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Merits of Solo Voices

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

in

Music

by

Tiange Zhou

Committee in charge:

Professor Roger Reynolds, Chair
Professor Mark Dresser
Professor Tom Erbe
Professor Victoria Petrovich
Professor Wilfrido Terrazas

2021

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University of California San Diego
2021

DEDICATION

To my parents

Zhou Bo and Zhang Xinyong

who have always encouraged me to be a brave person with an independent mind

To my partner

Marco Bidin

who inspires me to believe that I can be more than just an individual

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Zhou_recording_*Rough_Shell*_solo_bass.wav

Audio recording of *Rough Shell,* performed by Mark Dresser on May 2021 Conrad Prebys Music Center. UCSD

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And thank you, Andre Munsey and Douglas Osmun for making recordings of the dissertation pieces.

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ABSTRACT OF THE DISSERTATION

Merits of Solo Voices

by

Tiange Zhou

Doctor of Philosophy in Music

University of California, San Diego, 2021

Professor Roger Reynolds, Chair

This dissertation aims to unravel some of the mysteries surrounding my recent compositional practice by investigating my entire creative philosophy, and supporting it with evidence from an in-depth analysis of three recent solo pieces with regards to both musical materials and working processes. The overall structure of this study takes the form of seven chapters, and will begin by establishing the precise philosophical scope of this research through personal assertions and responses to pertinent theories. The second chapter focuses on incorporating embodied experience into this discourse and defining my personal positions within the space of creation. The third chapter will discuss the methodology employed in this study,

with a particular emphasis on the theatricality of the performance format along with the heterogeneous nature of both sound objects and collaborative process. In chapters four to six I will present as case studies, three of my recent solo pieces: *Bridge* - for solo flute, *Rough Shell* - for solo bass, and *PUPA* - for solo percussion. Doing this serves the dual purpose of presenting the three solo pieces, and establishing the validity of previously explained theories. Finally, the conclusion summarizes my relevant ideas on composition and collaboration, while also discussing areas for future research in the area of solo musical compositions. This discussion will be informed by my experiences with these three collaborative projects, and I will also provide suggestions for resolving some specific compositional predicaments which I have encountered.

Introduction

Indeed, one shall never object that solitude has been a significant part of the human experience since the beginning of human history. A considerable number of populations, now more than ever tend to exist as parallel lines to each other with only limited interactions. Although in many ways people are isolated to begin with, most of us experienced unparalleled solitude during the Covid pandemic in the 2020s. Social insecurity has perhaps spread faster than the virus and this has revealed a variety of related issues. In these times of crisis many may find that empirical figures begin to lose their meaning, and that in this state of mind surrealism superimposes itself upon reality. Notably, the pandemic setting has established interferences in both our physical and mental spaces. The character of the pandemic interferences shares some similarities with the designed interferential elements that some architects "push" into apartment design. For instance, in *House IV* in Cornwall, Connecticut, the United States by Peter Eisenman[1](**Figure 1**.), the designer has installed columns hanging over the dinner table to create incidental impediments that may interrupt conventional living in the space. Alternatively, in *House NA* in Tokyo, Japan by Sou Fujimoto[2] (**Figure 2**), the designer has perplexed the floor plans to reduce the distinction between indoor and outdoor space, an innovation that playfully disturbs ordinary living norms.

---

[1] Eisenman, Peter, Peter David Eisenman, Peter David Eisenman, and Peter David Eisenman. *House X*. Nova Iorque: Rizzoli, 1982.

[2] Pollock, Naomi R. "HOUSE NA, TOKYO-SOU FUJIMOTO ARCHITECTS." *Architectural Record* (2012): p.54.

Undoubtedly, these interferences created through architectural design are impactful, but I would argue that the interferences caused by the pandemic have been much more intrusive. Innovative but obtrusive designs like those outlined above can be appreciated by individuals artistically, as long as they do not have to respond to these interferences in their daily lives. On the contrary, in our current situation, it is almost impossible to avoid the interferences of transparent columns, walls, and fences. To avoid accepting these "spaces" is not anymore a productive option. What is absurd about living with these obstructions however, is that even intangible obstacles can initiate compulsory, embedded, and embodied experiences. Moreover, these obstructions can be temporal as well as spatial, forcing us to compress our activities into restricted temporal spaces.

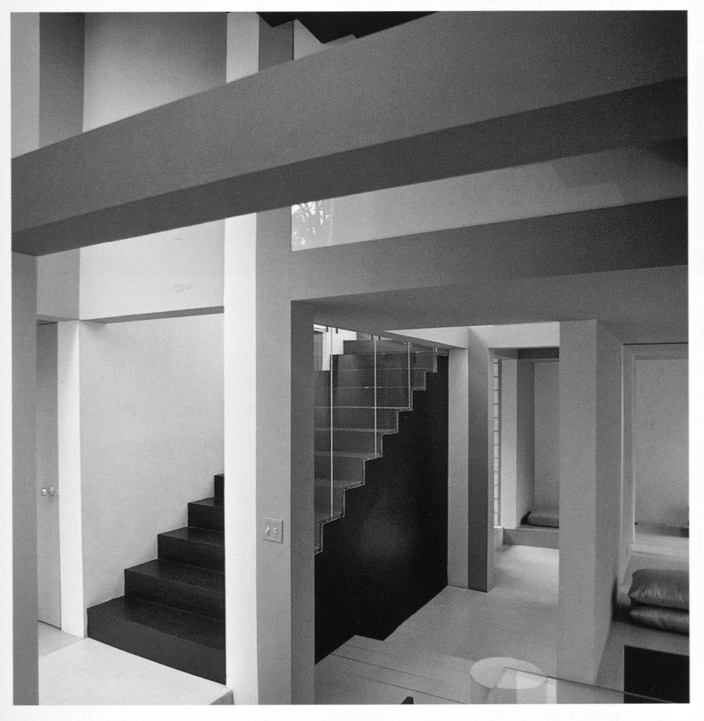

Figure 1 - *House IV* in Cornwall, Connecticut by Peter Eisenman

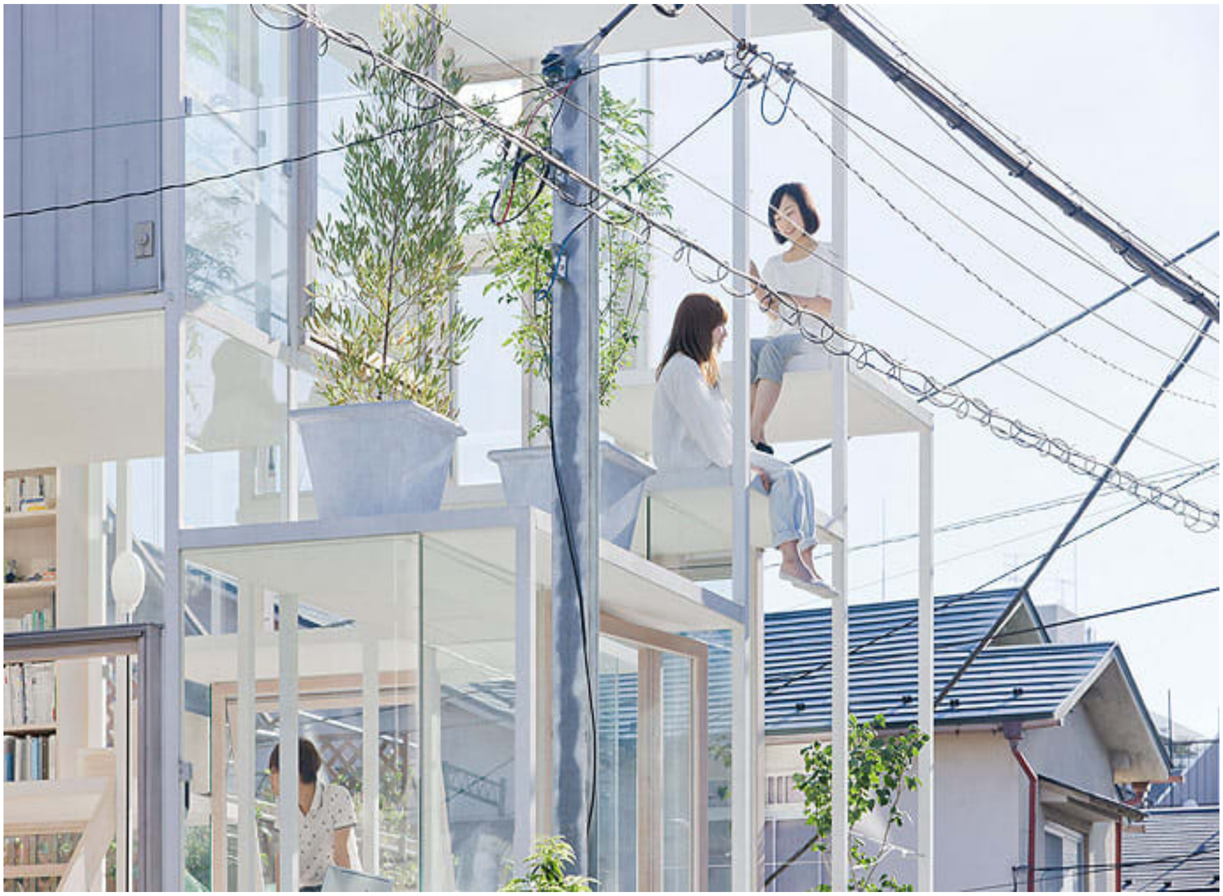

Figure 2 - *House NA* in Tokyo by Sou Fujimoto

Suppose one constantly experiences overlap and conflict between the activities associated with their personal/creative space, living space, and embedded mental space, forgetting to establish some self-consistent stability. As a critical factor, it may reduce individuals' spiritual gravities, consequently enhancing feelings of incapability, powerlessness, and impotence, leading one to fall into an unstoppable vortex of skepticism. Indeed, it is grinding to maintain momentum and continue to develop under the constant barrage of disturbances and constraints. Even though people may not verify the most productive method of in-crisis music-making until a few years later, one may still hope their decisions during such times would follow the most effective trajectories. Certainly, in these types of situations, it is easier to be "not wrong" than to be "right." **Figure 3** shows Rodney Brooks's outline for collision detection systems in robots showing three stages of improvement in cognitive structure from simply avoiding objects, to finally exploring a space. This system has parallels with our response to the new types of collaborative interactions necessitated by the pandemic restrictions. However, humans are complicated entities, and it can be difficult to convince them with "guidance" that they can even overcome the second stage of "Wandering Around". The desire to be meaningful is part of what makes us human, and our embedded motivation engines are constantly searching for significance in ways that are either temporary or sustainable.

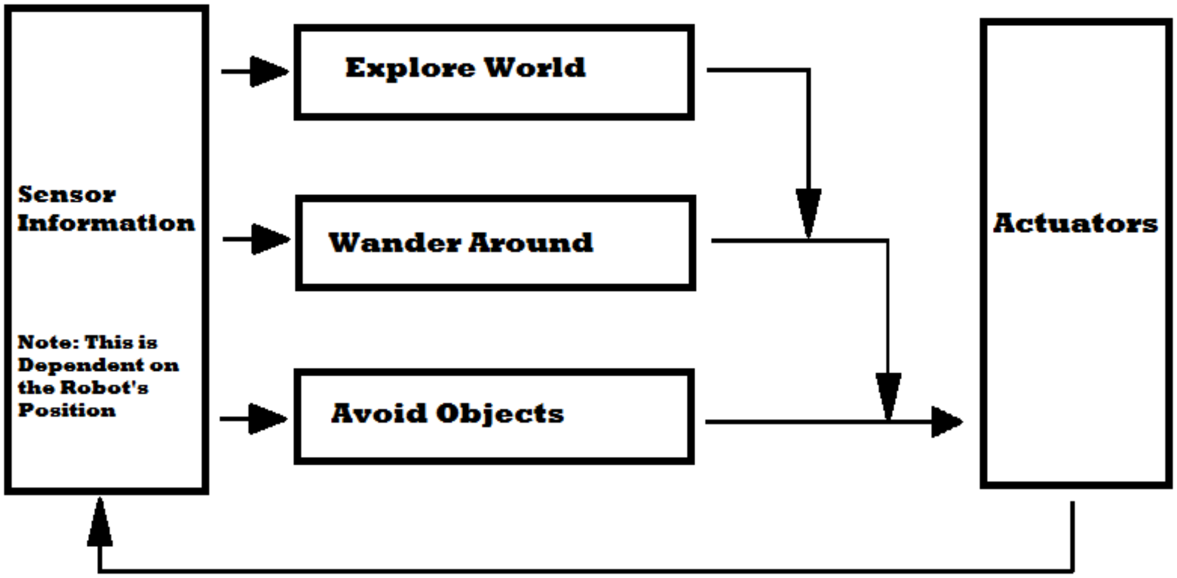
Explore World
Sensor Information
Note: This is Dependent on the Robot's Position
Wander Around
Actuators
Avoid Objects

Figure 3 - Brooks *"A robust layered controlled system for a mobile robot*" (1986)

I agree with Frankl's argument in his book *Man's Search for Meaning*, in which he says that" *Ultimately, man should not ask what the meaning of his life is, but rather he must recognize* *that it is he who is asked.”*[3] This point needs emphasizing, since many believe that the outcomes of one’s search for meaning are more valuable than the purpose of the question, the person experiencing life, and their relevant responsibilities. Perhaps one of the pandemic’s positive side-effects is that the difficult situation has aroused self-reanalysis in many people. In performing this reanalysis one may find some implicit characters that have served as symbiotic creative fundamentals for years. These fundamentals, moreover, are established from individual experiences and identity. My own reflection during this time has reinforced the notions that co-existing with the interferences is ineluctable, and thinking entities are destined to experience solitude. Thus I would love to find a place to listen, observe, dissect, analyze, and celebrate our collective solitude, and embody them with musical representations of solo music.

In contrast with the stagnation of large-scale music activities such as orchestra performances or opera productions worldwide, solo instrumental music performances have been widely engaged with during the pandemic. Examining the reasons behind this phenomenon, the most crucial reason is likely the fact that solo settings can naturally support virtual concerts without compromising performance quality too much. Second, it may actually reduce some inconvenient aspects of the composer-performer collaboration and allow people to work together efficiently despite the geographical distance.

Because of pandemic public health policies, millions of people have situated themselves in a physically exclusive space. Consequently, the “silo mentality” becomes a representative symbol in this collective human memory. In some sense, empathy is compounded in this landscape, since we are experiencing such an accumulation of solitary individuals. Therefore, I have cultivated a spirit-body that could interact meaningfully with the challenges that arose during the dissertation process, and hope to grow from navigating these emotionally complex situations.

---

[3] Frankl, V E.. Man's Search for meaning. n.p.: Simon and Schuster, 1985.

Suppose one is curious what solo music pieces are beyond the fact that they are musical spaces designed as territory specifically for one player. Unquestionably, however, these situations are still collaged entities, where many aspects such as staging, performance space, and performer affect come together in performance. Musical creators could construct this notion from an individual's embedded body agency and its associated symbolic significance. However, standing from a composer’s perspective, I would challenge the notion that a given musical piece always begins with the first musical event one has perceived in performance. For me, the piece started at the beginning of the composition process, and will continue through the process of editing the concert recording and documenting my immediate or later responses to the music for possible future consideration.

Chapter 1. Scope

1.1 The Role of the Body in Artistic Creation

Unlike western mind-body philosophy, which was historically based on dualism and only began moving toward a holistic approach about a century ago[4], a significant portion of Asian mind-body philosophy has been documented as a holistic existence since time immemorial. This is not to say that Eastern philosophy is incapable of classifying or separating its constituents. Indeed, since the time of ancient Buddhism and Confucianism, people have believed that cultivating and improving the quality of their souls is the optimal way to practice their beliefs[5].

However, a critical aspect of this eastern philosophical holism is the strong interdependence of these two aspects of existence. For example, in Buddhism, there is a concept known as *Nama -Rupa*[6], which literally translates as "name" and "form," but represents the Siamese juxtaposition of physical and mental body subjects. Another example of eastern philosophical mind-body holism can be found in Confucius's ancient work, *The Great Learning,* where a single instruction served as the ideological standard for an entire class of scholar-officials. This instruction suggested that individuals should first cultivate the body, then make sure the family and home are in good balance, then regulate the state, and finally bring about world peace[7].

---

[4] Rozemond, Marleen. "Descartes on mind-body interaction: What's the problem?." *Journal of the History of Philosophy* 37, no. 3 (1999): 435-467.

[5] Slingerland, Edward. "Body and mind in early China: An integrated humanities–science approach." *Journal of the American Academy of Religion* 81, no. 1 (2013): 6-55.

[6] Falk, Maryla. *Nama-Rupa and Dharma-Rupa: Origins and Aspects of an Ancient Indian Conception*. Jain Publishing Company, 2006.

Since the Confucian philosophy does not regard the body as a distinct concept from the mind, cultivating the body in this context also entails cultivating one's virtue. Thus, under the influence of this concept, individual progress and growth requires the perfect integration of the body's physical and mental aspects. This ideology, which suggests starting one's life journey by refining the "body" (self-consciousness of virtue), was widely accepted by the ancient scholar-officials, the social stratum that has controlled thousands of years of social development in China. Consequently, this Confucian concept of body-mind integration has been firmly implemented in the ethical discourse of Eastern societies throughout history, and continues to have an influence in contemporary society.[8] Considering the extent to which our sociocultural surroundings influence our sense of self, as well as our aesthetic preferences, it seems appropriate for me to trace my ways of thinking about the body, and incorporating it into my creative work back to these ancient cultural ideas.

Whether we admit it or not, composers' bodies have played a significant role in the creation of their music, despite the fact that the concept of "creativity" is often discussed on more mind-related terms. In the creative practice of a solo artist however, the body itself always comes before thoughts or music. I concur with Maurice Merleau-Ponty that the body serves as our fundamental medium for experiencing the world[9]. In solo performance then, the body acts not only as a medium to carry a previously existent aura into a given artistic space, but also allows this material to in turn influence the body, and through it further musical outcomes. For me, this is worth emphasizing because it recognizes the body's qualities of "incompleteness" and its “complementary" relationship to the mind, in which the body is not only a container but also a real-time transmitter and receiver. These ideas about the importance of the body in compositional practice have been reinforced by many of my experiences with composition, and collaborative creativity.

---

[7] *Daxue and Zhongyong (A Bilingual Edition)*. The Chinese University of Hong Kong Press, 2012.

[8] Kanaev, Ilya. "New interpretation of chinese classics:«the great learning»." *Revista Inclusiones* (2020): 587-599.

[9] Merleau-Ponty, Maurice. *Phenomenology of perception*. Routledge, 2013.

In this regard, I have mixed feelings about post-structuralism, genealogist philosophers such as Foucault, who argued that the way in which individuals understand and express themselves relates not only to their own self-assessment, but also to how they can be seen, described, and measured by others. These factors are in turn manipulated by epistemic frames and the constraints of power behind these frames.[10] I doubt this could be a disguised attempt to make an argument for fatalism. On the one hand, I humbly acknowledge and respect the critical roles that history and experiences have played in shaping the body subject[11]. On the other hand, I'm not sure whether one should obsessively pursue knowledge regarding historical power dynamics while ignoring the influences of the underlying reality of the body with regards to the skeleton, sinews, muscles, etc.

Recognizing this inadequacy, I suggest that each individual question whether their current state is only the inevitable result of past experience. In fact, passive acceptance of fate may erode the judgmental advantages that one gains from the first-person perspective and cause them to miss meaningful opportunities to break through their apparent predicaments. Therefore, it may be dangerous to overemphasize the absolute influence of the past upon the present or to attempt to solve our current dilemmas through historical analysis alone. Nevertheless, it must be clear that the preceding discussion should not discourage the consideration of questions regarding the creative body from a number of different angles. Quite the opposite, I find that taking various observational positions can often pique my interest in investigating the body-oriented concepts associated with music-making.

---

[10] Bevir, Mark. "What is genealogy?." *Journal of the Philosophy of History* 2, no. 3 (2008): 263-275.

[11] The body subject here refers to a unified mind-body concept.

1.2 Body with and without Organs[12]

To begin my investigations, I must first determine, in regards to my own philosophy of music, whether an individual piece is an exclusive self-consistent universe in the same way that a body is. Indeed, despite significant disagreements regarding the definition of segmentation, both the Pythagorean and Platonic schools frequently attempted to define musical works as expressions of a certain ideal totality[13]. Although this interpretation is in many ways convenient, I still maintain my own position that it is improbable for musical pieces to exist in absolute totality and integrity. Perhaps Deleuze and Guattari's arguments in *A Thousand Plateaus* are more persuasive, with Ronald Borg’s exquisite saying“ *music is an open structure that permeates and is permeated by the world,*” providing a summary of their claims.[14]

---

[12] The organs in this paper refer to parts of the body that have a particular purpose, such as heart, brain, eyes, ears etc. *Oxford English Dictionary,* 2nd ed. (Oxford: Oxford University Press, 2004)s.v. “Organ.”

[13] Godwin, Joscelyn. *The harmony of the spheres: The pythagorean tradition in music*. Simon and Schuster, 1992.

[14] Bogue, Ronald. "Rhizomusicosmology." *SubStance* 20, no. 3 (1991): 85-101.

For me, this conception of music is nearly ideal, as it accounts for both inward and outward stimuli play roles in various music-making practices. Deleuze "becoming" appears to have a time-domain advantage over Heidegger's "to be." However, I find the concept of "becoming" to be only partially satisfactory. Some key conditions that affect decision-making appear to have been overlooked in this case. For example, Nicolas Bourriaud, author of the influential theory book *Relational Aesthetics*, was a sincere Deleuze follower and profoundly influenced by his macro concept of infinite extension and interweaving.Without a doubt, Bourriaud's theory elicited a trend toward creating art that is inspired by or based on human relationships and their social context as with "the butterfly effect". He once asserted that the role of artworks is no longer to create fictitious and utopian realities, but to serve as actual modes of living and models of action within the existing real.[15]

I agree with the majority of Bourriaud points, particularly his encouragement of inclusive art-making. One work, which I find to be representative of this ideology is the installation *Untitled* by Félix González-Torres, a Cuban-born American visual artist (Figure 4). This project involved piling hundreds of candies on the floor in MOMA and encouraging spectators to take them away. Since the work was then transformed substantially through audience participation, the design of the work naturally incorporates its spectators' bodies into

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[15] Bourriaud, Nicolas. "Relational form." In *The community performance reader*, pp. 101-109. Routledge, 2020.

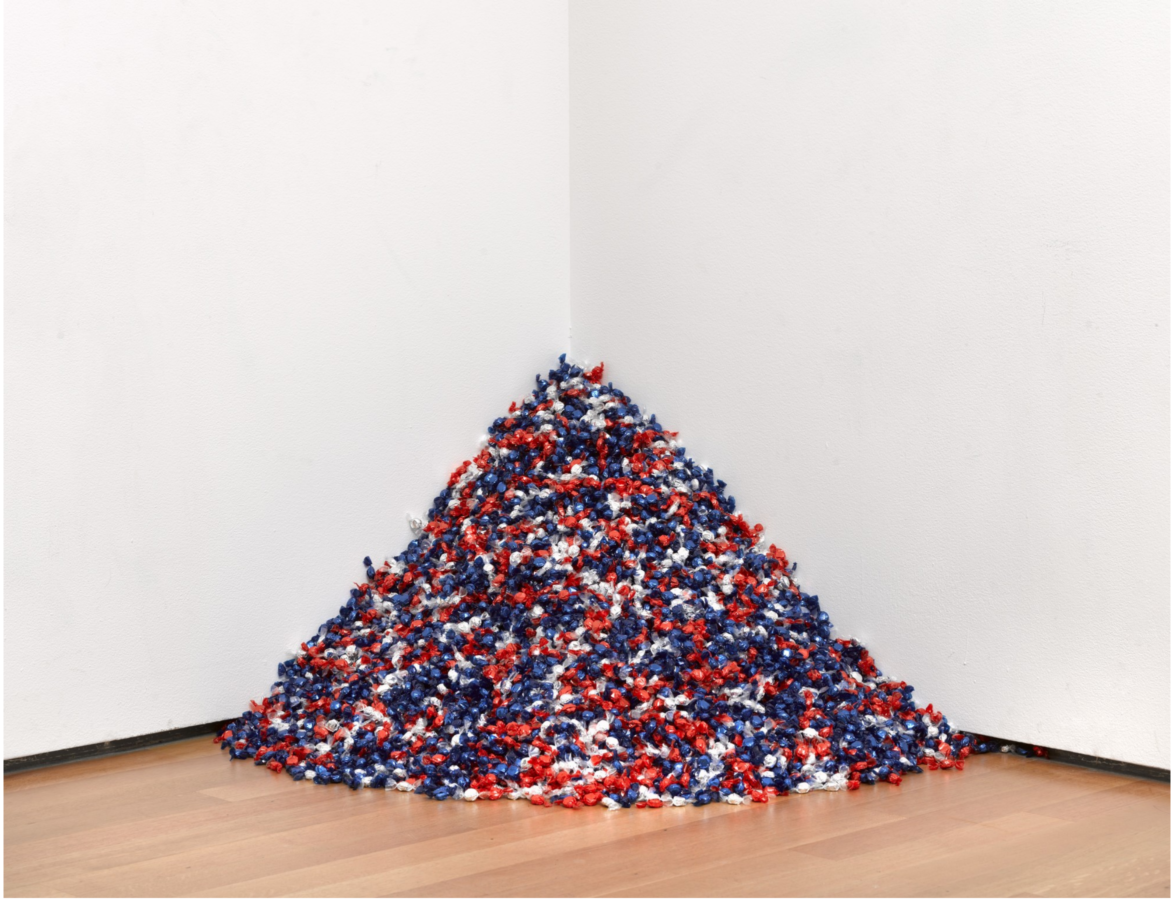

Figure 4 - *Untitled* by Félix González-Torres, displayed at MOMA

the reshaping process of the artwork without requiring any specific expertise on the part of the participants. Certainly, the work has connected participants who may have barely shared social territories prior to experiencing it, and in a way may have created a sort of community out of those who participated and shared the collective memory of their experience. To some extent, works like this may achieve Bourriaud's goal that artworks serve as actual modes of living and acting[16].

