section, lasts about five minutes and is the loudest and most intense part of

[17] The video and playback will be played synchronized together using a DAW. It is required to only synch both files at time zero so that using one click can run both files at the same time.

the piece. The playback track also plays about eight layers of subtone recordings. The synchrony at the entry to this section is essential to create the shocking effect of the moment of realizing the loss, which is in extreme dynamic contrast with the previous super soft sections. The S section also ends abruptly with a five-second silence, and the performer freezes, creating the shocking moment of facing grief. This section would be severe and demanding on the listeners as the loudness should reach the rock concert volume level. Also, considering the length of five minutes, which is almost the length of a concert piece, is a considerable amount of time. Like the duo version of *Shabah*, this moment can force the listeners to cover their ears or experience ringing tones when it abruptly ends. Grief is the heaviest feeling in life, and to fully share its intensity through my music, I need to take my listeners to extreme experiences.

The beginning of the next section, But He Is Back, is flexible. The performer takes the time to silently and slowly remove the cup and place it quietly on the floor (or on a music stand with a towel, depending on the hall floor structure) to ensure no rolling or noise by the cup. Inserting and removing the cup need much attention to avoid sonic and visual disruption. So, these events could happen only once throughout the performance, and I had to compose the piece according to this decision. The first step was to find the right time. I reduced visual distractions by asking the performer to insert the cup at the performance's beginning because the performer would have enough time to do it subtly. Also, putting the performer far behind the audience would further reduce visual distractions. Then, the musical need of the piece dictated when to remove the cup.

In this section, minutes eight to nine of the piece, the performer should choose a moment to play air-tones while inhaling and exhaling as loud as possible, with a rhythm that would suggest mourning. "The performer should also physically represent mourning body gestures, with momentary bending knees, loose waistline, and loose neck, reacting to the breath pressure and struggling to stand upright," as I choreographed it in the text score. I have given the performer the option to get inspiration from my recorded voice, which is hyperlinked to the text score; however, since mourning expressions would be different for everyone, I did not use rhythmic notation to give space for individual interpretation. The performer's air-tones (or Breathy Air, as I named this quality in the text score) connect with the air-tones in the playback, transitioning into the next section, Clouds Coming.

Clouds Coming, minutes nine to fifteen, starts with the key clicks representing rain and teeth on the reed representing a mourning cry. During this section, the performer does not play the instrument; instead "walks slowly and silently among the audience as if the performer is lost in thoughts. The eyes should stare but without any focal point. The performer's body is tired and is walking with almost no energy," as mentioned in the text score.

Around minute 11:40 of the piece, the Clouds Coming section overlaps with the Dialogue section, which represents the part of the grief I found myself in conversations with the imagination of my brother; "آمدم" (meaning I'm back), as appears in calligraphy in the video. Also, the phonetic recordings in the playback are collages of separate fricatives that I combined to sound like a speaking voice.

Section eight, minutes fifteen to seventeen, is the second half of the Dialogue section. From this point, the speaking air-tones become present increasingly, representing the transition toward acceptance and the last stage of grief. At the same time, white graphic elements become larger and denser in the video. During this section, the performer continues the same walk while playing split tones. The split tones resemble the final mourns. The Persian word هست (he is) dominates the final section, emphasizing the omnipresent feeling of coming out of the grief. It appears as calligraphy in the video and with a phonetic collage in the playback track. This section overlaps with the final section, Present, instructed as written below:

> The beginning and end of this section are not precise for the live performance. The performer keeps walking very slowly toward the screen, with the physical gesture continuing from the previous section. Depending on the size of the venue, the performer can spend longer time among the audience or even stop for brief moments, looking lost. The performer can choose to perform very soft Subtones or not to play any sound. At the end of this section, [between about 19:00 to 21:00], the performer should have reached the screen, leaned back to the screen as if being exhausted, and stared at the horizon behind the audience with tired eyes. The performer can end the piece in silence or keep playing the Subtones.

- Time Perception

As I previously mentioned, I created the video to take control of the flow of time. The video dictated the form of the piece and became a part of the performance. However, I noticed a shift in my time experience as I started working with the video. I realized that my sense of time was different when solely dealing with sound, such as listening to the electronic track or imagining the sound of the piece, compared with the moment the video accompanied it. For example, the experience of nine minutes of solely listening to the electronic track seemed like three minutes when combined

with watching the video. This idea can be explained by Jeff Pressing's time perception theory: even though I tried to record the "objective clock time" while sketching the electronic track, I noticed a shrinkage of my perceived "musical time" while listening to the track accompanied by the video (Pressing 1993).