Nevertheless, seeing this installation was unable to persuade me to believe in radical relationalism. While this infinitely connectable theory appears to be reasonable at first glance, its infinite extension or “everything is connected” philosophy may lead to poorly defined muddy swamps of thought. Neglecting people's insensitivity to the innate advantages of a situation, which are vital for proving certain ideologies, those who deeply appreciate radical relationalism may be excessively swayed by social and political power. If one attributes the reality of life today mainly to historical or social inevitabilities, one may fail to recognize the impact of individual contingency and decision-making upon the current situation. Further, a belief in the infinite correlation of all things in the world, combined with a fear of being abandoned by others, may compel one to try and fit into a so-called “collective”, while ignoring their own intentions. In response to these kinds of concerns, I have, throughout the years been extensively celebrating human individuality and solo voices in my compositions.

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[16] *Ibid.*

Returning to González-Torres' Untitled, what this specific artwork could offer participants is not limited to a static symbolic phenomenon, but rather includes a high degree of unpredictability, non-repeatability, and reliance on non-recapitulatory behaviors. To my point, an artwork or a piece of music, on the other hand, continually draws its own actual relational scope, with fluid borders that are constantly redefined according to the available possibilities. The participatory bodies in Untitled, take the form of both the organic matter of the participants, as well as the symbolic matter which connects them, and these two bodies are intimately involved in the art-making process. It's critical to understand that González-Torres has created a participatory environment in which an unusual behavioral manifestation is derived from everyday behaviors. In experiencing the piece then, audiences’ bodies are likely to actively or passively experience the artist's concept of “strange familiarity” due to the familiar everyday behaviors involved in the work here being uncannily decontextualized.

It is worth noting that the heterogeneous transformation in *Untitled* do not result in randomized unconscious manifestations. In fact, the specific participating guidance has generated a transient otherworld that runs concurrently with and overlaps with what individuals refer to as the objective world's norms. Given these points, the whole artwork becomes a conceptual body, without organs, but which necessitates the participation of concrete bodies with organs in order to exist as intended. If we discuss the concept of a unified body (with or without organs) in relation to the nature of individual experience, one may see the artist and audience both as participants and observers who exist simultaneously within and outside the sphere of possibilities that make up of this artistic generation- decay process shown in **figure 5.**

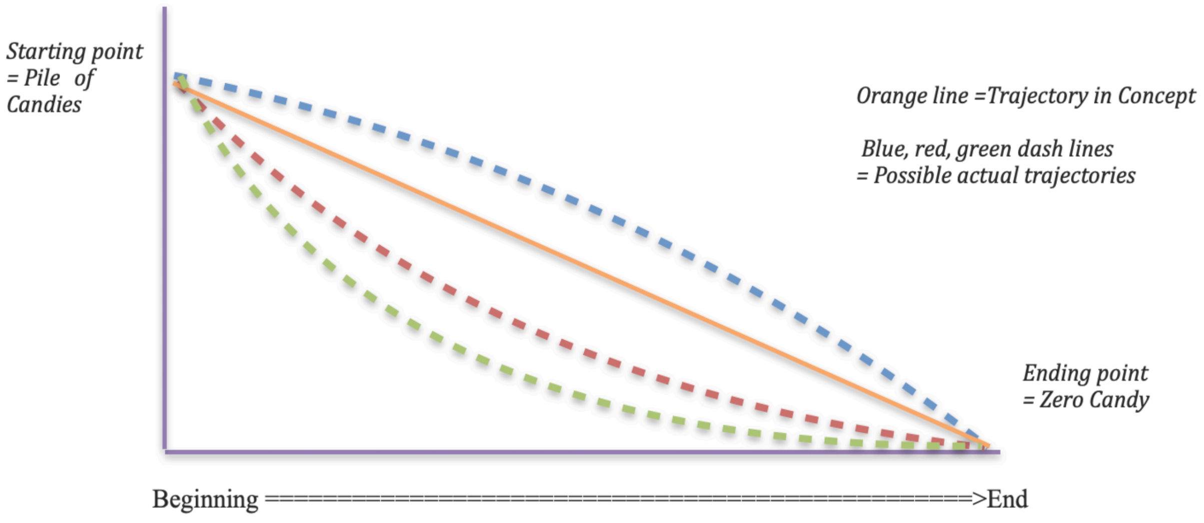
Starting point = Pile of Candies
Orange line =Trajectory in Concept
Blue, red, green dash lines = Possible actual trajectories
Ending point = Zero Candy
Beginning ===>End

Figure 5. The artistic generation- decay process at work in *Untitled*

Yet, according to a conventional point of view, because people have varying perspectives on information, their perceptions of even quantifiable trajectories that emerge in practice should be quite different from one another. This then necessitates a wide and somewhat flexible definition of the work itself, since the concrete materiality of the work is always subject to variability. This fact is indeed responsible for much of the work's success. On the one hand, this model of flexibility, and openness with regard to participatory modes recognizes the variability of bodily attributes and therefore evokes individuals' bodily agencies to engage in their own ways, and "resonate" with the provided concepts or provocations. On the other hand, the work is also quite well-designed in González-Torres's decision to define only a single instruction with regards to how participants should interact with the work. The "narrative" of *Untitled* must begin with the installation of the pile of candies in the museum space and must conclude with the removal of the last piece of candy. In other words, although the work is inclusive, it shows the inevitability of a necessary beginning and an ultimate result."The story" has to begin when the pile of candy was installed in the museum space and will end when the final piece of candy is taken away. In other words, the work is an inclusive entity but demonstrates the inescapability trajectory from a necessary beginning and a necessary ending **(Figure 5).**

Chapter 2. Position

2.1 Embodied Resonance

It must be clear that the term "resonate" used earlier is not restricted to the metaphorical realm. On the contrary, I've become even more sensitive to the resonance associated with specific concrete body elements, such as breath, heartbeat, visceral locations and partitions, cerebral blood volume, and the concentration of specific enzymes in the body's tissues. Despite the sound of this, I promise that the following discussion of bodily resonance will not devolve into an anatomy lesson, as the interest here is not medical. In fact, the purpose of these "laboratory test-style" observations is to gain a better understanding of the mutual influence and independent coexistence of myself and my musical works. For example, as a result of my medical history, I frequently experience shortness of breath. This leads me to subconsciously believe that the concept of a slow and steady meter is almost hypothetical because I have a difficult time embodying it in my day to day activities due to the frequent interruptions caused by breathlessness. Because of this, I find that in listening and composing music, my perception of meter is sometimes quite different from that of a person who is in generally good health. Therefore my internal definition of consistency is a little different from what others may assume when thinking from their own experience, and this fact may have something to do with the ways in which my works tend to transform musical materials rather frequently.

In addition to the preceding example, I would like to share my listening experience with Alvin Lucier's work for a solo triangle, *Silver Streetcar for the orchestra*. I have heard this work several times from my first exposure at the age of seventeen, to my most recent experience at twenty-nine, and over this time, my perception of, and response to the work has changed drastically every couple of years. I must admit that at first, this work was pure torture for me, due to the instrument's constant high-frequency resonances. Over time, however, the listening experience has become increasingly enjoyable, a phenomenon which I ascribe to the fact that as people age, we tend to lose our ability to hear higher-pitched frequencies.[17] Given that Lucier composed this piece when he was 57 years old, it is possible that the tortured experience of my seventeen-year-old self in regards to these high frequencies was an experience the composer did not intend to create since these tones were likely inaudible to him at the time of composition. Thus, even if we confine our discussion to the level of the physical body, it’s not difficult to imagine how drastically different individual audience members ’experiences will be from one another. This fact raises a number of questions in regards to traditional conceptions of compositional and artistic practice. Is it possible for a composer to reconcile their personal experience with that of the audience members? What kinds of relationships between composers and their works are possible? In other words, the composition space, where might effective spots that a composer may locate self?

2.2 Composer as a Soloist - My Relationship with My Compositions

The reason I bring up these two observations regarding bodily resonance is as a means of discussing the ways in which these conceptions have directly influenced my recent understanding of composer-composition relationships. Because of this, they have also had a direct affect on the nature of my compositions themselves. My current practice of fostering relationships with my work that are inclusive, complementary, and symbiotic, was not, however where my compositional journey began. Even until a few years ago, the primary goal of composition for me was to maintain control of the moment and to unify as much as possible the listening experiences of others. For a long time, I have been obsessed with the perfection of a particular musical writing system and the utmost theoretical balance. Perhaps one can deduce that this almost paranoid desire drove me to commit another type of compositional irresponsibility: excessive reliance on algorithms. Such an algorithmically based approach is not the deep learning audio retrieval algorithm I've been working on in later years for purely technical purposes, but rather a period of excessively system-oriented music-making.

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[17] Scientific American. 2021. *Sonic Science: The High-Frequency Hearing Test*. [online] Available at: <https://www.scientificamerican.com/article/bring-science-home-high-frequency-hearing/> [Accessed 25 July 2021].

Perhaps the most notable feature in this period of my music-making was a frequent desire to ignore the ears' embodied and empirical experience, and rely instead on the theoretical stability of musical structures as a primary compositional principal. Surely, this mindset evokes an inconvenient, counterproductive and perilous situation, which is very much like playing Zarathustra's three-metaphors-game backward. In this version of the story, a child who created a system, allowed the lion to use it to control the world, and eventually ended up with the camel becoming immobilized by the system's heavy shackles. Without a doubt, whoever experiences this would find it a struggle and unpleasant. Later it could even become a vicious circle. After acknowledging the dilemma, it did not take long for me to realize the issue stems from the composer-composition relationship and that I needed to find a new position for myself within my own work. This realization prompted thought into the nature of embodiment, and musical experience relative to the compositional process.

In addition to taking various positions within their work, the “distance” between a composer and the compositions produced is also variable. In the early 20th century, an important Chinese writer Zhang Ailing once argued that in terms of communication in literature, a novel is the shortest distance between the author and the text. Even the most intimate prose, however requires an attitude similar to that taken toward close friends, where one may be vulnerable, but must still always maintain a certain amount of distance. In some ways though, writing a novel does imply a forfeiture of intellectual privacy. Author’s forfeit this privacy not to be peered at, but rather to cast themselves artistically into a situation in which they must function somewhat like an actor, immersed in a role and also transforming it through their own experience.[18]

Surely, I agree that we should always be careful in seeking an appropriate position for ourselves during the creative process, however, I highly doubt if the role chosen must remain consistent throughout the duration of a given project. For instance, it's nearly impossible for me to remain in the first or third person throughout the composition process, as I value observation from far and mid-ranges as much as completely embodied involvement. I am more inclined to regard myself and my work as a closely related“ we”. This interaction is again an example in which a broader conceptual body “without organs” is interacting closely with a real body “with organs”. Concurrently, the synchronization of the real and conceptual bodies may also take on a mutual dialectical relationship akin to *Zhuang Zhou Dreams of Being a Butterfly.* [19]. According to these thoughts, I feel quite uncomfortable about the master-follower situation between me and my compositions. How about if compositions are deserts, and we are mountains? Then one may progress to a fundamental stage of being inclusive, complementary, and symbiotic with one's creative works. It creates opportunities for we could follow the natural trajectories of sounds materials. In my case, the willingness to reduce my desire for control over each moment in a composition certainly originated from our previous discussions regarding the intertwined dual nature embodied musical experiences. However, this reduction of control does not imply a lack of commitment in musical creation or an abdication of the composer's responsibility. On the contrary, the responsibility for decision-making is not reduced but increased. If one takes this summary of a composer's responsibilities as a premise, then revisits the candy installation *"Untitled"* by Félix González-Torres, one could almost be certain that the artist anticipated that any random, behaviors as long as they are non-harmful within such a setting, would not alter the artwork's characteristics. Rephrased, one could say that the success of this artwork is in the fact that the presence of concrete guidance lends it enough stability to be able to retain a relatively constant character in spite of its inherent flexibility. Indeed, the strategy is enlightening for composers seeking to develop effective communication methods with performers in contexts related to questions of structural design, notational choices, etc. The criterion for judging the effectiveness of a given musical method, in my opinion, is whether or not the method serves the purpose of engaging performers with relatively incontrovertible information without precisely manipulating all of the specific sonic parameters. Thus, throughout the process of creating three solo instrumental pieces for my dissertation, I was driven to investigate these kinds of methods and embark on creative and collaborative processes with three outstanding musicians as a platform for experimentation in this regard.

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[18] Chang, Eileen, and Ailing Zhang. *The Fall of the Pagoda*. Hong Kong University Press, 2010.

[19] Once ancient Chinese philosopher Zhuang Zhou dreamt to be a butterfly, however, when he woke up. He started questionting if it was himself who had dreamt he was a butterfly, or a butterfly dreaming that he was Zhuang Zhou

Chapter 3. Method

3.1 Monodrama and Five Categories of Solo Music Performances

My choice to compose solo instrumental pieces for my dissertation arose not simply out of concerns for the pandemic restrictions, or an interest in testing the advancements of various musical technologies. The choice was instead motivated primarily by an interest in the inherent characteristics of the solo music performance format. In my own inner world, the intimacy of solo music performance turns on a metaphorical spotlight that embraces a single musician who, in the moment of performance, serves as a medium for portraying a very individual musical embodiment. Throughout time, these individual embodiments, to some extent, can be viewed as a whole and create musical narratives.

In my opinion, however, the primary goal of narratives, in music is to achieve a specific musical continuity, which can nonetheless exist with and/or without storylines. Assuming that the possible continuities are mainly represented by organizing various musical behaviors chronologically, then grouping the musical behaviors according to certain collective purposes becomes crucial for achieving the goal. Because our collective goals are not limited to abstracted sonic achievements, we can also incorporate concrete descriptions of performative behaviors or practices. As a result of these organizing principles, I am confident that these three solo performances could result in a "de facto" monodrama, in spite of the absence of traditionally linear and representational “narrative” elements.

In viewing these works monodramas, I will often use theatrical ideas and terminology to discuss the motivations for my musical decisions in them. One example of this will be the persistent use of five categories of solo performance, which relate the musical situation to various kinds of monologue and soliloquy. These categories are based largely on questions of who the music is meant to communicate with in a given moment, and will be used as a means of deconstructing the kinds of interactions, musical and otherwise taking place in the works discussed.

The first of these categories is the realistic monologue *(M1),* in which the music is meant to communicate with real world figures. A simple example of this would be communicating directly with audiences during a performance. The second category is the imaginary monologue *(M2),* in which the music communicates with imaginary or metaphorical characters. In these cases, the target need not be limited to people, a scene, a situation, or a point in time, as long as it is logically self-consistent. The third category is the realistic soliloquy *(S1),* in which the music inwardly communicates with the soloist themselves as an individual, while in the fourth category, the imaginary soliloquy *(S2)*, the music communicates with an imagined role or situation in the performer's inner world. It is notable that the stability of this internal dialogue can be easily interrupted by external factors, and under these circumstances a soliloquy could transform into a monologue. Finally, the fifth category of performance is the object-oriented solo performance mode, in which the ongoing music communicates with pre-existing musical materials (I will refer to this category as *SRS,* which stands for *Self Reflected Solo*). These communications stem from particular compositional situations, which provide opportunities for performers to realize certain materials in performance.

Here we can see that one may begin to distinguish between monologues and soliloquies by determining whether the direction of communication is inward or outward. Although the first four categories are defined largely by their communication trajectories, the fifth category stays neutral and can interact with any of the other four modes listed above. Even though the *monologue* and *soliloquy* categories seem quite mutually exclusive on the surface, I will occasionally classify a set of musical behaviors with compound categories. The *S1/M2* pair, for example represents a mixed musical feature that synchronizes the realistic soliloquy and imaginary monologue. In practice, this might mean that, during the performance, the music is driven by a projected conversation with an imaginary "self", while also taking care to express the energy outwardly. As well as being used to describe momentary superimpositions of the *S1/M1* materials, this compound term could also be used to discuss seamless transformations between one of these categories and another in a relatively short period of time. This classification system for solo performance embodiments will be used throughout our analytical discussions, and it is primarily through this methodical standard of classification that I will dissect the three solo performances at hand. In doing this, I will propose evidence for each of my categorizations, drawing from notation practices, the nature of the collaborative process, and the philosophical or theoretical ideals driving a given work.

3.2 Solo Music with Multi-laminate Framework and Heterogeneity

In many ways, we can conceive of the entire compound solo performance body as a stationary, multi-laminate framework. The complexity of such a framework is an inevitable outcome of a situation in which a performer must engage with materials in "real time" while also engaging with the ideas of the composer, as well as the theoretically existent characteristics of the music itself as an abstract ideal. These components engage in interaction with one another in a variety of complex ways, although at the moment, all an observer would see is the performer's embodiment of these ideas as a sort of "snapshot" of these numerous interactions.

According to this useful premise, the performer's body (with and without organs),[20] could become a useful core medium for accepting, decoding, extrapolating, generating, and evaluating information about both metaphorical worlds and objective realities. However, in discussing the compound performance body and its function as a "core medium", one must not be overly optimistic, and should never overlook the challenges of maintaining a balanced operation between all the embodied components at work.

In my opinion, the compound body of a given solo music performance is generated by two distinct individuals, as well as their metaphorical significances internally and collaboratively. To make the most of these interactions, and establish productive areas of artistic overlap it is important to first establish comprehensive common ground between these two individuals. Even when working in this way, however, it may still not be possible to achieve an absolutely unified image without adjusting the primitive forms, theories and methods of every single component to optimize these interactions.

In music-making, the absolute unity of the creative components is not something I am particularly enamored of. On the contrary, I tend to believe that certain percentages of deviation and heterogeneity are, to some extent, the hallmarks of interesting works. Ideally, composing and collaborating on solo music creates a unique collaborative format in an intimate and mutually communicative environment. The solo format encourages the composer and performer to progressively establish an empathetic zone, an inclusive environment that supports both collaborators, allowing them to naturally appreciate and recognize each other's differences in interpreting musical information and realizing musical notations.

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[20] The performance body without organ indicates the conceptual performance body, which is close to performance body in one's mind. And the performance body with organ means the actual body with hands that holds the bow or mallets, or with the fingers press down the strings, or keys. etc.

Perhaps we can relate the composer and performer’s frames of mind to two colored translucent papers in blue and green with distinct edge shapes. We could further imagine that when these two pieces of paper overlap, they produce a color not belonging to either blue or green, but coming from the combination of blue and green -- Cyan. At the same time, the combined papers' new edge-shape is also a result of combining and/or compromising the edge shapes of the participating materials.

In addition, if we observe the two papers from the side, as long as they are not glued, the two translucent papers should still preserve their individual characters (Figure 6.) If we apply this visual metaphor back to sound analysis inside of a composition, we can see how it would be useful in discussing ideas like timbre segregation in particular. In these situations at least two sets of musical behaviors with distinct timbre contents are manifested simultaneously, with a listener being able to hear the distinctions between the two sets of musical behaviors without them mixing or masking one sound by another.

It is notable that this process does not always involve clean areas of overlap, and mutually agreed upon common ground. Situations sometimes arise in which a solo performer has a strong personal voice, and can “force” the solo composer to step outside of their comfort zone and reshape their musical territories.

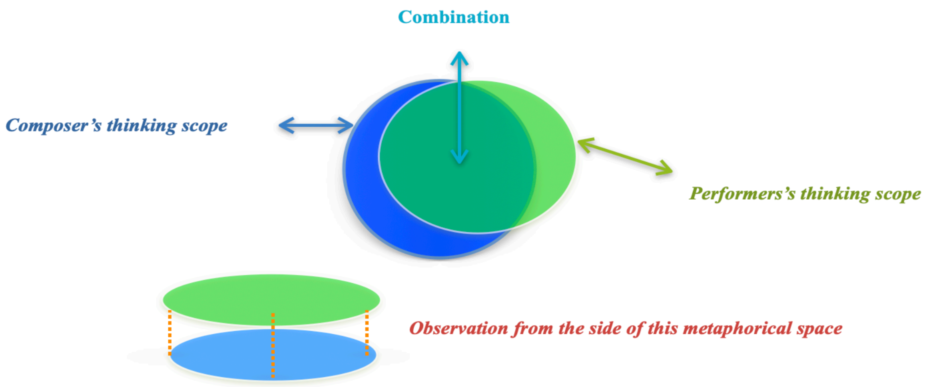
Combination
Composer's thinking scope
Performers's thinking scope
Observation from the side of this metaphorical space

Figure 6 - Metaphorical visualization of composer and performer's overlapping frames of mind

Even though I have become quite skeptical about whether a composer should too quickly abandon a large portion of what is familiar to them, I am profoundly appreciative for the forces, including those of resistance, which have required me to examine myself and reaffirm my actual musical intentions. This is also the key factor that makes me collaborate with specific people instead of working with nameless musical jobholders. Due to the unique body concept of each performer, these individuals will also "force" me to expand my compositional scope in various ways. Thus, the general territory of my musical language expands with increasing diversity as I continue to work with a variety of musicians. In recent years, I've gradually developed strategies for approaching the extraordinary opportunity to form collective intelligence with others through musical collaboration, without compromising my personal musical beliefs. **Figure 7** illustrates the fact that during the compositional progress, I generally pursue macro and micro developments simultaneously, allowing new inputs to reshape the situation, while retaining a profound recognition of the original plan. This method creates symbiotic forms in which the superposition and juxtaposition of music realizations by composer and performer also occur in a synchronous manner. Therefore, along with the analysis of monodrama categories in my three solo works, I will also discuss the ways in which external factors, caused morphological transformations in the music, as well as the ways in which these pieces pursued three distinct forms of sustainable heterogeneity.

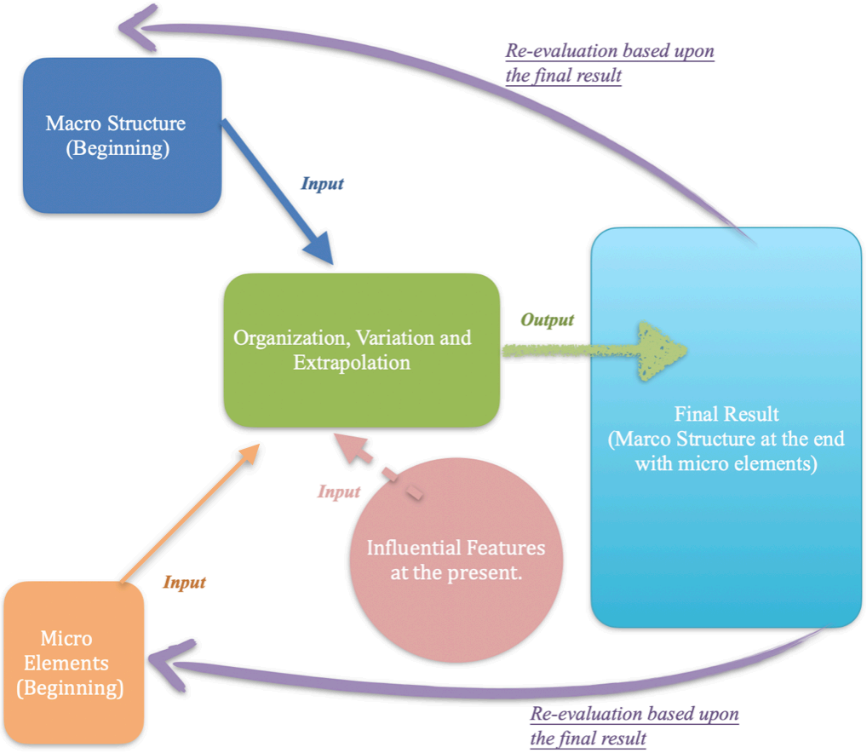
Re-evaluation based upon the final result
Macro Structure (Beginning)
Input
Organization, Variation and Extrapolation
Output
Final Result (Marco Structure at the end with micro elements)
Input
Influential Features at the present.
Input
Micro Elements (Beginning)
Re-evaluation based upon the final result

Figure 7 - Tiange Zhou Composition Workflow and Strategy

Chapter 4. Monodrama at Present - *Bridge*[21]

4.1 Behind the Structure: From Present to Present

"All distances in time and space are shrinking. [...] Yet the frantic abolition of all distances brings no nearness; for nearness does not consist in shortness of distance. What is least remote from us in point of distance, by virtue of its picture on film or its sound on radio, can remain far from us. What is incalculably far from us in point of distance can be near to us. [...] Everything gets lumped together into uniform distance-less. [...] What is it that unsettles and thus terrifies? It shows itself and hides itself in the way in which everything presences, namely, in the fact that despite all conquest of distances the nearness of things remains absent."

— *Martin Heidegger, Poetry, Language, Thought* [22]

Establishing an appropriate structure, for me, is often the most time-consuming part of the entire composition process, because I find that the quality of the structure determines the possibilities available within the infinite closeness of a specific musical time and space. It is important to note, however, that when I speak of structure I do not refer to the absolutely strict compositional systems which I have criticized in earlier chapters. Rather than being rigid, a trustworthy structure can properly delineate the multiple relationships in a work, as well as the scope of the vertical and horizontal continuities within a piece of music. As a consequence, it can provide the necessary support for a successful representation of various artistic ideas on both compositional and performative levels.

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[21] In this chapter, *Bridge* = the whole solo flute work. ***bridge*** = the specifically connected concept of this piece, and bridge = the standard idea of this noun.

[22] Heidegger, Martin. "Poetry, language, thought." (1971).

Music, in my opinion, offers the best field for deduction and presentation of thoughts when compared to other artistic approaches due to the unique nature of the time dimension it contains. Composing solo music causes such a form of individualized thinking to collide and merge with the concept of individual embodiment. It provides some unique opportunities to explore and define my individual roles in private and public spaces during my life-changing time of music-making. Therefore, before I built the structure of *Bridge*, I had to ensure that it would not be overly rigid or stubborn, and could be affected by other interruptive elements as necessary. Striving for this type of structure allows for the music to reflect the typical state of human life, which is constantly unfolding, and requires rapid response and constant adjustment.

For this reason, in *Bridge*, I attempted to use a musical structure as a way to merge two distinct concepts of time, (fluid vs. solid, concrete vs. abstract, etc.) into a comprehensive identity comparable to the interweaving between ***entities***[23] and ***cells.***[24] Similarly, the ***bridge*** in this work represents a complex series of cross-temporal interactions exploring a situation where both past and future are often squeezed into the present time and space together. If both ***entities*** and ***cells*** are present, in such a situation, their coexistence will likely based upon an embedded structure. **(Figure 8**)

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[23] ***entity or entities*** = a pre-established musical score which has its self-consistent continuity.

[24] ***cell or cells*** = independent musical units for structure improvisations. For example the three appearances of ***cell A*** could be different from each other. More improvisations associated with ***cell A*** are permitted when it occurs for second or third time in the piece.

Cells will be incorporated into the ***entity-domain***-and to interrupt its original continuity. In the ***cell-domain,*** the solo player will be in charge of setting the tempo and density of transformation, as well as initiating and concluding improvisations, and connecting the ***cells*** into the ***entity-domain.***

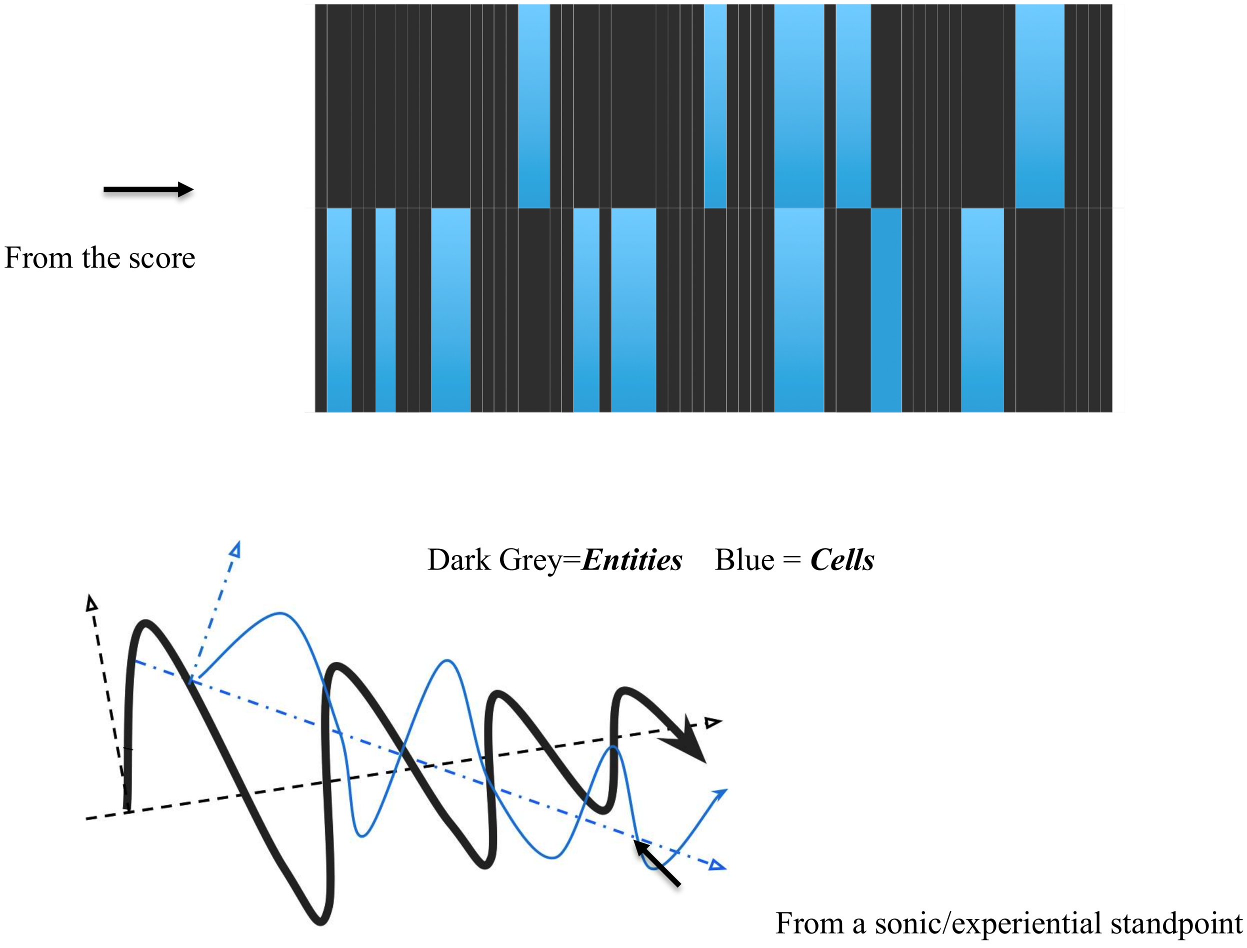
From the score
Dark Grey=***Entities*** Blue = ***Cells***
From a sonic/experiential standpoint

Figure 8 - Basic Logic of the embedded structures in *Bridge*

This structure creates a foundation, within which ***cells*** from a “static time” can exist in flowing time, and interrupt the original continuity of ***entities*** constantly. Listeners will likely notice several on/off /on moments, in which the performer seems to be communicating, and then retreat into internal, self-focussed practices, in a way that distinguishes these areas from one another. One of the reasons for these behaviors is that the performance energy in the ***cell-domain*** is designed to be inward—[soliloquy *(S1 or S2)],* whereas performance energy in the ***entity-domain*** is outward—[monologue (*M1 or M2*)], a fact which serves to accentuate the multilayered nature of the listening experience. Additionally, each ***cell*** unit will be played more than one time during the performance. Rather than repeating the musical materials according to absolute instructions, however, the performer will create a number of improvisations that are related to but distinct from one another, which will be played instead. **(Figure 9)** In other words, no ***cell*** unit will ever be performed exactly like the written score instructions. In **Figure 9**, *M1* and *M2* stand for the monologues in presented in the ***entity-domain***. The *M2* materials are shown in black, while th*e M1* materials are in light grey, while dark grey represents moments in which *M1and M2* co-exist. The small colored rectangles in the middle sections stand for soliloquies in the ***cell-domain***, which are divided into upper and lower rows in order to distinguish their functionalities as *S1* or *S2.* Blue boxes represent cell A, while red ones stand for cell B, green for cell C, the purple for cell D, cyan for cell E, and orange for cell F. When the same cell is recalled on the score, it will be represented by a different shade of the same color, in order to show the variations in these materials arising from the improvisatory nature of the ***cell domain***. Each colored rectangle lasts 1/3 of the duration of the system in which it appears in the score. This highly regular component of the work's organization reaffirms my initial goal to differentiate the material as a stationary, abstracted concept from its actual realization in space and time. Doing this surely will diversify the types of interferences present, and consequentially increase the types of permutations occurring between different solo music characters. This wide variety of interactions may aid in making the structure more audible.

At this point, one may notice that no ***bridges*** appear in the structural diagrams shown, and perhaps be concerned that I am veering off-topic. Indeed, ***bridges*** do occur in the space between “***entities”,*** and ***“cells”***. However as is the case with the space between the beach and the ocean, the *bridge* here exists via a set of behaviors, but is not directly visible on the score or audible in the recording. Even though the music’s starting point and end results eloquently establish the ***bridge's*** existence, it seems nonetheless to be hiding in a “negative” space where it cannot be observed directly.

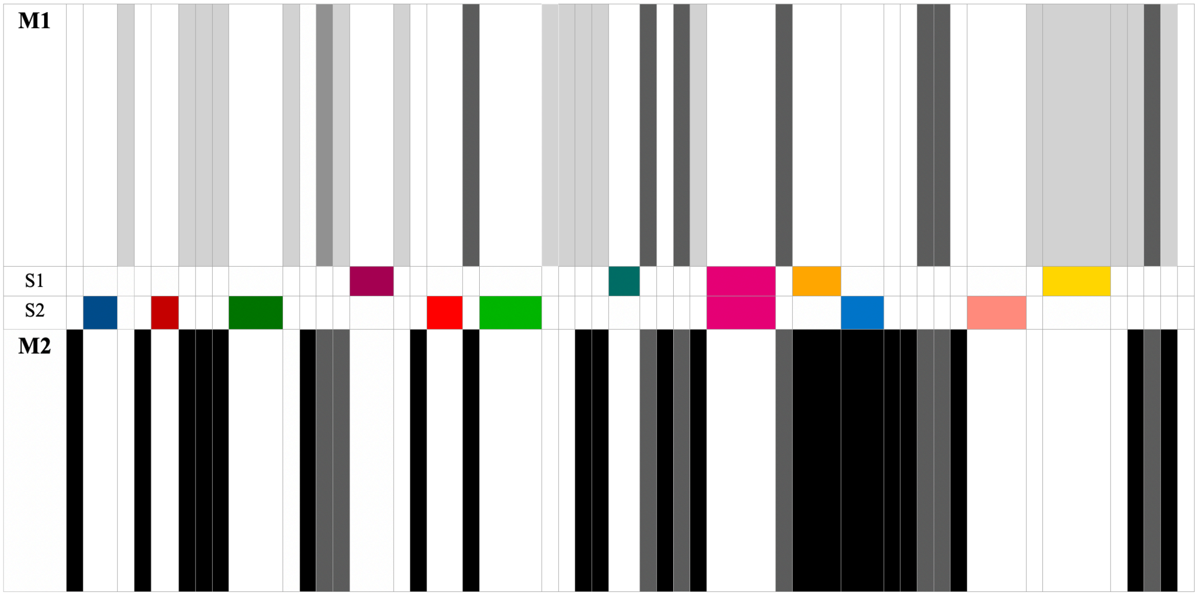

Figure 9 - Structure of musical events in *Bridge.*

Regarding negative space, I feel it necessary to mention a concept that has had a profound effect on me — 間, which is pronounced *Jian* in Chinese or *Ma* in Japanese. This concept essentially indicates an "interval" between two (or more) spatial or temporal entities or events, although it can refer to a number of related concepts, such as space, spacing, room gap, black, time, timing, or opening, among other things. *Ma* exists via bridging, deconstructing, or connecting worlds across a variety of barriers.[25]

In addition to recognizing the concept's significant influence on traditional Chinese and Japanese arts, such as *Noh* and *Kunqu*, my fascination with it tends to derive from its application in the field of contemporary architecture. Kengo Kuma, one of my favorite Japanese architects, extends the concept of *Ma* to a theory of negative architecture (**負ける建築**). This theory emphasizes a diminution of desire in an architectural impression that is diametrically opposed to victorious or winning design (referring to odd-looking, eye-catching, business-oriented, and height-oriented architecture).[26] From my perspective, it also represents the value of being responsible in a neutral or low key way, by acting as as a platform, or as a bridge. If we apply this paradigm to ***Bridge***, the carrier responsible for supporting various situations is no longer the architecture; instead, it becomes the notion of a composite body made up of the performer and the instrument.

4.2 Plane, Line and Point

Given that the score serves as a foundation for an embedded structure, the implementation of a functioning ***bridge*** also necessitates the use of an appropriate score and notation system that can naturally support the discourse of deconstructing boundaries, while establishing a reliable communication from the composer's initial idea to the performer's later processes of decision making. (**Figure 10.**)

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[25] Pilgrim, Richard B. "Intervals (" Ma") in space and time: foundations for a religio-aesthetic paradigm in Japan." *History of Religions* 25, no. 3 (1986): 255-277.

[26] Lon Y Law, "The Death of Desire towards Architecture," Medium (Medium, March 7, 2019), https://medium.com/@lonylaw/the-death-of-desire-towards-architecture-85ec81de5349.

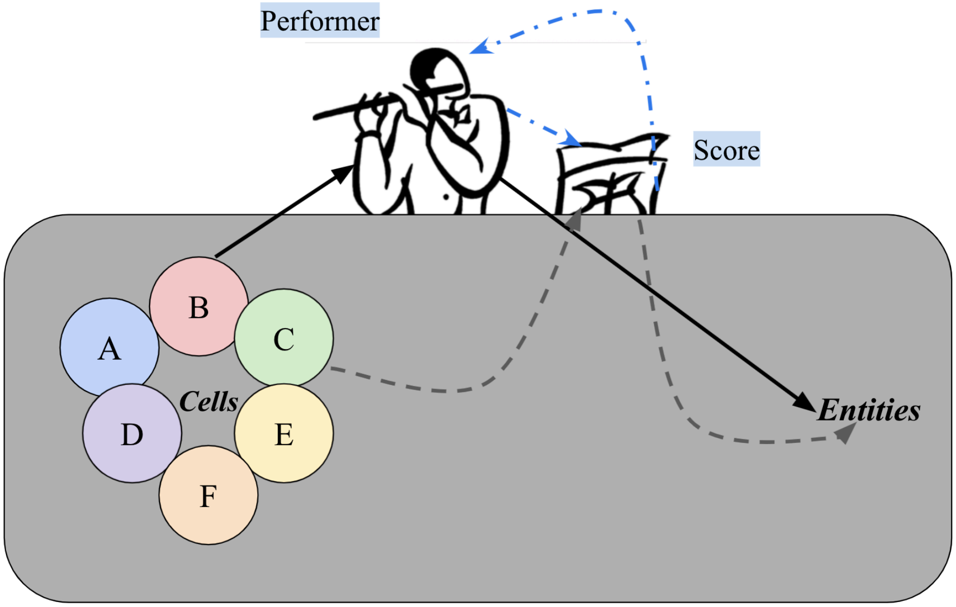

Figure 10 - ***Bridge*** Composite body notion made up of the performer and the instrument

In the score for ***Bridge,*** I purposefully separated the ***cells*** from the ***entity*** in the notation, placing them on a different page, and choosing distinguishing font styles. I also chose not to leave space for the specific duration of each ***cell*** unit on the ***entity*** page, to assist in creating the impression that the ***cells*** are truly being forcibly embedded into the ***entity domain***. **(Figure 11**)

This method is somewhat unique, and is not one that I have used commonly in my other compositions.

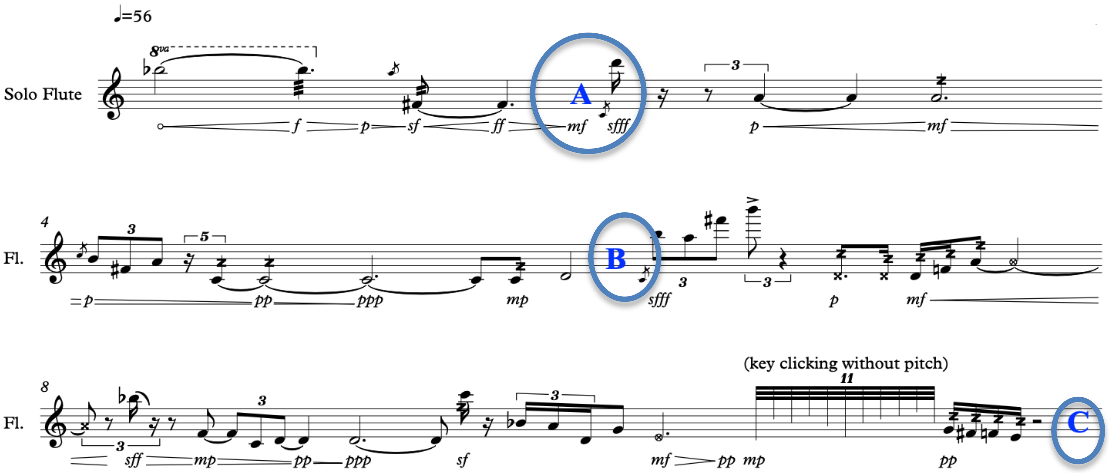

Figure 11. ***Cells*** *and embodied* ***Entities*** in the Score of *Bridge*

The benefit of using these visually “squashed” insertions is that the performer will hopefully reflect on their function as a ***bridge*** through music selection and judgment based more heavily on illustrative elements, and visual impressions, rather than relying too heavily on the instructions established by the composer. The coexistence of the worlds in and outside the boundaries is heterogeneous, meaning that the bridge connecting these worlds must be malleable. This characteristic is crucial to the success of the entire composition, and has strongly affected my methods of sound unit creation, as well as my demanding standards for the piece's ideal performer. As I have mentioned in previous chapters, composing for a solo instrument, and composing for a specific solo performer are significantly different experiences. As much as possible, I choose to work in the latter situation, and love to use a given performer’s personal character as a significant parameter in shaping the nature of the piece. The acoustic ingredients in this solo flute piece *Bridge* are heavily influenced by Franz Kafka's short story *The Bridge*[27]*,* as well as the performer for whom it was written, Wilfrido Terrazas, a brilliant performer and mentor throughout my Ph.D journey. What Terrazas, Kafka, and I have in common is the fact that we have been in situations where at least two cultures and identities are overlapping, interweaving, and conflicting. In many circumstances, whether active or passive, these realities often place us in ***"bridge"*** situations.

Kafka's *The Bridge* serves as the main reference for the materials in the ***entity domain,*** but not so much for those in the ***cell domain.*** Due to the soliloquy nature of the ***cell*** units, the musical elements contain much more intuitive and personal sonic imaginings. This does not, however, imply that the ***entity domain*** is a programmatic, one-to-one sound painting that follows the chronological order of Kafka's text. On the contrary, I chose the most meaningful phrases for me, and rearranged their appearance order according to the previous assumptions and definitions of the structure. (**Figure 12**)[28] Some of the phrases have been symbolically repeated multiple times. For example, the phrase " *So I lay and waited, I could only wait*" is articulated musically four times, while the phrase "*Without falling, no bridge, once spanned can cease to be a bridge"* has been realized five times. **(Figure 13)** These symbolic musical materials are purposefully repeated in *Bridge* in order to establish a form of stability based on momentary auditory experiences and memory, while also providing a stable point of reference against which to compare other materials. This disparity in stability results in the superposition of several quandaries, and calls to mind again the people who embody bridge-like functions in their day-today lives, and who may be seeking certain stabilities in the face of various cross-boundary confusions.

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[27] "Franz Kafka (Ft. Edwin Muir (trans.) & WILLA) – The Bridge," Genius, 1 https://genius.com/Franz-kafka-the-bridge-annotated) p.1

[28] *Ibid.*

> *I was stiff and cold, I was a bridge, I lay over a ravine.* **My toes on one side, my fingers clutching the other, I had clamped myself fast into the crumbling clay.** *The tails of my coat fluttered at my sides. Far below brawled the icy trout stream.* **No tourist strayed to this impassable height, the bridge was not yet traced on any map. So I lay and waited; I could only wait. Without falling, no bridge, once spanned, can cease to be a bridge.**
>
> *It was toward evening one day—was it the first, was it the thousandth?* **I cannot tell— my thoughts were always in confusion and perpetually moving in a circle.** *It was toward evening in summer, the roar of the stream had grown deeper, when I heard the sound of a human step! To me, to me.* **Straighten yourself, bridge, make ready, railless beams, to hold up the passenger entrusted to you. If his steps are uncertain, steady them unobtrusively, but if he stumbles show what you are made of and like a mountain god hurl him across to land.**
>
> **He came, he tapped me with the iron point of his stick, then he lifted my coattails with it and put them in order upon me. He plunged the point of his stick into my bushy hair and let it lie there for a long time, forgetting me no doubt while he wildly gazed around him.** *But then—I was just following him in thought over mountain and valley—he jumped with both feet on the middle of my body.* **I shuddered with wild pain, not knowing what was happening. Who was it? A child? A dream? A wayfarer? A suicide? A tempter? A destroyer?** *And I turned so as to see him. A bridge to turn around! I had not yet turned quiet around when I already began to fall, I fell and in a moment I was torn and transpierced by the sharp rocks which had always gazed up at me so peacefully from the rushing water.*

Figure 12 - Excerpt from Kafka's *The Bridge*[30]