Scientific research by Aurelio Bruno and Guido Marco Cicchini shows that the visual elements, eye movements, space, and mood can impact the time perception:

> Visual time processing in the sub-second range [is] often called 'perceptual timing,' which is of a highly perceptual nature and it is not accessible to cognitive control, rather than supra-second time estimation, which is likely to rely on higher cognitive systems or memory. […] Despite the fact that time appears as a unitary dimension, evidence is building for the idea that brief intervals are handled differently by different modalities. Within the visual modality, the changes in apparent duration described here can be caused by adaptation at multiple stages of the visual pathway suggesting that several parallel clocks exist, which estimate time independently across the visual field. Many of these findings are also consistent with the idea that specific temporal modules can be formed with relatively simple neural mechanisms (Bruno & Cicchini 2016).

According to Bruno and Cicchini, time is not a "unitary dimension" and is highly influenced by visual stimulus. Therefore, I cannot repeat the sense of time by recording it in a composition mode and expecting the same experience to happen while listening to the performance. In other words, the experience of time can shorten or elongate depending on various stimuli, which means that my experience of perceiving time faster is only one of many possibilities. Even though this scientific argument denies my ability to record time, it emphasizes my previous argument about listening being an audiovisual experience. It means that visual elements can influence the

experience of listening and time, which is why, as a composer, I have meticulously controlled my pieces' visual components.

Conclusion

I can conclude this dissertation with the idea that grief, as a part of my life, has been a powerful influence on my composition. I cannot certainly argue I have fully recovered from grief by this time; however, I can certainly claim the therapeutic impact of composition in my life. What I define for composition is an in-between meditative space that helps me dig inside my deepest emotions and discover new connections with myself and the outside world. In this space, life events bring different meanings and messages each time, and among them comes grief. The same space also leads me through my composition and, consequently, through my research topics. This space creates a network of causes and effects that fade into each other. Therefore, even though the reader might lose track of grief when reading the analytical parts about the pieces, the grief has, in fact, transformed itself into musical components, and then the musical components have turned into further research topics. And the complexity of this network is always growing as my life gets more and more complex. So, I expect the older I get, I will need to unfold more entangled layers, and it is going to be a lifelong searching process.

As a composition teacher of my free online music academy, MOAASER[18], I push my students toward self-discovery because there is a cyclical relationship between composition and meditation. To become a strong composer, one must find one's

[18] MOAASER, formerly known as MMCiran (founded by Nasim Khorassani), is a tuition-free online music academy co-founded by Nasim Khorassani, Pedram Diba, and Sohrab Motabar, focusing on contemporary experimental music. The academy provides free annual courses on contemporary music theory, analytical thinking, research discussion, active listening, and performative collaboration for students living in Iran. It embraces freedom of speech, equality, individual voices, non-grading formative assessments, productive conversation, and collaboration. The teaching team at MOAASER includes all three co-founding members and Bahar Royaee. You can find more information about MOAASER here: www.moaaser.org

fingerprint, which requires meditation and self-discovery. Also, for improving meditation and self-discovery skills, music composition provides a safe and fruitful space that everyone can benefit from. My meditative composition space comes in between being awake and dreaming. In that space, I feel disconnected from the outside; I do not see anything or hear anything, but I am curiously and peacefully traveling throughout this space. I continue exploring that space until I find what I need for my composition, and it can take months, depending on each piece. Since this space is on the border between the state of consciousness and dreaming, it sometimes causes me to sleep while still composing. On the contrary, it can also take me away from the middle of the night while sleeping in this space, which leads me to wake up and write down my ideas. I have composed a few pieces in this state, such as my first jury piece, *Unknown* (2018), and the current piece that I am working on, *Home* (Upcoming), a three-hour-long experimental opera.

Commissioned by Project [Blank] San Diego, *Home* will be premiered in Spring 2026 at the Bread & Salt Gallery. *Home* is also the outcome of this series of compositions that brought these elements of grief to a more conscious level and increased awareness of my life as an immigrant. *Home* will be an experimental opera that crosses the border between installation performance. Using installation-based space will allow me to avoid having a single narrative, as conventional opera is limited. Instead, I will use the whole space of Bread & Salt and spread the performers moving throughout the space. Therefore, the listeners will create their own narrative, depending on their sight perspective and interaction with the performers.

Connected to the grief concept, *Home's* narrative will not be comfortable like my other recent works. Therefore, to balance the discomfort, I will be collaborating with my sister, Sahar Khorasani, who is an illustrator, and her illustrations are going to bring colors and beauty to the life of this performance. These illustrations will be projected on the walls, providing virtual staging in the space with which the performers interact.

This opera has many more layers, but I prefer to keep them unrevealed until the premiere to store their impact. I am excited about this project because it will be my first time collaborating with my sister. I think this collaboration can bring us another level of healing, supporting each other, and reflecting on our shared grief. I would like to close this dissertation with an invitation to use music composition as a self-reflection and healing space because it is the most fruitful and joyful.

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