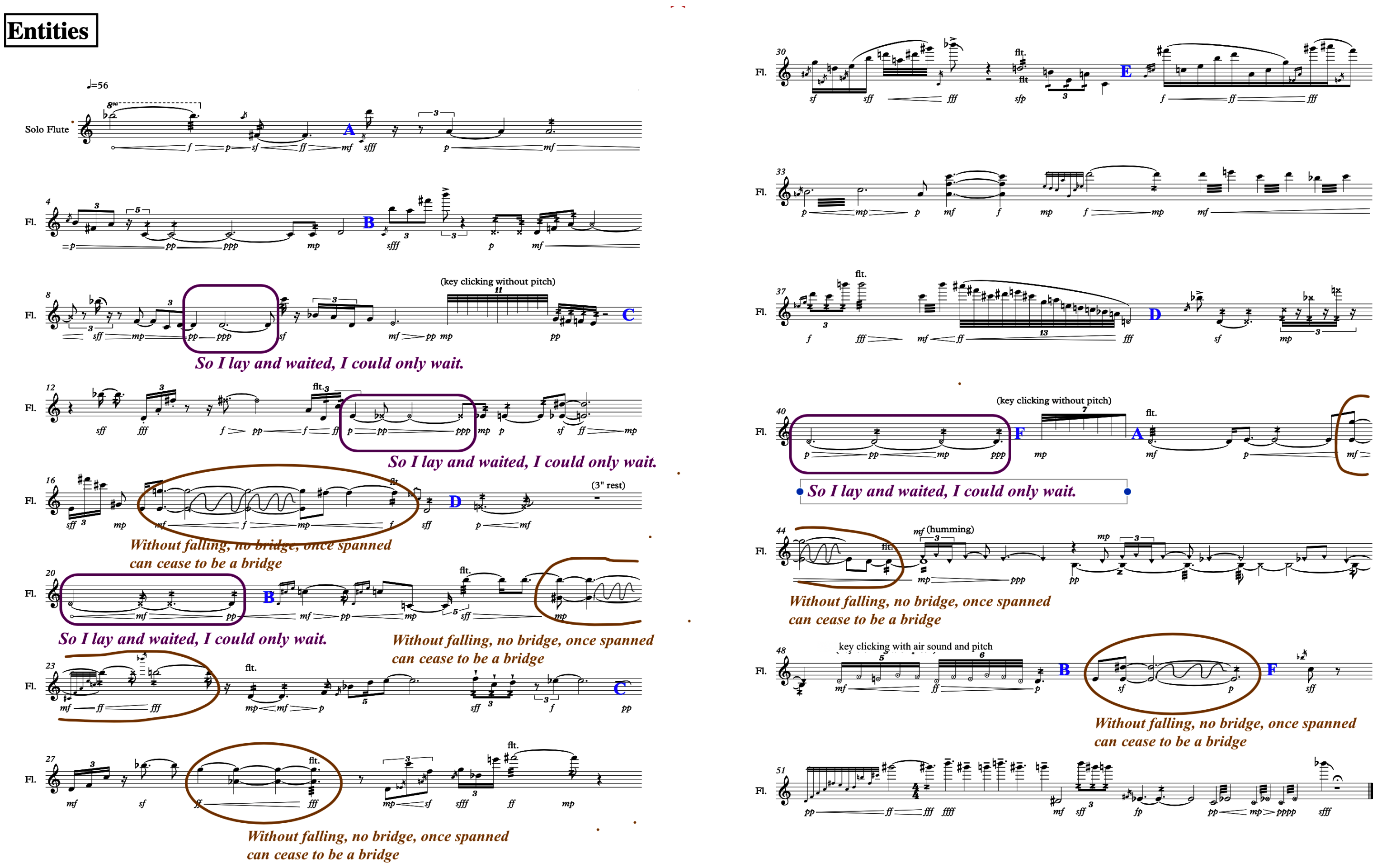
Entities
♩=56
Solo Flute
Fl.
A
B
C
D
E
F
flt.
(key clicking without pitch)
(3" rest)
(humming)
key clicking with air sound and pitch
So I lay and waited, I could only wait.
So I lay and waited, I could only wait.
So I lay and waited, I could only wait.
So I lay and waited, I could only wait.
Without falling, no bridge, once spanned can cease to be a bridge
Without falling, no bridge, once spanned can cease to be a bridge
Without falling, no bridge, once spanned can cease to be a bridge
Without falling, no bridge, once spanned can cease to be a bridge
Without falling, no bridge, once spanned can cease to be a bridge

Figure 13 - Musical realizations for two repeated text phrases in *Bridge*

Fortunately, I could work with a creative musician like Terrazas, who embodies the many imaginary sounds in *Bridge* quite successfully, bringing them to reality with very strong personal character. Due to a lack of bodily experience, composers who primary play piano, like me, sometimes may find it challenging to design subtle breath transformations in wind instruments. Therefore, this is a parameter who's execution I left largely up to the performer, relying on their expertise and musicality. In recording sessions, I realized the performer has added some beautiful delays between pitches, delays that are inconsistent in duration, and make the musical phrases less symmetrical. I sincerely appreciate this "asynchronized" realization, since by not being perfectly faithful to the score, Terrazas has actually produced a performance more faithful to what the musical phrases are indicating. Below are two representative examples, found on system-9 and system-15, where one could easily observe the differences in music continuity between the notation and sound realization. (**Figure 14**) The phrase in system 9 is supposed to be the sound painting of " *I could not tell…*"[29] while the phrase in system 15 stands for " *I shuddered with wild pain …. A destroy?"*[30] Indeed, this performance has elevated the musicality of *Bridge* to new levels, by focusing on the sonic realization as a *de facto* monodrama as well as a musical performance. The performer's extensive artistic knowledge and performance experience have significantly influenced the final outcome.

Interpretive elements like there are, without a doubt, one of the main ways in which Terrazas was able to bring these musical materials to life. Meanwhile, this method of composing for a specific soloist has proven to be beneficial for me in other ways. It has encouraged democratic communications that have the potential to erode the traditional hierarchical power dynamics often associated with composer-performer interactions. During these more democratic conversations, the performer could more naturally participate in the composition process as a creative figure. Moreover, working in this way may help composers feel as if they can stop pretending to know everything about instruments and to sincerely share in the creative process imagination and consideration that went into their score. As a result, both sides may push each other a little more than they are accustomed to and together produce quote successful results.

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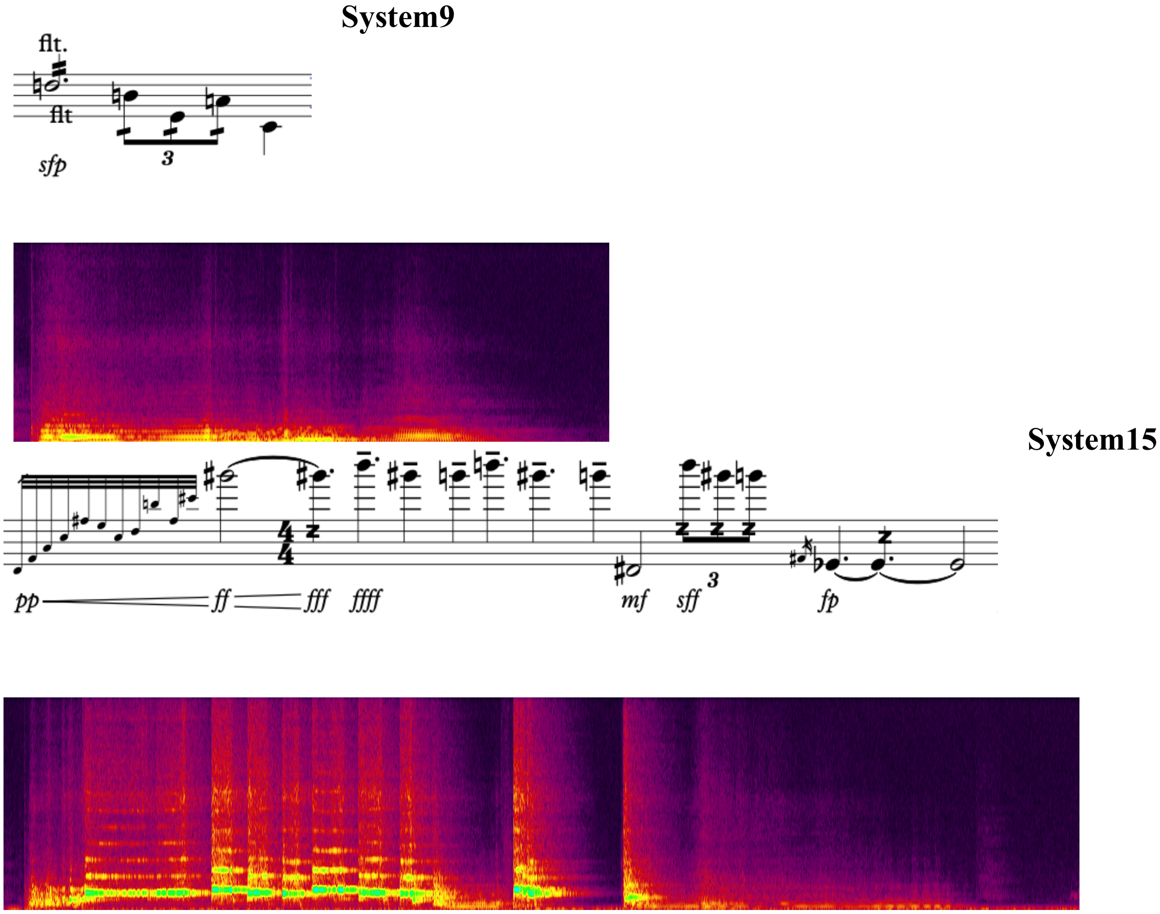
[29] Franz Kafka (Ft. Edwin Muir (trans.) & WILLA) – The Bridge,

[30] *Ibid.*


System9

System15

Figure 14 - Two pairs of comparisons between scores and performance sonograms in *Bridge*

Chapter 5. Monodrama with the Past - *Rough Shell*

5.1 Behind the Structure: Resonating with the Past

To begin with, *Rough Shell* is a challenging work. In the previous chapter, in which various heterogeneous co-existing situations have been revealed by the extension of the bridge body, in *Rough Shell,* one has to assemble these metaphorical heterogeneities again into one collective scenario. This is undertaken to evaluate, for oneself, through the glasses of memories and past hypotheses of a present that has never happened. As a matter of fact, this is also the first time I've ever used music to dwell deeply on regrettable experiences that I wish could have turned out differently. Additionally, I am actively seeking forgiveness or some form of compromise.

This musical piece, for me, serves as a memory container in a metaphorical environment where a maze of mirrors embraces the **"I"** within and reflects the slides of "my" past (**Figure 15**). The phrase "***Rough mirrors***" was intended to metaphorically correlate innate human memory-attenuation and its occasional unfaithfulness to the past, as a ***rough mirror*** will reflect some aspects of reality while ignoring or distorting others.[31] I have described below (Figure 16), seven relationships between different "time-space stages" which are at play in *Rough Shell.* These stages illustrate my view that the present is an integrated version of the past and that one's impression of a given moment is not a perfect reflection of reality at that moment.

---

[31] Similar to the ***entities*** and ***cells*** in *Bridge,* here ***rough mirrors*** represents the major metaphorical platforms/stages that represent memories. ***"I"*** stands for the idea of self in past or present time. The present ***"I"*** is emphasized by the performing body.

The most important interaction between these stages is that between the present ***"I"*** and its reflections in the ***rough mirror***. However, it should be noted that the present "I" does not directly represent the present reality of oneself, but one's perception of it, and thus cannot stand for a character's objective totality. Similarly, the reality of the past cannot impact the present directly, but only through its reflections. This means that the ***rough mirrors*** show past reflections in present discourse, and thus are not limited to reflecting the present ***"I"***, but contain both past and present realities.

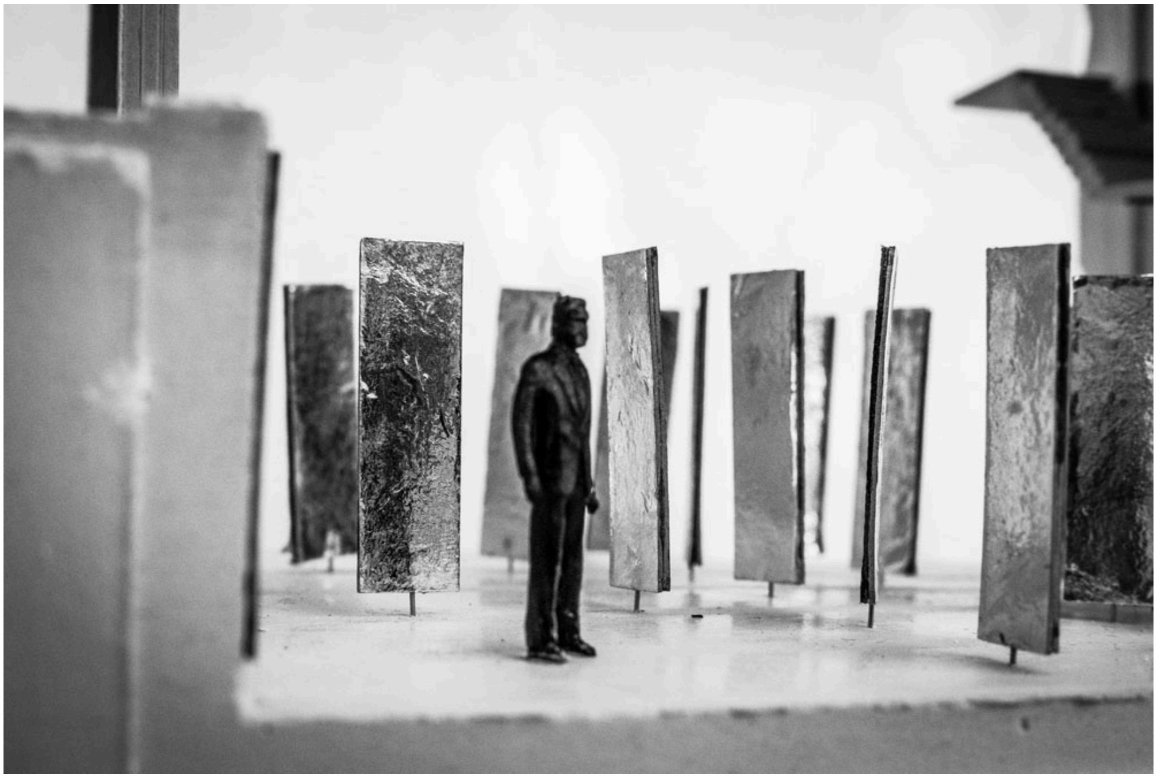


Figure 15 A visual representation of being in the *Rough Shell- A Man in a Maze of Mirrors.*[32]

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[32] Scottkirby2.files.wordpress.com. 2021. *A man in the maze of mirrors*. [online] Available at: <https://scottkirby2.files.wordpress.com/2013/08/floor-view-2.jpg?w=722&h=&zoom=2> [Accessed 1 August 2021].

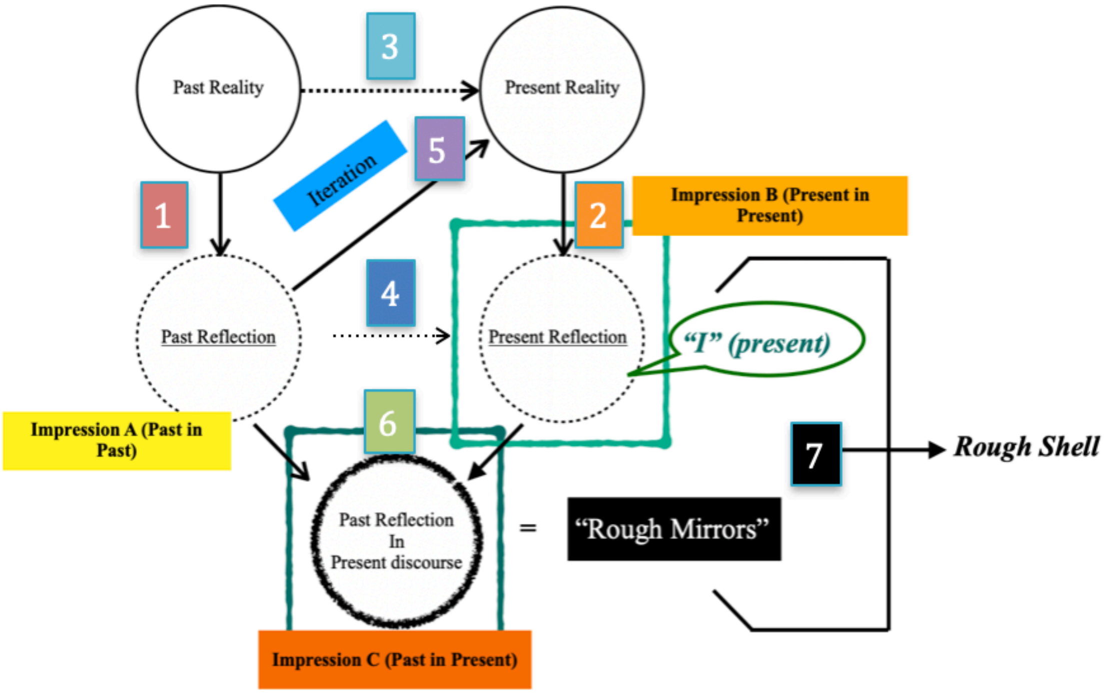
Past Reality
3
Present Reality
Iteration
5
1
2
Impression B (Present in Present)
4
Past Reflection
Present Reflection
"I" (present)
Impression A (Past in Past)
6
7
Rough Shell
Past Reflection In Present discourse
=
"Rough Mirrors"
Impression C (Past in Present)

Figure 16 - A schematic rendition of the structure in relational trajectories between various time-space domains in *Rough Shell.*

In this visual representation of the work's structural logic, the term *reflection* does not conceptually equal *impression*. The term reflection is used here to refer to a specific behavior, rather than the outcomes of one's experience. In the context of *Rough Shell*, an impression is a sense of experience gained by comparing the various reflections of the past to one's present reality in such a way as to have some impact in the future. In this way, impressions can also be conceptualized as representations of memory.

In organizing the piece, there were three main types of impressions that were influential in establishing structure (**Figure 16).** Impression *A* is produced by pair No.1, which is a past reflection on the past reality. Because this material is intrinsically linked to the past, it can never perfectly represent in the present time domain, only its impressions can be carried through time.

Impression *B* is generated by connection No.2, which represents one's present reflection upon the present reality. This specific interaction is very similar to the impression discussed above in relation to the structure of *Bridge*. However, rather than embedded architecture, this reflection of the current reality creates a symmetrically mirrored world. It is only this mirror image that can be observed, rather than the reality itself, directly. Impression *C* represents the most significant type of impression, and is formed through connection No. 6 by extrapolating from both past and present reflections. Impression *C* then, can be understood as the composite existence of the above three categories, although the characteristics of impression *A* will be felt largely indirectly, through its influence on impression *B*. Thus there will be at least two transformational steps, through which we create an impression of reality in our mind. The first step is our reflection on present, and/or past realities. This reflection is represented graphically in **Figure 17**, in which a given reality is taken as the larger, dark blue rectangle, with our reflection on that reality being represented by the lighter blue rectangle with rounded edges. We can see that this reflection does not match reality exactly, but it is a similar size and shape. The second transformational step involves creating a personal impression, which will be adjusted by us depending on our perspectives in the given moment.

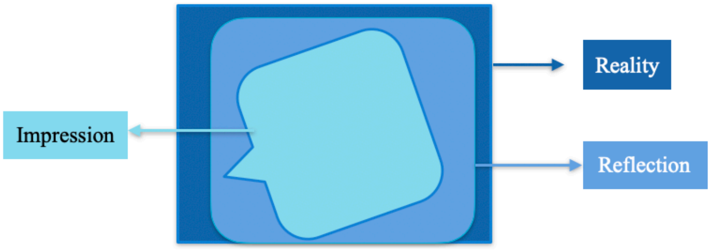

Figure 17 - A visual representation of the interactions between reality, and our reflections and impressions of it

Since *Rough Shell* is primarily composed of impressions B and C, it was critical to identify the ratios in which these materials occur relative to each other, while also taking note of differences, and areas of common ground between them. Undergoing this process was vital to organizing materials during the compositional process. Certainly, from an auditory standpoint, the materials being reflected in the ***rough mirror*** should be distinct from the prevailing ***“I”*** material, while still being traceable as a distorted interpretation of it. We can begin to examine the balance of materials by assigning simple weighted point values to each of the interactions shown in **Figure 16.** We can assume “past reality” to be the starting point of our trajectory, with a point value of zero. From there each direct influence on the future (represented by a solid arrow) will be worth two points, and each indirect influence (dashed arrow) will be worth one. The course taken in performing impression B will involve paths totaling seven points, while the path through impression C is worth twelve points. This shows the ways in which impression C is an extension of impression B, involving a greater variety of material interactions. **Figure 18** shows the 7:12 ratio between these materials, but it is important to understand that they overlap and interact in a variety of ways, farther than through the simple overlay implied by this graphic. In these situations impressions *B* and *C* keep their identities while sharing a portion of common ground which allows them to be traced to their mutual music sources.

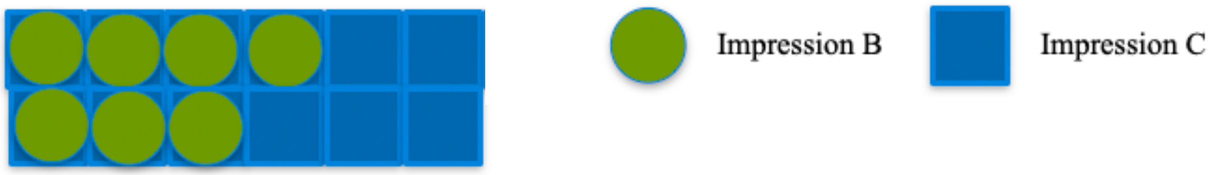

Figure 18 - Step ratio between impression B and C based upon the emerging trajectories toward specific situations in *Rough Shell*

It is, indeed, not easy to maintain a stable continuity in such a piece. The concepts behind the music create a pair of co-existences between impression B and impression C. One status often responds to another through non-direct cause-and-effect chains, for example, between the past reality and present reality or between past reflection and present reflection **(Figure 16)**. As a result, one needs to be careful while making multi-parameter transformations. For example, if the subtle changes of timbre and dynamic is the auditory essence from one musical phrase to another, then the other parameters such as pitch or rhythm may better be modulated in more smooth trajectories. This strategy is consistent with a metaphorical super-positioning which will allow the listeners to focus on refined sonic metamorphosis.

Generally speaking, the ***rough mirror*** and the ***present "I"*** do not appear in one on one pairs. Oftentimes, more than one mirror will be reflecting the same ***"I"*** moment simultaneously, and the reflections in these mirrors additionally display a variety of past and present materials and interactions. On an emotional level, this process could be likened to one of personal self-reflection, in which thoughts about the past and its pivotal moments can push one to the edge of regret and pain. In these situations, regret can also be a persistent interruption to the smooth modulation of one's present life.

To bring this type of concept to life in music, composers first have to be patient in their search for appropriate sound materials and event orders, which is especially important if the composition includes embodiments of strong personal emotions that may trigger a slew of temporal sound objects. Meanwhile, the ability of the performer to listen to, and reflect upon their own performance is critical to ensuring a successful presentation. For this reason, the composer should establish effective performing, listening, and responding procedures for the performer to interact with. Because productive procedures necessitate thoughtful composer-performer communication, the materials will be communicated by an effective musical score that can support the hybrid needs of both collaborators. In *Rough Shell,* for example, because reflection involves taking a critical look at musical activities, the notation should not minimize in-the-moment reflections triggered by the performer's body or intuitively abuse the improvisation method without defining the range of improvisational techniques or questioning its necessity and feasibility.

Indeed, creating a vital notation system for an entire piece is not an easy task. To be more specific, the notation present in this score has been revised at least five times. I very much appreciate the performer of this piece, Mark Dresser, a great musician, as well as an important mentor and collaborator. While working on the piece, he has been generously sharing effective techniques for developing potent notations and utilizing the score as a communication tool to dialogue with performers, including methods for making precise instruction for improvisations. Ultimately, there are times when we must exercise a certain amount of persistence in realizing faithfully our creative endeavors, but this tenacity does not imply blind reliance on preconceived systems. Frequently, we must exercise caution when dealing with intriguing but not rigorously controlled musical materials. Furthermore, one should not consider excessive demand to be in and of itself a source of embarrassment.

5.2 Line, Point, and Plain

What would be an appropriate sound which can stand for regret? When I was composing *Rough Shell*, I kept hearing in my mind, a *Kazak* folk song called *Black Lark t*hat I had learned as a child. It originates in my parents' hometown—*Xinjiang,* a multicultural region in northwestern part of China. In the song's lyrics, a mourning black skylark is hovering and weeping in the canyon, lamenting the loss of its companion, and the music exudes an overwhelming sense of exile. As one who has never lived in a place I could call my "hometown" I relate to these lyrics, and often feel a certain form of exile myself. At times, I believe I share the black lark's sorrow, but at others I feel even more strongly that I have become a black lark hovering in the canyon, or stranger yet the other lark who has already fallen from the sky. These sorts of thoughts and associations were in mind while I was working on *Rough* Shell. Regret and exile, in my opinion, are mutually reinforcing experiences, occasionally functioning as two sides of the same coin. For me then, the sound of regret, consisted of a long sustained sound akin to the hovering motion of a Lark, played at the lowest pitch available to a given instrument. It is this figure which constitutes the first sounds produced in *Rough Shell,* with an elongated low *E* from the double bass. The timbre of this pitch evolves over time through use of various changes in bow pressure and position on the open *E* string.

Recalling that this work could be thought of as a "sonic mirror maze" it is important to note that there will be reflections of the ***"I"*** present at all times. Let us now examine several musical reflections of the above described long *E* note, which are present only on the first and second pages of the score. After the first prolonged *E* occurs in the ***"I"*** domain, the following reflective musical events initially include or surround this fundamental pitch. We can see that this *E* again appears, this time as a half-note in measure eight. In this case, the reflection is highly similar to the sustained sound of the first *E,* although in this case the timbre has been slightly altered through the use of vibrato. At the end of page two, we can see that the *flautando* harmonics involve rhythmic diminution of the preceding D-E-D# triplet, this time with a less clear, mid or backstage presentation of the low *E* motif. Finally, on the last system of page two, we can see that the 4th, 6th, 7th, and, 8th partials of the *E* string are accentuated to establish harmonic content similar to an *E7* chord. Thus, this figure maintains the temporal stability of the *E*-centric reflections, while showing the ways in which materials are reflected and re-cast.

(**Figure 19**)

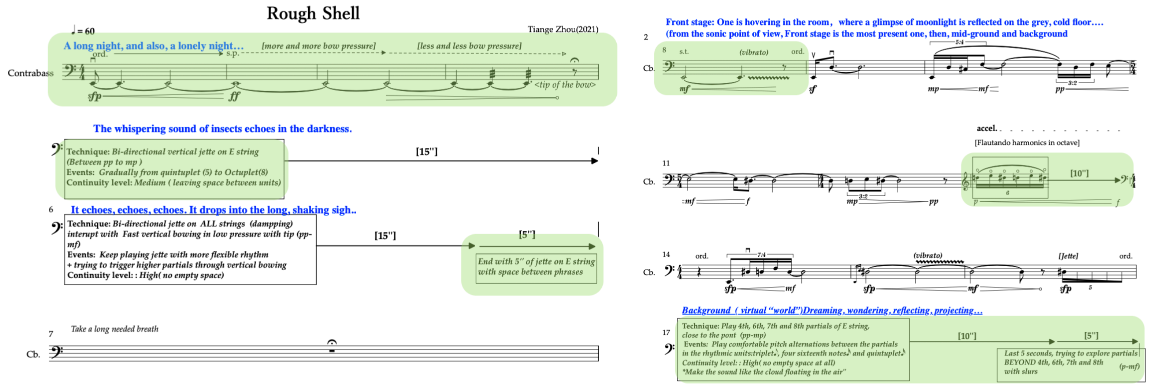
Rough Shell
♩= 60
Tiange Zhou(2021)
A long night, and also, a lonely night…
[more and more bow pressure]
[less and less bow pressure]
ord.
s.p.
Contrabass
sfp
ff
<tip of the bow>
The whispering sound of insects echoes in the darkness.
Technique: Bi-directional vertical jette on E string (Between pp to mp)
Events: Gradually from quintuplet (5) to Octuplet(8)
Continuity level: Medium (leaving space between units)
[15"]
6
It echoes, echoes, echoes. It drops into the long, shaking sigh..
Technique: Bi-directional jette on ALL strings (dampping) interupt with Fast vertical bowing in low pressure with tip (pp-mf)
Events: Keep playing jette with more flexible rhythm + trying to trigger higher partials through vertical bowing
Continuity level: : High(no empty space)
[15"]
[5"]
End with 5" of jette on E string with space between phrases
7
Take a long needed breath
Cb.
Front stage: One is hovering in the room, where a glimpse of moonlight is reflected on the grey, cold floor….
(from the sonic point of view, Front stage is the most present one, then, mid-ground and background
2
8
s.t.
(vibrato)
ord.
Cb.
mf
sf
5:4
mp
mf
3:2
pp
accel.
[Flautando harmonics in octave]
11
Cb.
mf
f
3:2
mp
pp
6
[10"]
p
f
14
ord.
7:4
(vibrato)
[Jette]
ord.
Cb.
sfp
mf
sfp
mf
sfp
5
Background (virtual "world")Dreaming, wondering, reflecting, projecting…
17
Technique: Play 4th, 6th, 7th and 8th partials of E string, close to the pont (pp-mp)
Events: Play comfortable pitch alternations between the partials in the rhythmic units:triplet♪, four sixteenth notes♪ and quintuplet♪
Continuity level: : High(no empty space at all)
*Make the sound like the cloud floating in the air"
[10"]
[5"]
Last 5 seconds, trying to explore partials BEYOND 4th, 6th, 7th and 8th with slurs
(p-mf)

Figure 19 - Reflections toward elongated E in Page 1-2 of *Rough Shell*

Apart from enabling multiple reflections on a single sound event, the mirror maze metaphor evokes another phenomenon. In *Rough Shell*, the roles of sound generator, receiver, and reflector/developer are all unified into one performance body. Thus, in this piece, there will be no deliberate outward communication (i.e monologues). According to the solo performance categories outlined in chapter three, *Rough Shell*, is perhaps best described by two major categories, fall into two major categories: the *S1 (soliloquy 1)* and *S2 (soliloquy 2)*. While the music delivery in this piece is primarily internal and self-focused, audiences may still empathetically relate to the sentiments existing within this internal realm. In this case, feelings of regret are quite common among many people, with a study of how emotions are expressed in everyday language, finding that regret was the second most frequently mentioned emotion.[33] Apart from this, however, a listener could just as well experience the performance by observing the work's artistic qualities as they exist in the external realm.

It is worth noting that in *Rough Shell,* the main categories *S1 (soliloquy 1)* and *S2 (soliloquy 2)* may be more precisely sub-divided. Although, I have previously stated that there is no deliberate monologue in this piece. However, the sound activity in the foreground may cause an impression similar to that of a monologue. To distinguish between different categories, I decided to mark these soliloquies in the foreground as *S1(f) or S2(f)*, and the active soliloquies in the background as *S1(b) and S2(b)*. Similarly, the mid-ground soliloquies are labeled *S1(m) and S2(m).* The following table indicates the ways in which the various soliloquy categories are transformations from one category to the next. Each system of the score will be divided into oriented during the performance and displays the complete musical structure of the three colored units. **(Figure 20.)**

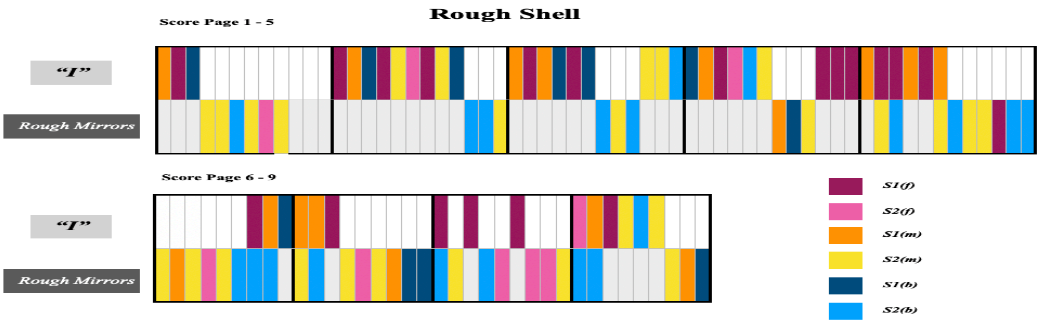

Figure 20 - *Rough Shell* Table of Structure.

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[33] Zeelenberg, Marcel, Wilco W. Van Dijk, Antony SR Manstead, and Joopvan der Pligt. "The experience of regret and disappointment." *Cognition & Emotion* 12, no. 2 (1998): 221-230.

On page five of the score for *Rough Shell* musical events begin to appear in both the present ***"I"*** and ***rough mirror*** territories. It must be emphasized that this phenomenon is not the same as the embedded structures present in *Bridge.* In *Rough Shell,* I have rather distinguished multiple voices through the use of specific timbres, and spatial orientations of a given musical event. This stands in contrast to the contrapuntal practices of earlier composers like Bach, and in general, I am opposed to the idea that counterpoint is the only way to produce multiple voices on a solo instrument.

For example, in the first system of page 5, the *32nd* and 16th note phrases (**Figure 21**, yellow and blue rectangles on the first system) are designed to be sonically less present than the 8th and half note figures next to them. At the end of page *5's* second system, the *pizzicati* are rather present (**Figure 21** left page, second system, purple rectangle), while the *E* and *B-flat* double-stop tends to be placed more toward mid and background. Furthermore, on the third system of page 6, when compared to the *A pizzicati,* the *E#* and *B double-stop* is in a higher register and has a louder dynamic, making it more presentable. Suppose we decide that the *A pizzicati* in the first measure of the system is in the background. In that case, the *A pizzicati i*n the next measure should be consistent with this assumption, and the *D pizzicato* could be interpreted as a mid-ground note from a different voice. **(Figure. 21).** This passage shows how variations in timbre and dynamics are used to create a sense of physical space, allowing a single instrumentalist to imply multiple lines simultaneously and create a more diverse listening experience.

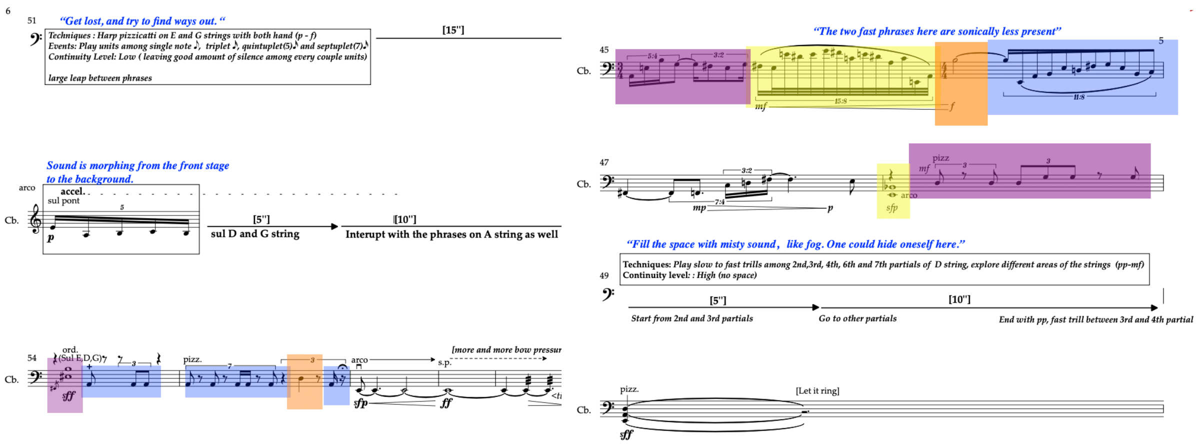
6
51
“Get lost, and try to find ways out. “
Techniques : Harp pizzicatti on E and G strings with both hand (p - f)
Events: Play units among single note ♪, triplet ♪, quintuplet(5)♪ and septuplet(7)♪
Continuity Level: Low (leaving good amount of silence among every couple units)
large leap between phrases
[15"]
Sound is morphing from the front stage to the background.
arco
accel.
sul pont
Cb.
p
[5"]
sul D and G string
[10"]
Interupt with the phrases on A string as well
54
ord.
(Sul E,D,G)
pizz.
arco
s.p.
[more and more bow pressur
sff
sfp
ff
“The two fast phrases here are sonically less present”
45
Cb.
5:4
3:2
15:8
11:8
mf
f
5
47
Cb.
3:2
7:4
mp
p
sfp
arco
pizz
mf
3
“Fill the space with misty sound, like fog. One could hide oneself here.”
Techniques: Play slow to fast trills among 2nd,3rd, 4th, 6th and 7th partials of D string, explore different areas of the strings (pp-mf)
Continuity level: : High (no space)
49
[5"]
[10"]
Start from 2nd and 3rd partials
Go to other partials
End with pp, fast trill between 3rd and 4th partial
pizz.
[Let it ring]
Cb.
sff

Figure 21 - *Rough Shell* pages 5-6 showing multiple voices within a single line.

The presence of multiple voices within a single instrumental line does, in fact, complicate the “impression B” listening experience. According to a recent study, the intensity of regret one feels is related to our perspectives on the past relative to the perceived successes of our present, and our projected successes for the future.[34] As a result, when “impression B” is accompanied by multi-directional reflections that embody "impressions C," the overall picture invariably results in an inconclusive emotion that makes one strongly wish past decisions had been different. This indefinable quality is, in my opinion, similar to the natural human experience of regret and its related consequences.

My collaboration with Dresser on *Rough Shell* is particularly notable because of its heterogeneity. When I consulted him about double bass tremolos, I will never forget that he immediately demonstrated sixteen distinct timbres in rapid succession. As I have underlined in the earlier chapters, great performers push their collaborative composers to step out of their comfort and grow the capacity of their musical vocabularies. Right now, this is precisely the case in this instance. I have to acknowledge that my imagination for the double bass sound is significantly less than Dresser's, as is my comprehension of the flute and percussion compared to Terrazas and Jones. This unbalanced situation, caused by an unequal quantity and quality of knowledge, provides a critical opportunity for me to expand my previous abilities, and for these reasons, I valued the opportunity to work with Dresser from the beginning of the project.

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[34] Roese, Neal J., and Amy Summerville. "What we regret most... and why." *Personality and Social Psychology Bulletin* 31, no. 9 (2005): 1273-1285.

Perhaps the most challenging aspect of composing *Rough Shell* was creating instructions for the improvised elements. This fact was largely due to three related issues, which arose during the collaborative process. The first was the above mentioned difficulty in defining specific sound characteristics through notation. A second, related issue was difficulty in establishing movement trajectories that are idiomatic to the performance, while also being attainable for performers without prior experience with embodiment practices such as this. The last issue was that although I frequently attempted to convey ideas using visual materials, in practice this was not feasible in all situations. As a result of these sorts of expressive and notational issues the two "soloists"— composer and performer, frequently failed to reach an agreement regarding the music at first, an issue which sometimes reduced the efficiency of the collaboration. The collaborative process, therefore necessitated targeted implementation of solutions, as well as continuous reflection upon their efficacy.

With Dresser's support, we attempted a few methods to increase the project's productivity. First, I took a step back from the notation, and instead of attempting to force out notation for all of the improvised materials, I began to work on the ***"I"*** materials, which are marked in conventional notation. Between these materials, I left empty bars to be used as potential for “reflections” upon this material. **(Figure 22)** This method had the advantage of rapidly establishing an appropriately complex framework of materials to serve as a starting point for the work. Afterwards, we worked together for several very meaningful zoom sessions, where Dresser improvised around my rough description of some imagined sounds. He always generously demonstrated dozens of possible musical embodiments of one idea, affording me many options to choose from. We would then figure out together the most precise way to describe and notate the event in a way that would help him to restore it later.

These experiments significantly enhanced my sonic imagination for the bass, increasing the palate of tools at our disposal. Despite our efforts however, Dresser and I quickly realized that both of us would occasionally forget specific sound instances which we had discovered in previous meetings. To overcome these problems, we began to video-record our experiments in subsequent sessions, allowing us to revisit successes in greater detail at a later time. At this point, I revisited my attempts to compose improvisational materials to represent the reflection stages, however we again found that the notation was either too open or too narrow to allow for these ideas to come across musically.

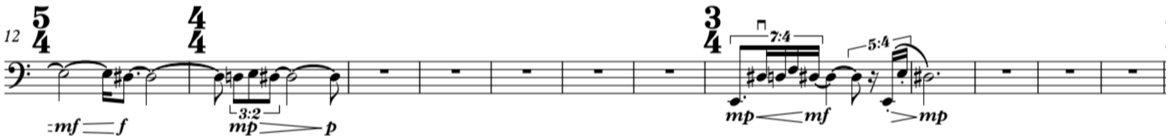

Figure 22 - Excerpt from an early draft of the score for *Rough Shell.*

After several communications sessions between Dresser and myself, we decided to define the nature of five musical parameters in each improvisatory section, allowing these materials to function as a framework, around which the performer could make additional decisions in the moment of performance.

The five parameters we chose to define were:

1. Duration: Defines the duration of each musical phrase or score system.
2. Technique: This parameter indicates very particular performance technique/ articulations, including the ones added later during each phrase's performance.
3. Dynamics: This parameter indicates the dynamic range of each phrase.
4. Events: The score indicates which musical events need to emerge with precise rhythmic patterns.
5. Continuity (High-mid-low): This parameter indicates how much silent space may be left during the performance of a given set of materials.

In addition to these constants, the specific pitches or harmonics used are occasionally indicated, and some other further instructions are given after certain phrases. (**Figure 23.**)

Last but not least, Dresser has encouraged me to depict the emotional journey of *Rough Shell* and provide him with some prompts for listening to the piece while performing it. This is an idea that has always interested me, and I decided that through text instructions I could convey this information, while also differentiating between sounds that occur in the foreground, mid-ground, and background of a given texture. All of these decisions together allowed us to produce a score that does not reduce in-the-moment reflections prompted by the performer's body or intuitively abuse the improvisation method without questioning its necessity and practicality. Indeed, it produces a quasi-free environment on numerous levels that will not diverge too radically from a set of pre-established possibilities.

By all means, this fact may be regarded as one of the most significant gains of our collaborative work. As I make my way through *Rough Shell*'s metaphorical mirror maze, I feel somewhat relieved. While working on this piece, I accepted the present or future reality that I may have made some inadequate choices in the past and would carry some regrets for the remainder of my years. Rather than ignoring or forgetting the memories, I have decided to embrace them into the maze of mirrors within me on numerous quiet or isolated nights.

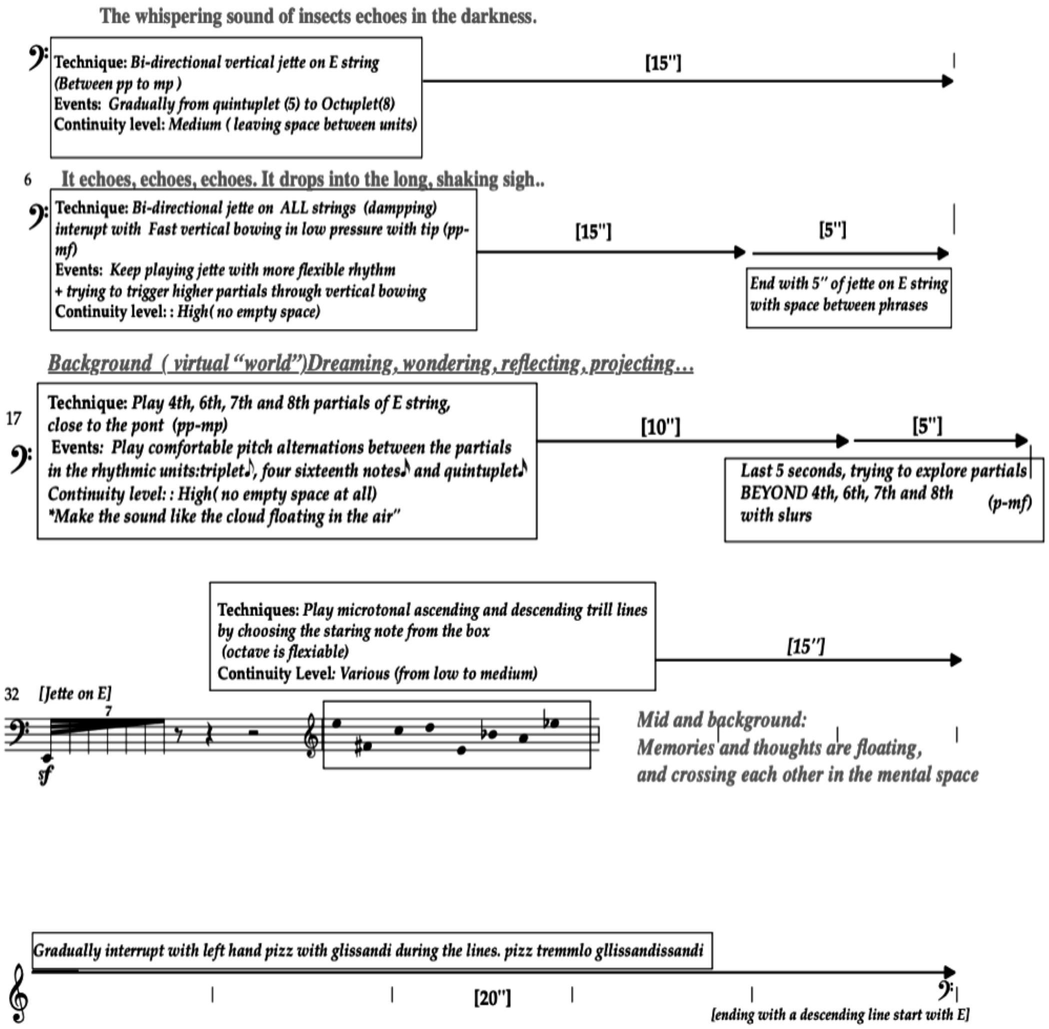
The whispering sound of insects echoes in the darkness.
Technique: Bi-directional vertical jette on E string
(Between pp to mp)
Events: Gradually from quintuplet (5) to Octuplet(8)
Continuity level: Medium (leaving space between units)
[15'']
6
It echoes, echoes, echoes. It drops into the long, shaking sigh..
Technique: Bi-directional jette on ALL strings (dampping)
interupt with Fast vertical bowing in low pressure with tip (pp-mf)
Events: Keep playing jette with more flexible rhythm
+ trying to trigger higher partials through vertical bowing
Continuity level: : High(no empty space)
[15'']
[5'']
End with 5'' of jette on E string
with space between phrases
Background (virtual "world")Dreaming, wondering, reflecting, projecting…
17
Technique: Play 4th, 6th, 7th and 8th partials of E string,
close to the pont (pp-mp)
Events: Play comfortable pitch alternations between the partials
in the rhythmic units:triplet, four sixteenth notes and quintuplet
Continuity level: : High(no empty space at all)
*Make the sound like the cloud floating in the air"
[10'']
[5'']
Last 5 seconds, trying to explore partials
BEYOND 4th, 6th, 7th and 8th
with slurs
(p-mf)
Techniques: Play microtonal ascending and descending trill lines
by choosing the staring note from the box
(octave is flexiable)
Continuity Level: Various (from low to medium)
[15'']
32
[Jette on E]
7
sf
Mid and background:
Memories and thoughts are floating,
and crossing each other in the mental space
Gradually interrupt with left hand pizz with glissandi during the lines. pizz tremmlo gllissandissandi
[20'']
[ending with a descending line start with E]

Figure 23 - Some score examples of instructive improvisation in *Rough Shell.*

Chapter 6. Monodrama to the near Future - *PUPA*[35]

6.1 Behind the Structure: Metamorphosis

Pupa is a stage of metamorphosis in holometabolous insects that occurs before imago and immediately follows the embryonic and larval phases. Chrysalides, the butterfly pupa, can live for several weeks, months, or even years in that state. Typically, a pupa is developed in concealed locations, such as behind a branch or amid the leaves, with the still outer appearance of a pupa often giving little indication of the processes unfolding inside. Humans too are often undergoing significant transformations which may not be visible beneath a calm exterior. One may emerge from their cocoon and become a butterfly or perish beneath its protective cover. Like the sealed box for Schrödinger's cat, *Pupa* creates an immediate future undetermined but brimming with possibilities.

Indeed, this scenario is uncannily similar to my feelings regarding my own condition, as to some extent, I have reached a crossroads in my life. Ten years ago it is doubtful that I would have had the courage to take some of the risks I am now less inclined to shy away from. This being said, I must also admit the difficulty in making confident judgments about the suitability of my decisions ten years ago while standing now in my present stage. Certainly, now is the time to be ambitious while also feeling a little embarrassed. I began [then] to define my identity and intended way of life, although I was [then] unsure of the implications of such individual identity and value [now] tendencies in the coming days.

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[35] When *PUPA* is capitalized and in *italic,* it refers in particular to the title for this percussion piece. The lower cased ***bolt italic*** later indicates specific stages of *PUPA.*

The near-future cannot exist in isolation from the present and the past, even though these time periods may be delineated theoretically. Similarly, in this piece, past, present and future are inextricably linked through the passive metamorphosis I have experienced, across these time periods. Although these time periods are described in detail within *PUPA,* and their relationships to one another emphasized, it is not necessary to experience them in chronological order. On the contrary, their meanings arise by comparing each time-domain with the epitome of time, a total version of the three time-periods's heterogeneous co-existence. **(Figure 24.)**

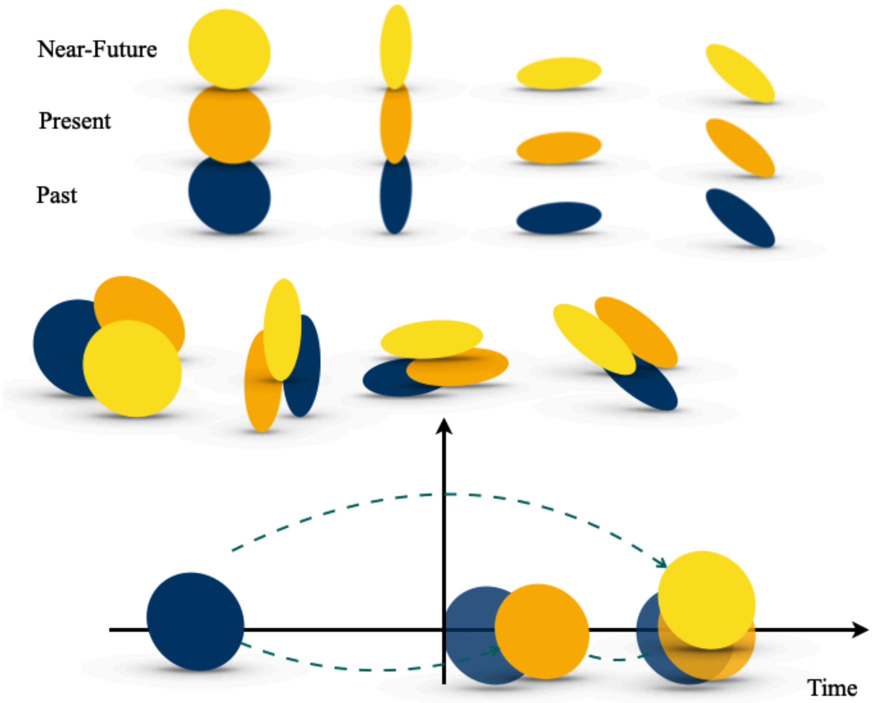

Figure 24 - Generalized three-phases time collages.

The structure of *PUPA* is divided into three main phases: ***pre-pupa*** (mm1-97)***, in-pupa***,(mm98-167) and ***out-of-pupa/ pupa exit****. (*mm168 to 216) It has to be clear that ***pre-***

pupa and ***pupa exit*** are not comparable to larva and imago, since larva and imago phases belong to the macrostructure of the entire metamorphic process of a holometabolous insect, while in my work the terms ***pre-pupa*** and ***out-of-pupa*** describe the musical sections slightly preceding and following the very middle phase – ***in-pupa.*** These outer phrases both have an intimate connection with and are derived from the ***in-pupa*** materials. As a segment of a longer life trajectory, my work possesses neither a real beginning or end, since the materials never quite emerge from their pupa fully transformed, and similarly do not begin as an alien "insect". This quality gives the music a sense of vulnerability, since the ultimate "resolution" of the transformational situation is not depicted.

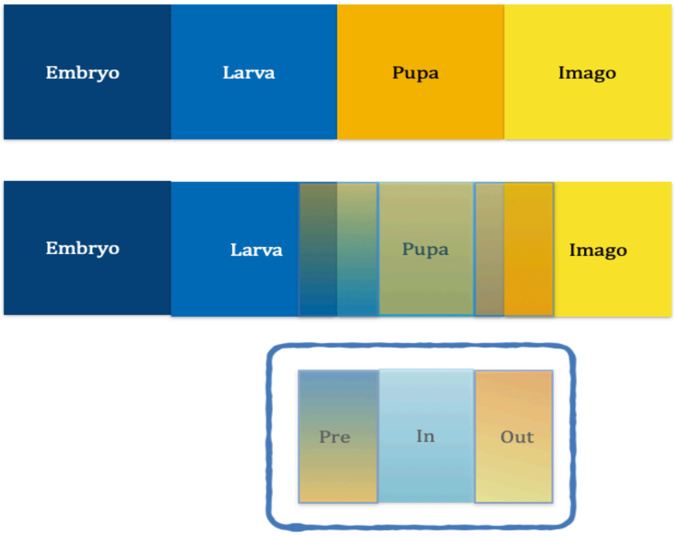

Figure 25 - A micro-form of *pre-pupa, in-pupa and out-of-pupa* inside of the macro-form metamorphosis.

The concepts at work in *PUPA* are consistent with the values of *Bridge* and *Rough Shell,* along with my overall compositional mind-map. Human perceptions and value judgments, I believe, are primarily based on relative relationships. Alternatively, they could be understood as an inanimate object in an "empty form"[36] and devoid of any particular characteristics. I doubt, however, that anything can possess eternal qualities without being compared to something else. In contrast to terms like transition, variability, or development, metamorphosis, to my understanding, refers to the transformation of one thing into another thing, caused by unexpected forces. If we accept that humans' judgments are frequently contingent on comparisons with available references, then it follows that to estimate the progress of a metamorphic procedure is also to make relative evaluations. Through these comparative evaluations for example, one can assess the metamorphosis process undergone by thing X by observing its characteristics from various perspectives. This strategy establishes an external force, alongside the internal forces of thing X's transformation, which eventually turn thing X into thing Y. It decomposes the original identity into the given environment and reforms itself into different forms and functions.

(Figure 26.)

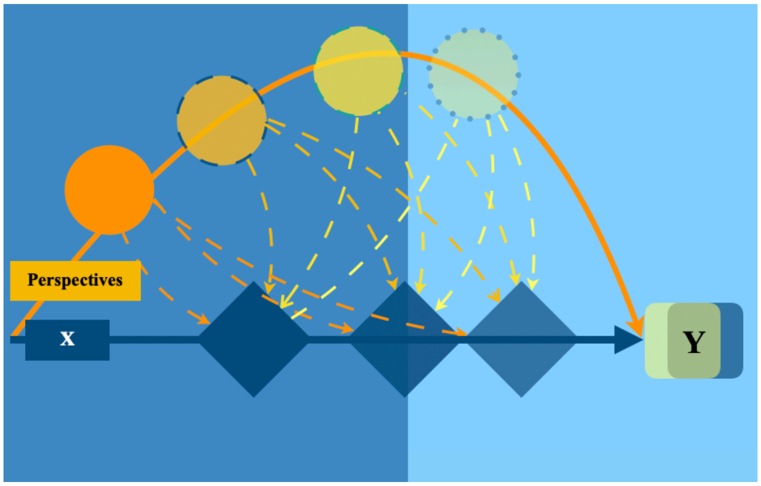

Figure 26 - A possible metamorphosis which combined perspective modulation and X-a under the change of the given environment.

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[36] I am inspired by Deleuze "Empty form of time", which is against the eternal time idea of Plato. However, I have extended the idea of empty form to generalized, objectively oriented concepts.

6.2 Plane, Point and Line

In *PUPA*, monodrama is difficult to categorize into monologues or soliloquies. In comparison to *Bridge* and *Rough Shell, PUPA* is more of a solo concerto for a percussionist and themselves, a situation in which one percussionist must act both as a soloist, and the accompanying ensemble. Indeed, the music in *PUPA* is characteristically personal. As mentioned above, the structure is analogous to my current life status, which is fraught with instabilities, and the narrative behind the three phases has been impacted by this fact.

Generally speaking, initially, in the ***pre-pupa*** phase, the music attempts to delineate an individual's character when he or she is alone with themselves or in a related environment. In the following ***in-pupa*** phase, an individual has encountered strange surroundings, and there is a coexistence or juxtaposition between themselves and the environment. Later on, in the ***pupa exit*** phase, the environment embraces the individual voice and embeds the individual's musical character into a larger framework. This process involves the unique musical personality originated from the ***pre-pupa*** phase being incorporated into a larger overall sound-world. (**Figure 27**) As a result, the identity of the ***pre-pupa*** material will be rapidly reduced, before being infused into the heterogeneous totality, to be perceived as something different from its previous existence. For these reasons, extreme caution must be exercised to ensure that, while the composition is still in its early stage, sufficient space is left for future development. To meet this requirement, several major approaches have been taken in regards to parameters like orchestration, tempo and rhythm, density and continuity.

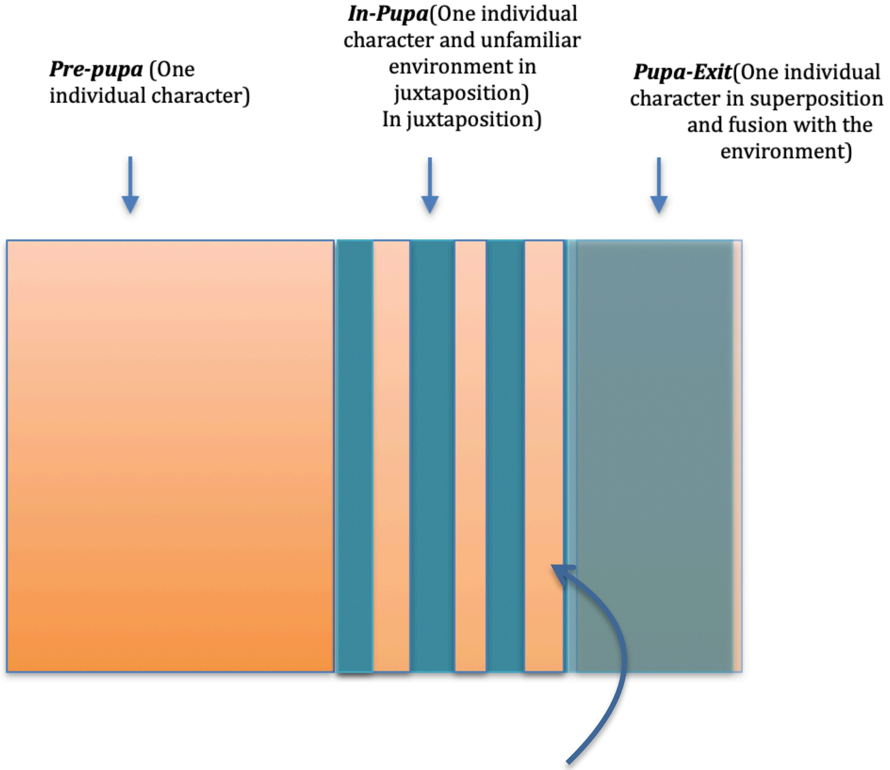

Pre-pupa (One individual character)
In-Pupa(One individual character and unfamiliar environment in juxtaposition) In juxtaposition)
Pupa-Exit(One individual character in superposition and fusion with the environment)

Figure 27 - The overall relationships between various musical characteristics in *PUPA*

In the ***pre-pupa*** phase, for example, only about half of the instruments are used by the performer. Indeed, alongside the symbolic woodblock phrase and the grounded bass-drum single beats, crotale tremolos serve as a timbre motif in this section of music. Two bongos and a snare-drum are quickly added to the ensemble, with these instruments retaining certain familiar musical features of the woodblocks. A gong at the end of the ***pre-pupa*** phase serves to augment the bass drum timbre, and signal the transition to a new section. **(Figure. 28)** From the perspective of tempo and rhythm, the music in the ***pre-pupa*** phase generally presents the feel of freedom and flexibility without a consistently absolute time signature. The tempo in this phase, set at quarter note equals 60, tends to make the musical events feel fluid and as if they were based loosely on timings rather than explicitly on given beats.

If we investigate the ***pre-pupa*** phase's transformation from mm.1-13, we will see that there is at a rather low degree of continuity, with relatively brief musical units and plenty of silence in between. The first long phrase with multiple instruments appears on page 3 m.15, with materials hinting at m.12 and m.13, which will continue to be developed as the work progresses. **(Figure 29)** One example of this development occurs in m.88, where the bass drum progresses from a series of single, low notes, to a timbre more fully integrated into the surrounding phrase. **(Figure 30)** This kind of compositional approach tends to generate many self-similar musical elements in this phase. This method is also reflected in the changing durations and intensity of the crotale parts, as well as the varied spacing of the bass drum hits.

Instruments	***Pre-pupa***	***In pupa***	***Out of pupa/ pupa exit）***
Crotales	x	x (less)	x (even less)
5 Woodblocks	x	x	x
2 Bongos	x	x	x
1 Snare Drum	x	x	x
4 Tom-toms		x	x
1 Bass Drum	x	x	x
2 Cymbals		x	x
1 Gong	x(at the end of this phase)	x	x

Figure 28 - The instrumentation of the three phases of *PUPA*

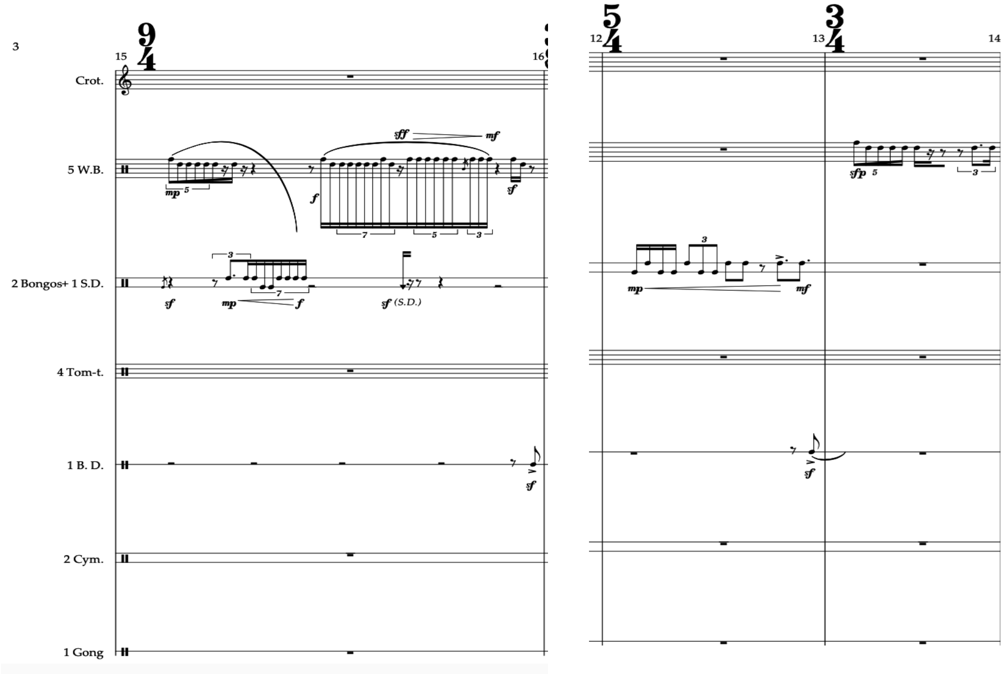

3
15
9/4
16
12
5/4
13
3/4
14
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
mp
sff
mf
f
sf
(S.D.)
sfp
7
5
3

Figure 29 - Measure 15 and measures 12-13 from the score to *PUPA*

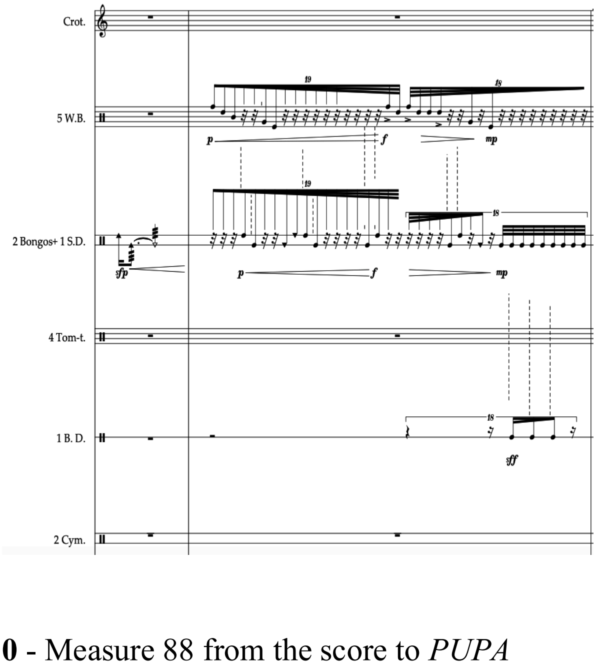
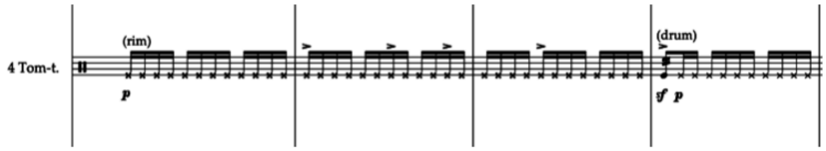

Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
19
18
p
f
mp
sfp
sff

Figure 30 - Measure 88 from the score to *PUPA*

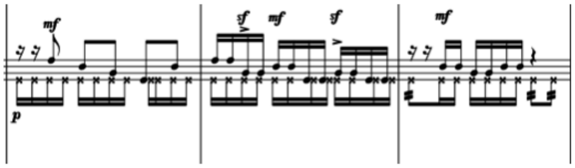
Starting with measure 98 (the start of the ***in-pupa*** phase) the four tom-toms, whose timbre has not appeared in ***pre-pupa***, state clear and organized musical materials based in a 4/4 time signature. The appearance of these toms have a profound effect on one's retrospective understanding of the preceding materials. ***In-pupa's*** sense of order, in this case reveals in ***pre-pupa*** a sort of personal bohemianism. In fact, the inspiration for this relatively strange musical environment is based on a speculative statement about hell that I overheard by coincidence. A friend once stated that he believed that hell should be a bright office room with stringent policies forcing people to sit at their desks to perform repetitive labor without eating or sleeping, instead of fire and physical punishments. This story lead me to use the organized 4/4 materials as a symbolic representative of societal standards. I have to admit that a related anxiety about whether my future work will diminish my ability to create affects this composition. For this and other reasons, the two musical characteristics of ***in-pupa,*** and ***pre-pupa*** from mm.98-167 are intentionally placed in juxtaposition.

From the perspective of tempo and rhythm, ***in-pupa*** contains two different tempos: the fast, progressive continuity of a quarter note equals 100, and the zoned-out, transitory moments set at quarter note equals 72. These transitory moments originated in the ***pre-pupa*** phase, and have been altered slightly to bring them with the relatively faster materials now present in the "outside environment". The focused target characterizes the music in transition between these two conditions. The situation when quarter note equals 100 concentrates on quick and steady progress. In contrast, the other case, when quarter note equals 72, tends to establish a self-concentrated composing, listening, and performing experience. In regards to density, the relatively faster areas of ***in-pupa*** are mainly monophonic or homophonic textures, whose tightly packed rhythms stand in contrast to the more spacious, and polyphonic zoning-out textures.**(Figure 31)** These materials also stand in emotional contrast, with the slower materials establishing a more personal and concentrated listening experience. In experiencing the piece, listeners will likely be able to easily distinguish the zoned-in and zoned-out materials, creating a moment-by-moment "yo-yo" experience, and empathetically share the perceived struggles of the performer in navigating this situation.

mm 99-101— Monophonic texture


4 Tom-t.
(rim)
p
(drum)
sf p

mm 109-111 — Homophonic texture


mf
p
sf
mf
sf
mf

mm 154 —Polyphonic texture

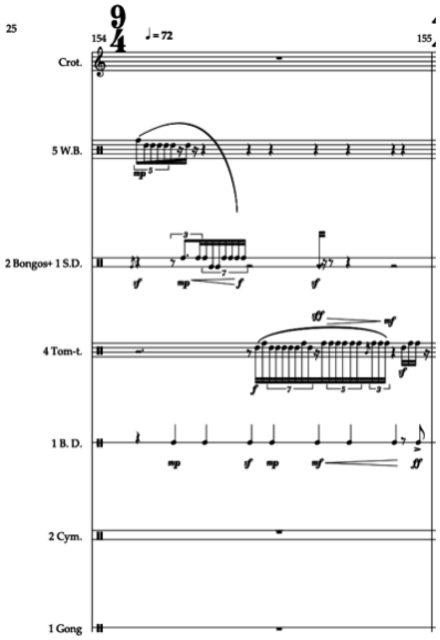

25
154
9/4
♩=72
155
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B.D.
2 Cym.
1 Gong
mp
sf
mp
f
sf
ff
mf
f
mf
ff

Figure 31 - Examples of monophonic, homophonic and polyphonic textures in ***in-pupa*** phase.

There will always be a part of me that feels awkward in a highly ordered and hierarchical society. As a result, it is difficult for me to accept that I must conceal some aspects of myself behind a protective coloration in order to live a peaceful life. In the final phase, ***pupa-exit,*** all of the previous materials, including the zoned-out "individual" materials at both q.=60 and 70, and the "social-environment" materials at q.=100 work together to precipitate the last phase of *PUPA's* metamorphosis. The woodblocks lead the beginning of this phase with ornamental notes played at the piece's original tempo, which strongly echoes the woodblock contours in the ***pre-pupa*** phase. Therefore, it could be taken as a transformed recapitulation of an authentic individuality, which it emerges as a soliloquy *(S1)* for an in-depth self-examination. This recapitulation is followed by instances of the "adjusted individuality" and "social environment" materials, before bringing the contours of phases one and two into the tempo of the "social0environmental" material. However, this tempo change does not completely compromise the fluid characteristics of these musical units. In fact, for example, in m.180, the intensity level of the woodblock material has been significantly augmented by increasing its original tempo. Consequentially, the grounded strokes in the following measure also become more dramatic **(Figure 32)** Still, the rhythmic and instrumental integrity of this material relative to the original means that the fluid and flexible sound of individuality can still be distinguished from the more rigid external, social interferences.

From m.196, fusion or compromise occur in the true sense, with the earlier fluidity and flexibility now being squeezed into ordered boxes. Although they are still visible as contrapuntal lines in the score, experientially their sonic individuality has been completely mixed into the sound of society and is not recognizable anymore. In *PUPA,* the complete fusion stage only lasts seven measures, from mm.198-204. Even though it was signaled in m.205 in order to make the mm 198 situation sonically more engaging. **(Figure 33.)** From a composer's personal standpoint, I still decided not to fully develop this situation since I will never relinquish my fight for the the place of solo voices in human rights contexts, until the bitter end. There is always more than one way to become a butterfly.

From mm196, the fusion or compromise occurred in the true sense, in which the fluidity and flexibility have been squeezed into the ordered boxes. Although they are still contrapuntal on the score, however, through the auditory experience, the sound individuality has been completely mixed into the sound of society and is not recognizable anymore. In *PUPA,* the complete fusion stage only lasts seven measures from mm.198-204. **(Figure 33)** From a composer's standpoint, I still decided not to fully develop this situation since it is not artistically interesting to me, and represents conformity which I would rather fight against than aestheticize. There is always more than one way to become a butterfly.

There are two places in the score, m.79 and m. 214, where the performer may use the sourced materials and improvise from them based on a set of instructions. These sections are, in my opinion, monologues (*M2*) that communicate with one's infinite past and infinite future or with one's infinite *samsara*. It is, indeed, always the *PUPA* stage, which originates from and travels toward somewhere. I listen to the last crotales tremolos and read in my mind, "*There is always more than one way to become a butterfly.* "

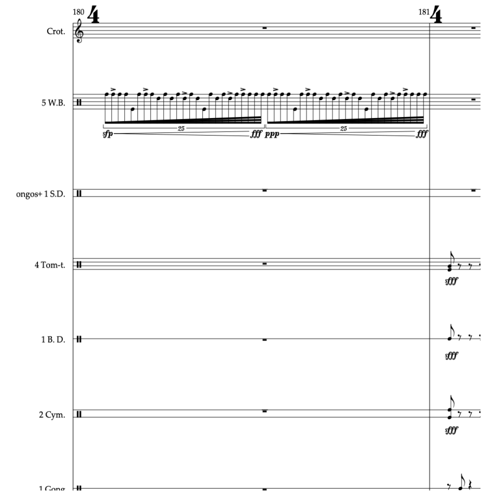

180
181
4
Crot.
5 W.B.
ongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
25
sfp
fff
ppp
fff

Figure 32. Measure 180 in *PUPA*

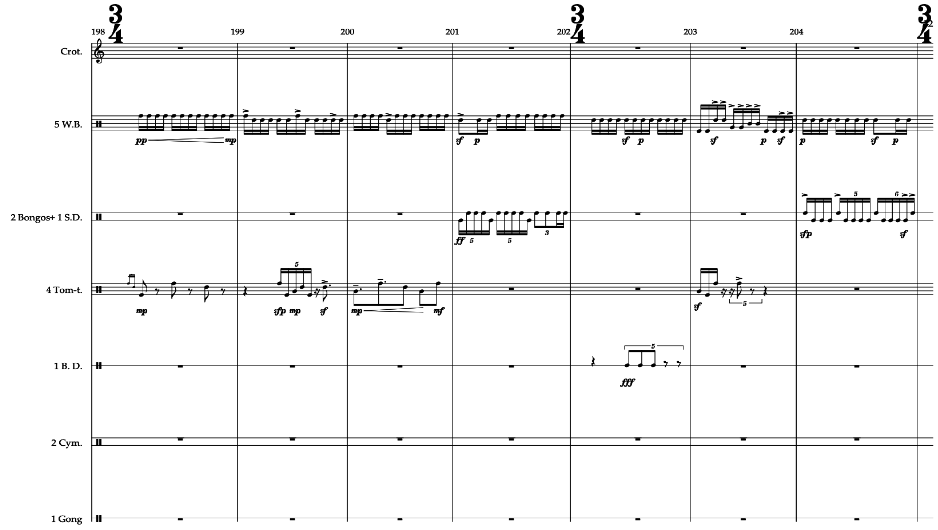
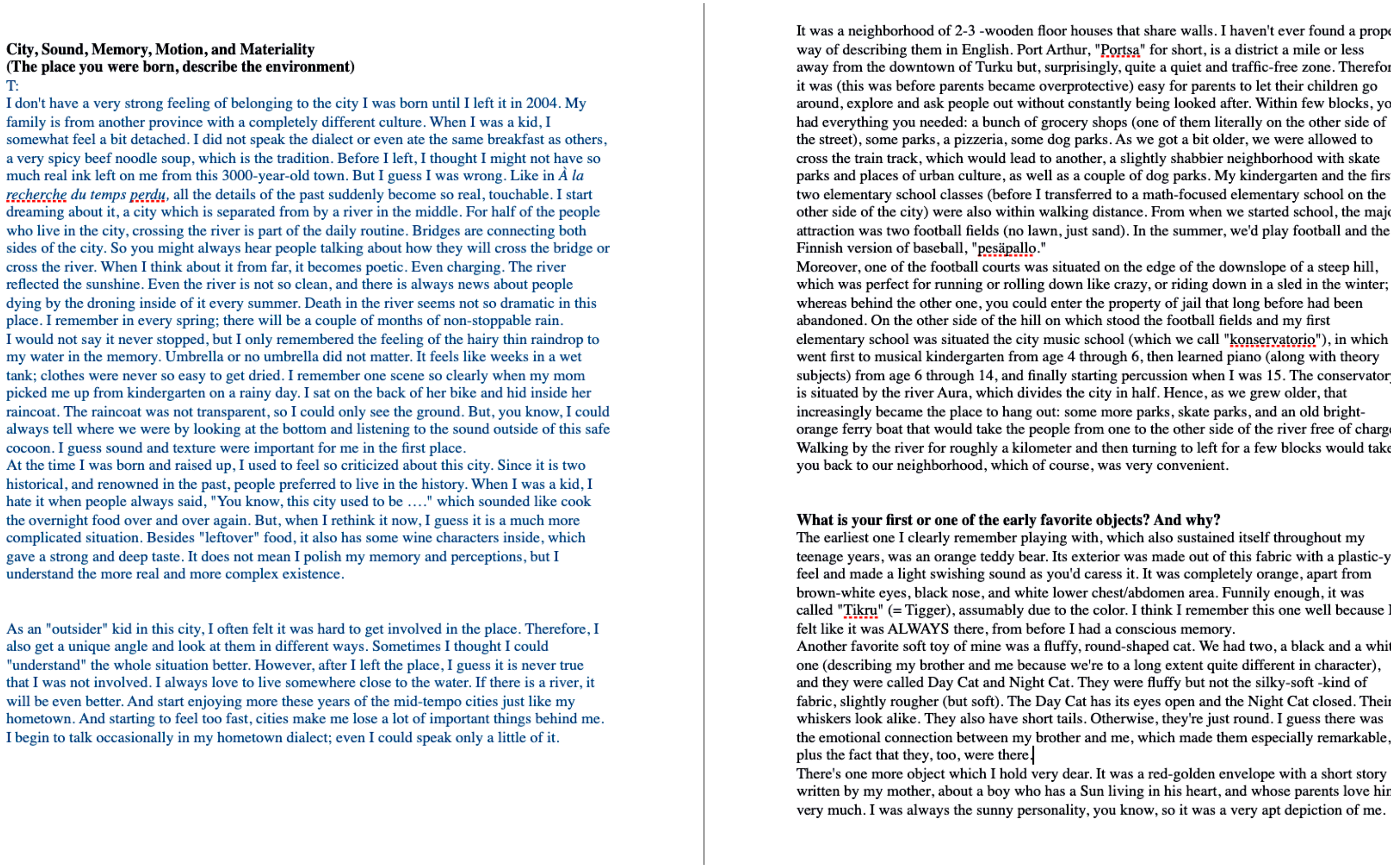

3
4
198
199
200
201
202
203
204
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
pp
mp
sf
p
ff
sfp
mf
fff

Figure 33 - The complete fusion part in *PUPA*—from measure 198 to measure 204.

Finally, I have to underline that *PUPA's* collaboration method, in the beginning, is quite different from *Bridge* and *Rough Shell,* and may become one of the major methods of working with musicians in the future. With the two amazing percussionists Kalle Hakosalo and Michael Jones, before the collaboration, I have intuitively established inter-personal connections with both of them. Especially with Kalle, since we are living in two continents without overly manipulate this process. I came up with the idea that we could co-write some of our experiences in the past. However, instead of proposing a topic and asking everyone to send essays to each other weekly, we would open a co-editing google doc, set an hour timer, and start writing together, using different text colors to differentiate our writings.(**Figure 34)** This co-writing practice has provided an intriguing opportunity to create heterogeneous models super-positioning soliloquy, monologue, and dialogue among the relationships between a solo performer and solo composer. In particular, composers could be involved in this real-time "model performance" with both their concrete and conceptual body. Also, performers could read composers' minds better through comprehending some behind scene stories. Thus, composer and performer could soon establish an intimate and trustworthy environment together and consequently improve the collaboration's quality and efficiency.



City, Sound, Memory, Motion, and Materiality
(The place you were born, describe the environment)

T:

I don't have a very strong feeling of belonging to the city I was born until I left it in 2004. My family is from another province with a completely different culture. When I was a kid, I somewhat feel a bit detached. I did not speak the dialect or even ate the same breakfast as others, a very spicy beef noodle soup, which is the tradition. Before I left, I thought I might not have so much real ink left on me from this 3000-year-old town. But I guess I was wrong. Like in *À la recherche du temps perdu*, all the details of the past suddenly become so real, touchable. I start dreaming about it, a city which is separated from by a river in the middle. For half of the people who live in the city, crossing the river is part of the daily routine. Bridges are connecting both sides of the city. So you might always hear people talking about how they will cross the bridge or cross the river. When I think about it from far, it becomes poetic. Even charging. The river reflected the sunshine. Even the river is not so clean, and there is always news about people dying by the droning inside of it every summer. Death in the river seems not so dramatic in this place. I remember in every spring; there will be a couple of months of non-stoppable rain.

I would not say it never stopped, but I only remembered the feeling of the hairy thin raindrop to my water in the memory. Umbrella or no umbrella did not matter. It feels like weeks in a wet tank; clothes were never so easy to get dried. I remember one scene so clearly when my mom picked me up from kindergarten on a rainy day. I sat on the back of her bike and hid inside her raincoat. The raincoat was not transparent, so I could only see the ground. But, you know, I could always tell where we were by looking at the bottom and listening to the sound outside of this safe cocoon. I guess sound and texture were important for me in the first place.

At the time I was born and raised up, I used to feel so criticized about this city. Since it is two historical, and renowned in the past, people preferred to live in the history. When I was a kid, I hate it when people always said, "You know, this city used to be ...." which sounded like cook the overnight food over and over again. But, when I rethink it now, I guess it is a much more complicated situation. Besides "leftover" food, it also has some wine characters inside, which gave a strong and deep taste. It does not mean I polish my memory and perceptions, but I understand the more real and more complex existence.

As an "outsider" kid in this city, I often felt it was hard to get involved in the place. Therefore, I also get a unique angle and look at them in different ways. Sometimes I thought I could "understand" the whole situation better. However, after I left the place, I guess it is never true that I was not involved. I always love to live somewhere close to the water. If there is a river, it will be even better. And start enjoying more these years of the mid-tempo cities just like my hometown. And starting to feel too fast, cities make me lose a lot of important things behind me. I begin to talk occasionally in my hometown dialect; even I could speak only a little of it.

It was a neighborhood of 2-3 -wooden floor houses that share walls. I haven't ever found a prope way of describing them in English. Port Arthur, "Portsa" for short, is a district a mile or less away from the downtown of Turku but, surprisingly, quite a quiet and traffic-free zone. Therefor it was (this was before parents became overprotective) easy for parents to let their children go around, explore and ask people out without constantly being looked after. Within few blocks, yo had everything you needed: a bunch of grocery shops (one of them literally on the other side of the street), some parks, a pizzeria, some dog parks. As we got a bit older, we were allowed to cross the train track, which would lead to another, a slightly shabbier neighborhood with skate parks and places of urban culture, as well as a couple of dog parks. My kindergarten and the firs two elementary school classes (before I transferred to a math-focused elementary school on the other side of the city) were also within walking distance. From when we started school, the majo attraction was two football fields (no lawn, just sand). In the summer, we'd play football and the Finnish version of baseball, "pesäpallo."

Moreover, one of the football courts was situated on the edge of the downslope of a steep hill, which was perfect for running or rolling down like crazy, or riding down in a sled in the winter; whereas behind the other one, you could enter the property of jail that long before had been abandoned. On the other side of the hill on which stood the football fields and my first elementary school was situated the city music school (which we call "konservatorio"), in which went first to musical kindergarten from age 4 through 6, then learned piano (along with theory subjects) from age 6 through 14, and finally starting percussion when I was 15. The conservator is situated by the river Aura, which divides the city in half. Hence, as we grew older, that increasingly became the place to hang out: some more parks, skate parks, and an old bright-orange ferry boat that would take the people from one to the other side of the river free of charg Walking by the river for roughly a kilometer and then turning to left for a few blocks would take you back to our neighborhood, which of course, was very convenient.

What is your first or one of the early favorite objects? And why?

The earliest one I clearly remember playing with, which also sustained itself throughout my teenage years, was an orange teddy bear. Its exterior was made out of this fabric with a plastic-y feel and made a light swishing sound as you'd caress it. It was completely orange, apart from brown-white eyes, black nose, and white lower chest/abdomen area. Funnily enough, it was called "Tikru" (= Tigger), assumably due to the color. I think I remember this one well because I felt like it was ALWAYS there, from before I had a conscious memory.

Another favorite soft toy of mine was a fluffy, round-shaped cat. We had two, a black and a whit one (describing my brother and me because we're to a long extent quite different in character), and they were called Day Cat and Night Cat. They were fluffy but not the silky-soft -kind of fabric, slightly rougher (but soft). The Day Cat has its eyes open and the Night Cat closed. Their whiskers look alike. They also have short tails. Otherwise, they're just round. I guess there was the emotional connection between my brother and me, which made them especially remarkable, plus the fact that they, too, were there.

There's one more object which I hold very dear. It was a red-golden envelope with a short story written by my mother, about a boy who has a Sun living in his heart, and whose parents love hir very much. I was always the sunny personality, you know, so it was a very apt depiction of me.

Figure 34. A co-writing sample between Kalle Hakosalo and Tiange Zhou

Chapter 7. Conclusion regarding Future Development

The main goal of this dissertation is to examine possible methods for creating, collaborating, and learning from creative collaborations as soloists while isolated in a room and mentally interrupted by the invisible columns of the 2020 COVID pandemic. According to this demand, this research has been validated. As mentioned in earlier chapters, the criterion for an effective artistic collaboration method, in my opinion, is whether it achieves the goal of engaging performers with relatively unambiguous information without precisely manipulating all of the specific sonic presentations. The purpose of this study was to access the significance of score-based and non-score-based communications in establishing a collaborative zone. Through composing and collaborating on three solo pieces with outstanding musicians, one intriguing finding was that working together on solo music can easily make for a highly effective performer-composer collaboration, since it has the natural advantage of being an intimate personal dialogue between only two individuals. These advantages can be compounded by the design and execution of specific collaborative strategies, such as those outlined above. Interestingly, in all three of the works discussed, I started communicating with particular musicians before finishing up the scores or even completing a structural design, but after I had established approximately clear directions to pursue. There is a sweet spot for me personally, and I like to take performers' suggestions, coming from a place of deep expertise, and provide enough security for both the performer and composer to rest assured that the piece will not end up “going nowhere”.

Another unanticipated finding was that in both score-based or non-score-based communication, if I left the improvisation part completely up to the performers without giving any references, it would not help performers engage with the piece better. A possible explanation for this might be that it is difficult for performers to draw the discourse frame and be confident of their musical choices without any references. On the other hand, it might also give an unfriendly impression that the composer is not doing their job. These findings largely improve my ability to collaborate effectively with others in future projects. However, these findings could thus be comprehended as signals requiring me to iterate my composition strategies into more rigorous and adaptable stages, embodying in-depth awareness of actual sound realizations.

From another perspective, these findings helped me understand the reasons behind a few unsuccessful collaborations in my very early career as a composer. These failures were likely related to both of my score-based or non-score-based communications with others. At the time, how I share my musical ideas was either too closed or too open.[37] One possible explanation for being too close might be lacking skills and confidence to leave some parts flexible without worrying that the music might go to the wrong territories. In contrast, the possible reason for being too open was the insecurity inside of many younger creative artists, that we have to leave everything up to be decided by performers to receive performance opportunities. This dilemma is an important issue for future research in collaborative artistic practice as well as composition pedagogy.

At this moment, from my point of view, the predicament may have something to do with the reality that my composer's body has too often been present by my desk but absent in the performance space. It does not mean that we need to learn how to play every instrument we compose for, however, we may still occasionally place our bodies in the performance space in participating roles other than that of composers. Indeed, the reason why I decided to characterize the solo music works from both composer’s and performer’s perspectives as monologues or soliloquies is likely due to my experiences working as a projection designer, dancer, and actress in performance spaces. The monologue/soliloquy mindset has been quite helpful in establishing a profound structure while giving enough flexibility for live performance. The fact that these compositions are solo pieces for particular musicians, might make some of the findings less generalizable to other situations. If one is going to pursue a more generalized solution for broader concerns, more research using large randomized controlled trials is needed. However, from a first-person composer’s perspective, these outcomes have reinforced my conviction that I compose for specific individuals rather than general musical jobholders and have allowed me to make promising suggestions regarding the near future of my practice.

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[37] Here “being too close” means to overly manipulate all the details of the composition.

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APPENDIX

Scores for *Merits of Solo Voices*

BRIDGE

For Solo Flute

Tiange Zhou (2021)

Bridge is something "in between". It flys over the cannoyn, stratches itse body, connects between possible and impossible gaps. This piece is inspired by Franz Kafka's The Bridge and Wilfrido Terrazas' performance. Because three of us have been in situations where at least two cultures and identifies are overlapping, interweaving and conflicting.

Dedication
To Wilfrido Terrazas

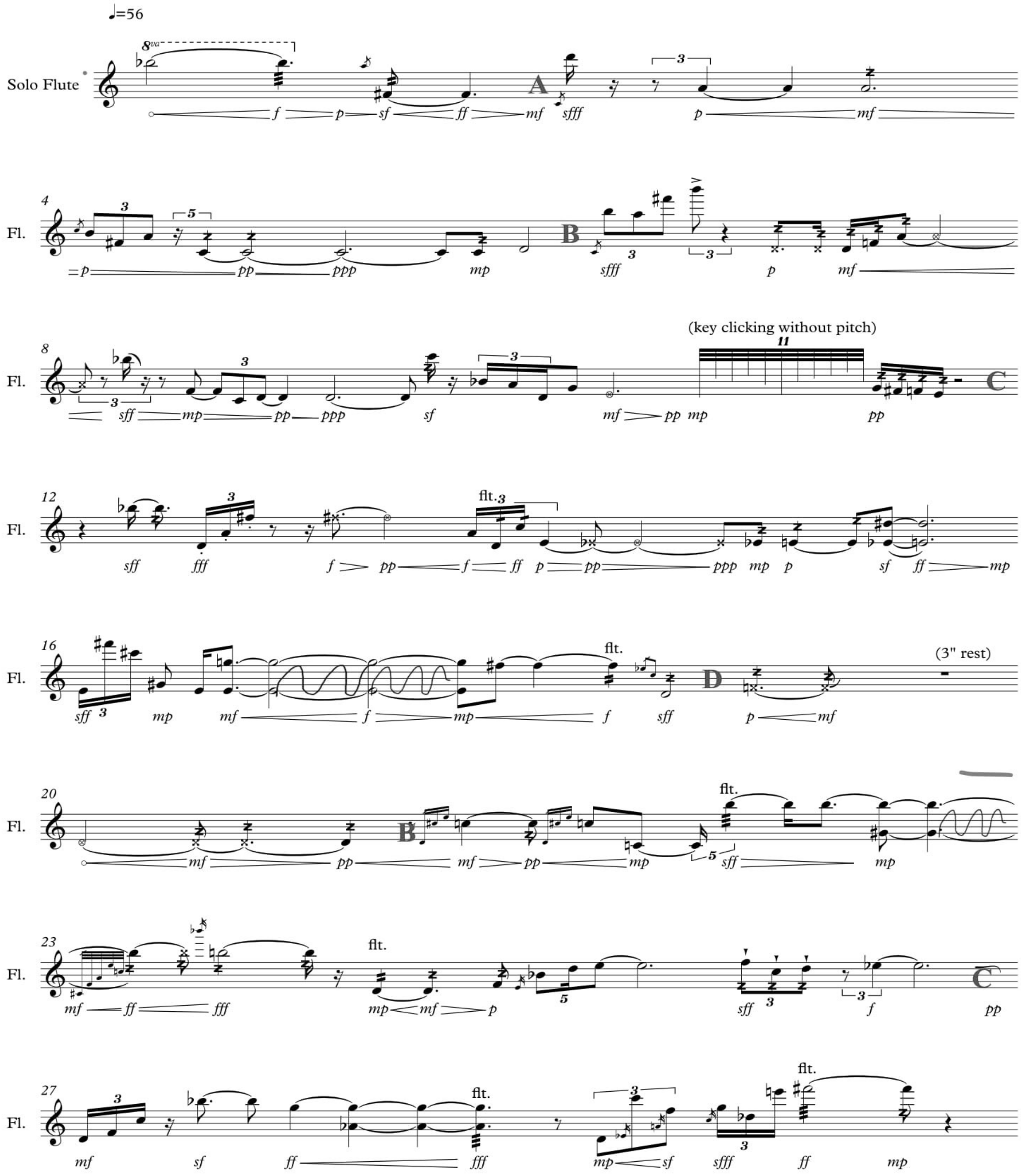
Thank you
for your mentorship, performance and incredible bravery in bridging cultures.

Perforrmance Note:

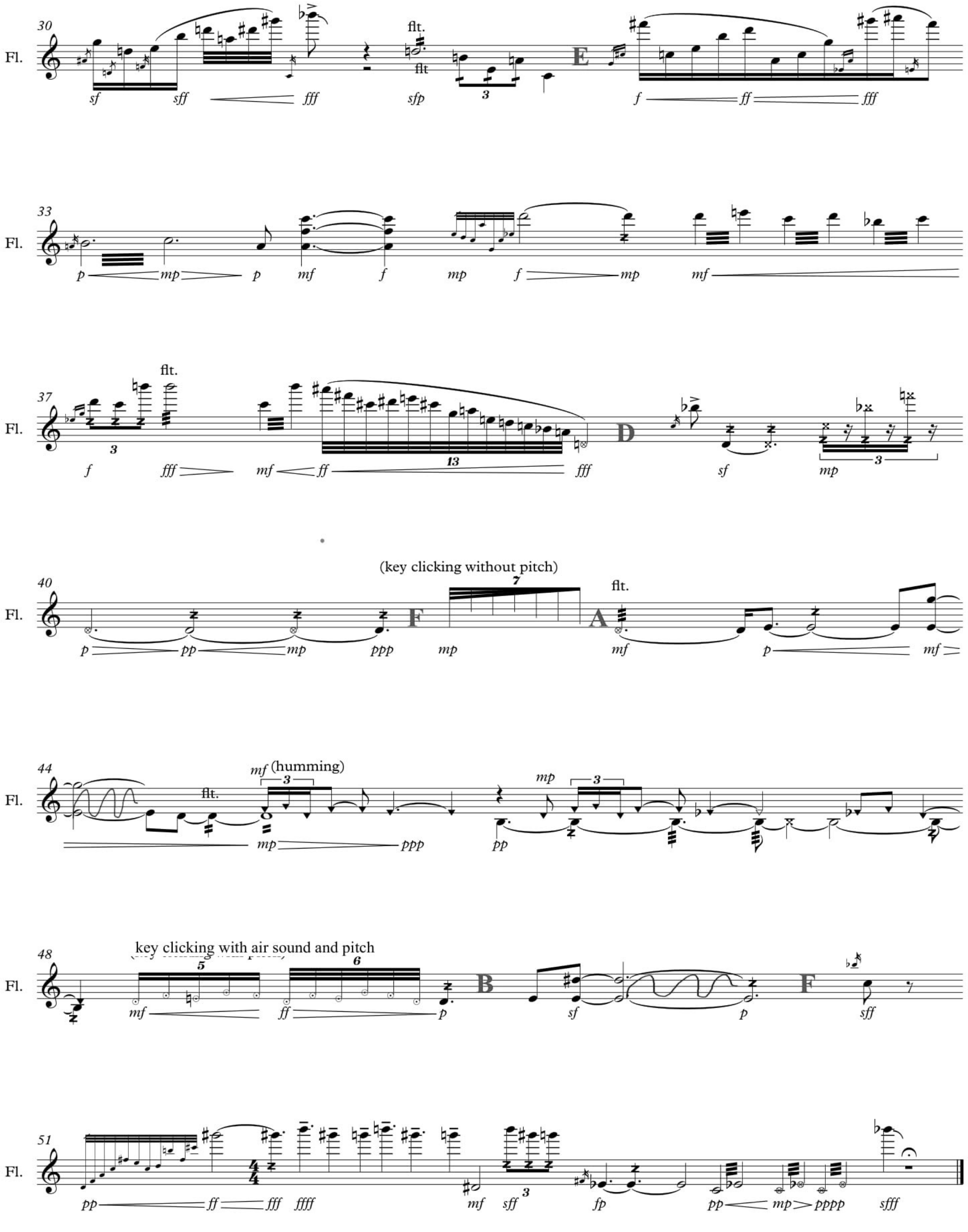
In this composition, there are two parallel divisions: *Entities and Cells*.

During the performance, the performer is responsible for inserting the specific cell elements associated with your improvisation into the entity domain and connecting the two. To put another way, you will not perform the cell exactly as written on the score. When it's the second or third time through a cell unit, you'll have more flexibility to improvise.

Entities

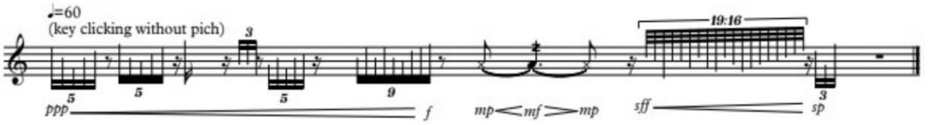


♩=56
8va
Solo Flute
A
B
C
D
Fl.
flt.
(key clicking without pitch)
(3" rest)
f
p
sf
ff
mf
sfff
pp
ppp
mp
sff
fff

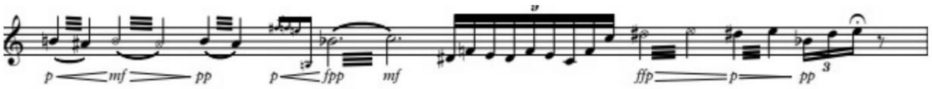

30
Fl.
sf
sff
fff
flt.
flt
sfp
3
E
f
ff
fff
33
Fl.
p
mp
p
mf
f
mp
f
mp
mf
37
Fl.
flt.
3
f
fff
mf
ff
13
fff
D
sf
mp
3
40
Fl.
(key clicking without pitch)
7
F
A
flt.
p
pp
mp
ppp
mp
mf
p
mf
44
Fl.
flt.
mf (humming)
3
mp
ppp
mp
3
pp
48
Fl.
key clicking with air sound and pitch
5
6
mf
ff
p
B
sf
p
F
sff
51
Fl.
4
4
3
pp
ff
fff
ffff
mf
sff
fp
pp
mp
pppp
sfff

Cells

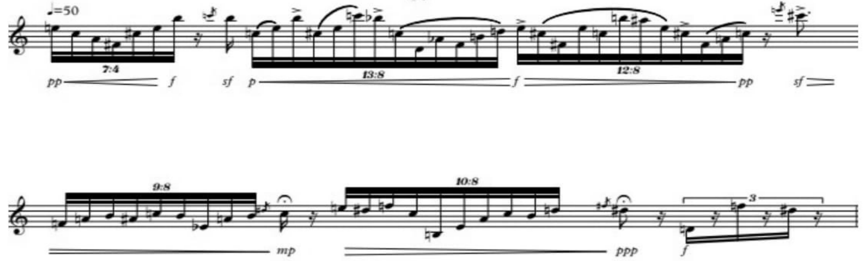
A


♩=60
(key clicking without pich)
ppp f mp mf mp sff sp
19:16

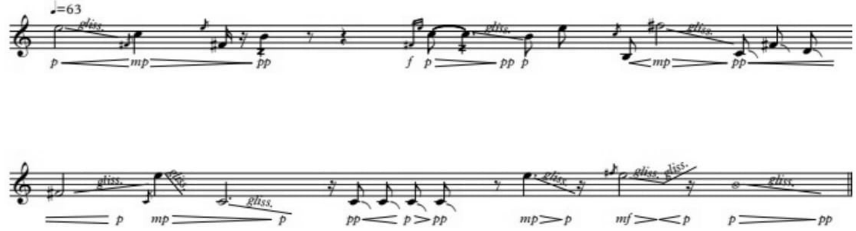
B


p mf pp p fpp mf ffp p pp

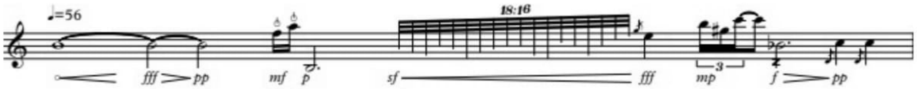
C


♩=50
7:4 13:8 12:8 9:8 10:8
pp f sf p f pp sf mp ppp f

D


♩=63
gliss.
p mp pp f p pp p mp pp mf p

E


♩=56
18:16
fff pp mf p sf fff mp f pp

F **A series of multi-phonics by performer’s choice**

ROUGH SHELL

FOR SOLO DOUBLE BASS

TIANGE ZHOU

2021

This music piece, for me, serves as a memory
container in a metaphorical environment
where a maze of mirrors embraces the "I"
within and reflects the slides of "my" past.

Dedication
To Mark Dresser

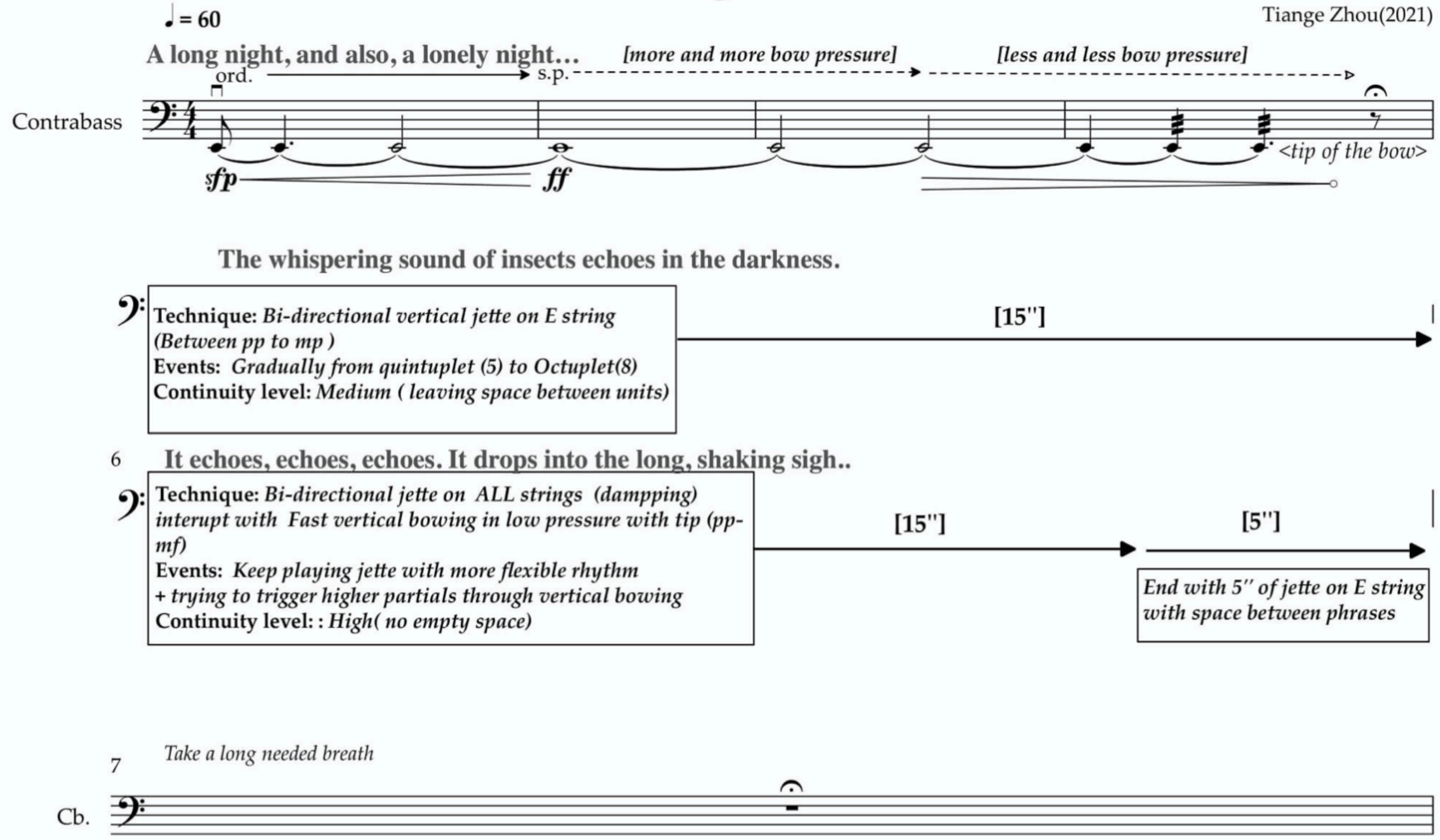
Thank you
for mentorship, performance, and support.

Performance Notes:

To perform this piece, the musician should carefully select and listen to the sound texture. Particularly during the instructive improvisation. It is critical to adhere to the instructions for duration, articulation, dynamics, event order, and continuity level, as well as to maintain the personal in-moment reflections.

Rough Shell

Tiange Zhou(2021)


♩= 60
A long night, and also, a lonely night…
ord.
s.p.
[more and more bow pressure]
[less and less bow pressure]
Contrabass
sfp
ff
<tip of the bow>
[15'']
6
[15'']
[5'']
7
Cb.

The whispering sound of insects echoes in the darkness.

Technique: *Bi-directional vertical jette on E string (Between pp to mp)*
Events: *Gradually from quintuplet (5) to Octuplet(8)*
Continuity level: *Medium (leaving space between units)*

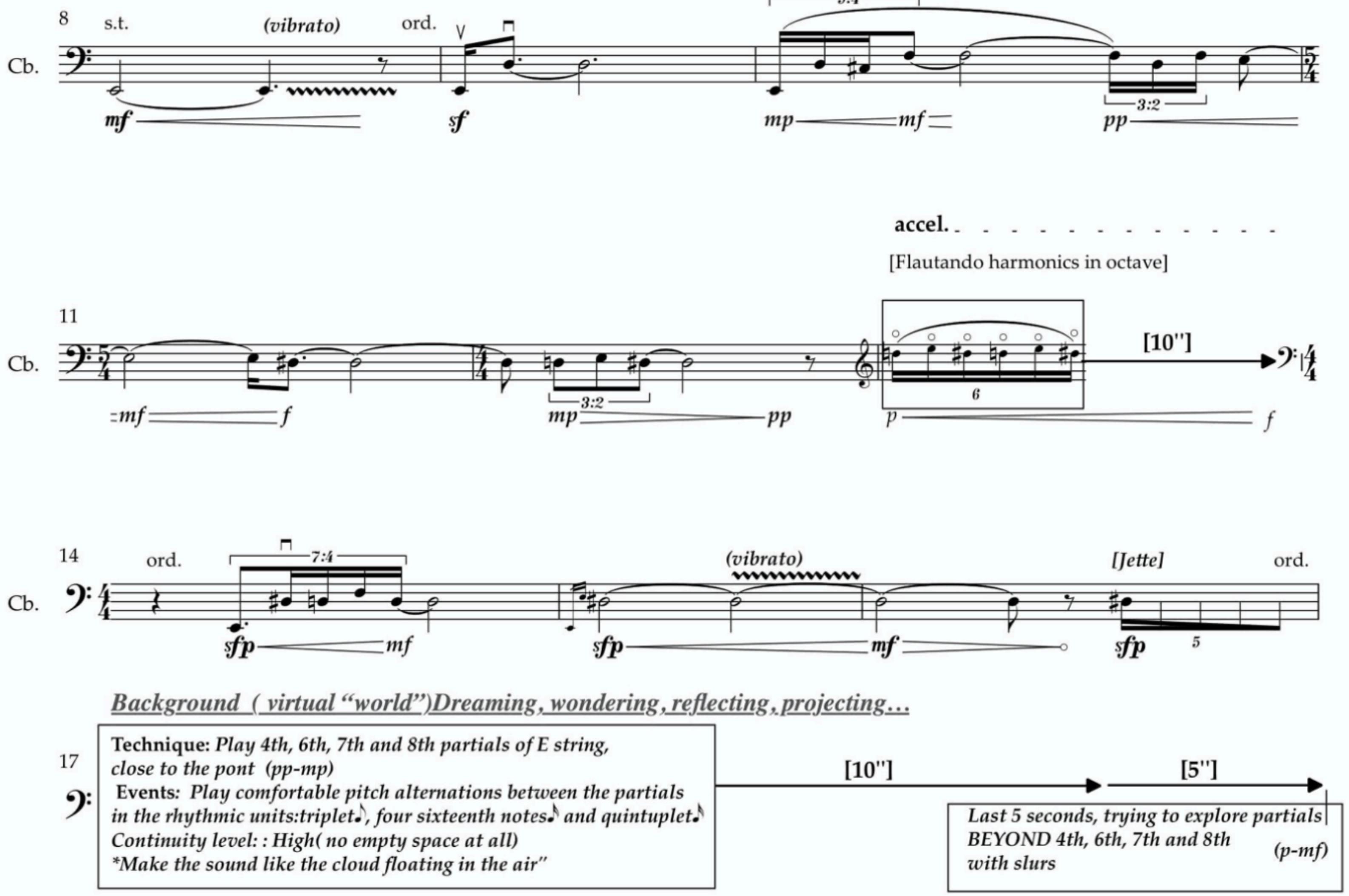
It echoes, echoes, echoes. It drops into the long, shaking sigh..

Technique: *Bi-directional jette on ALL strings (dampping) interupt with Fast vertical bowing in low pressure with tip (pp-mf)*
Events: *Keep playing jette with more flexible rhythm + trying to trigger higher partials through vertical bowing*
Continuity level: : *High(no empty space)*

End with 5'' of jette on E string with space between phrases

Take a long needed breath

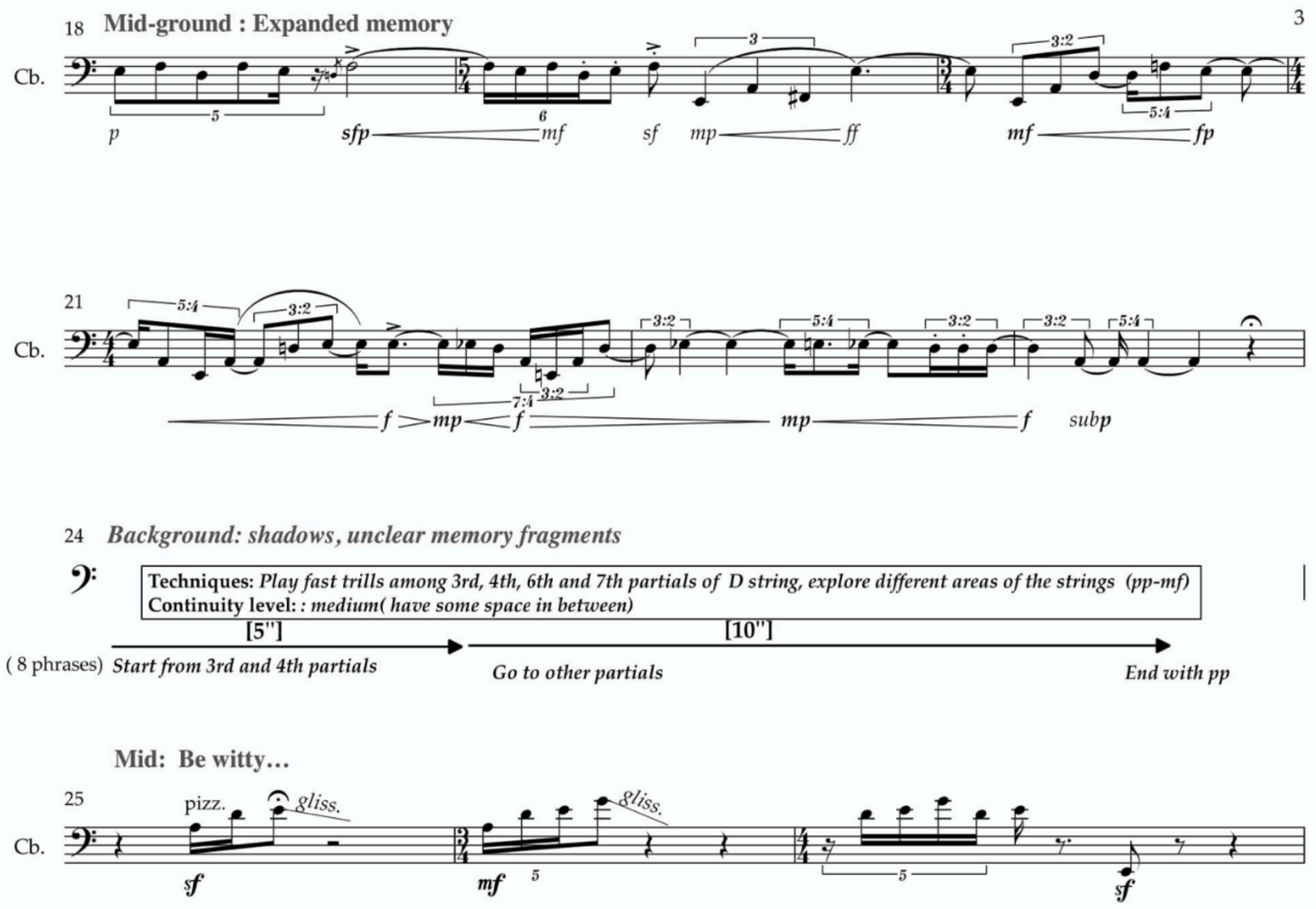
Front stage: One is hovering in the room, where a glimpse of moonlight is reflected on the grey, cold floor….
(from the sonic point of view, Front stage is the most present one, then, mid-ground and background


8
s.t.
(vibrato)
ord.
Cb.
mf
sf
5:4
mp
mf
3:2
pp
accel.
[Flautando harmonics in octave]
11
Cb.
mf
f
3:2
mp
pp
6
p
[10'']
f
14
ord.
Cb.
7:4
sfp
mf
(vibrato)
sfp
mf
[Jette]
ord.
sfp
5
17
[10'']
[5'']
(p-mf)

Background (virtual "world")Dreaming, wondering, reflecting, projecting…

Technique: *Play 4th, 6th, 7th and 8th partials of E string, close to the pont (pp-mp)*
Events: *Play comfortable pitch alternations between the partials in the rhythmic units:triplet♪, four sixteenth notes♪ and quintuplet♪*
Continuity level: : High(no empty space at all)
**Make the sound like the cloud floating in the air"*

Last 5 seconds, trying to explore partials BEYOND 4th, 6th, 7th and 8th with slurs *(p-mf)*

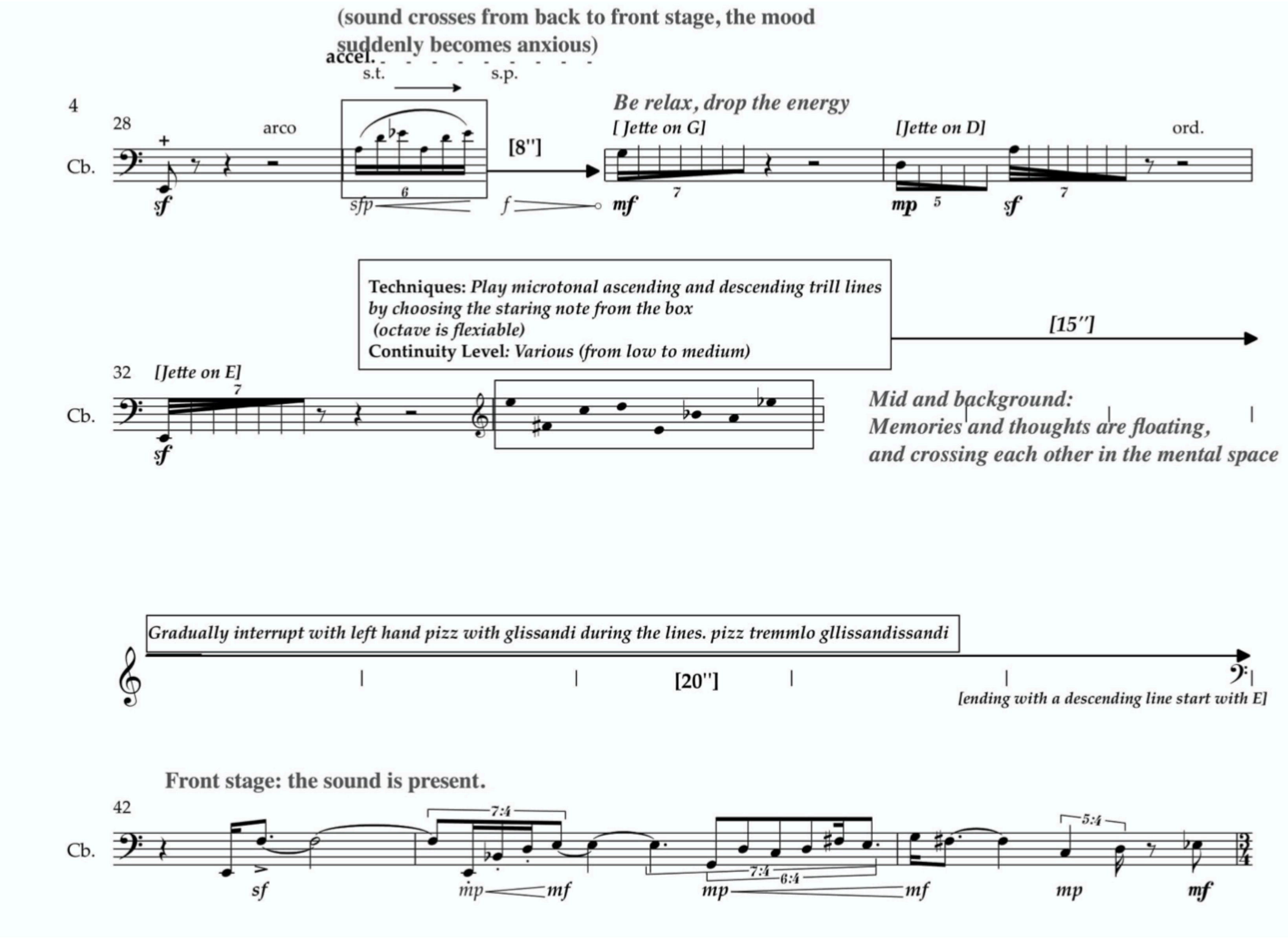

3
18 Mid-ground : Expanded memory
Cb.
5
p
sfp
6
mf
sf
mp
ff
3
3:2
5:4
mf
fp
21
5:4
3:2
7:4
3:2
f
mp
f
mp
f
subp
24 Background: shadows, unclear memory fragments
[5'']
[10'']
Mid: Be witty…
25
pizz.
gliss.
sf
mf
5
gliss.
5
sf

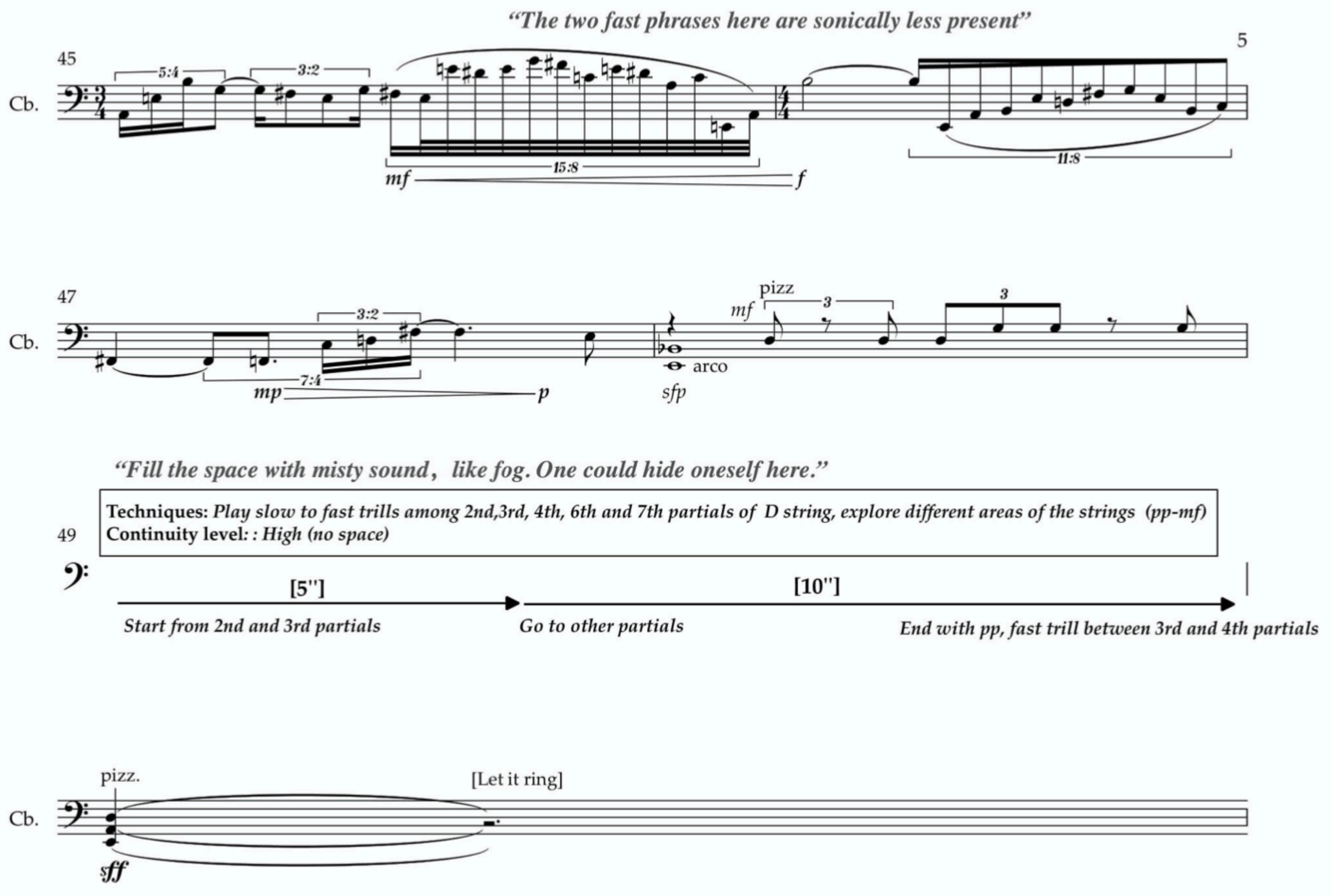
Techniques: *Play fast trills among 3rd, 4th, 6th and 7th partials of D string, explore different areas of the strings (pp-mf)*
Continuity level: *: medium(have some space in between)*

(8 phrases) *Start from 3rd and 4th partials*

Go to other partials

End with pp


(sound crosses from back to front stage, the mood suddenly becomes anxious)
accel.
s.t.
s.p.
4
28
Cb.
arco
sf
sfp
6
[8'']
f
Be relax, drop the energy
[Jette on G]
mf
7
[Jette on D]
mp
5
sf
7
ord.
Techniques: Play microtonal ascending and descending trill lines by choosing the staring note from the box (octave is flexiable)
Continuity Level: Various (from low to medium)
[15'']
32
[Jette on E]
7
Cb.
sf
Mid and background:
Memories and thoughts are floating, and crossing each other in the mental space
Gradually interrupt with left hand pizz with glissandi during the lines. pizz tremmlo gllissandissandi
[20'']
[ending with a descending line start with E]
Front stage: the sound is present.
42
Cb.
sf
7:4
mp
mf
7:4
6:4
mp
mf
5:4
mp
mf


5
45
Cb.
5:4
3:2
15:8
mf
f
11:8
47
Cb.
3:2
7:4
mp
p
pizz
mf
3
3
arco
sfp
49
[5'']
[10'']
Cb.
pizz.
[Let it ring]
sff

"The two fast phrases here are sonically less present"

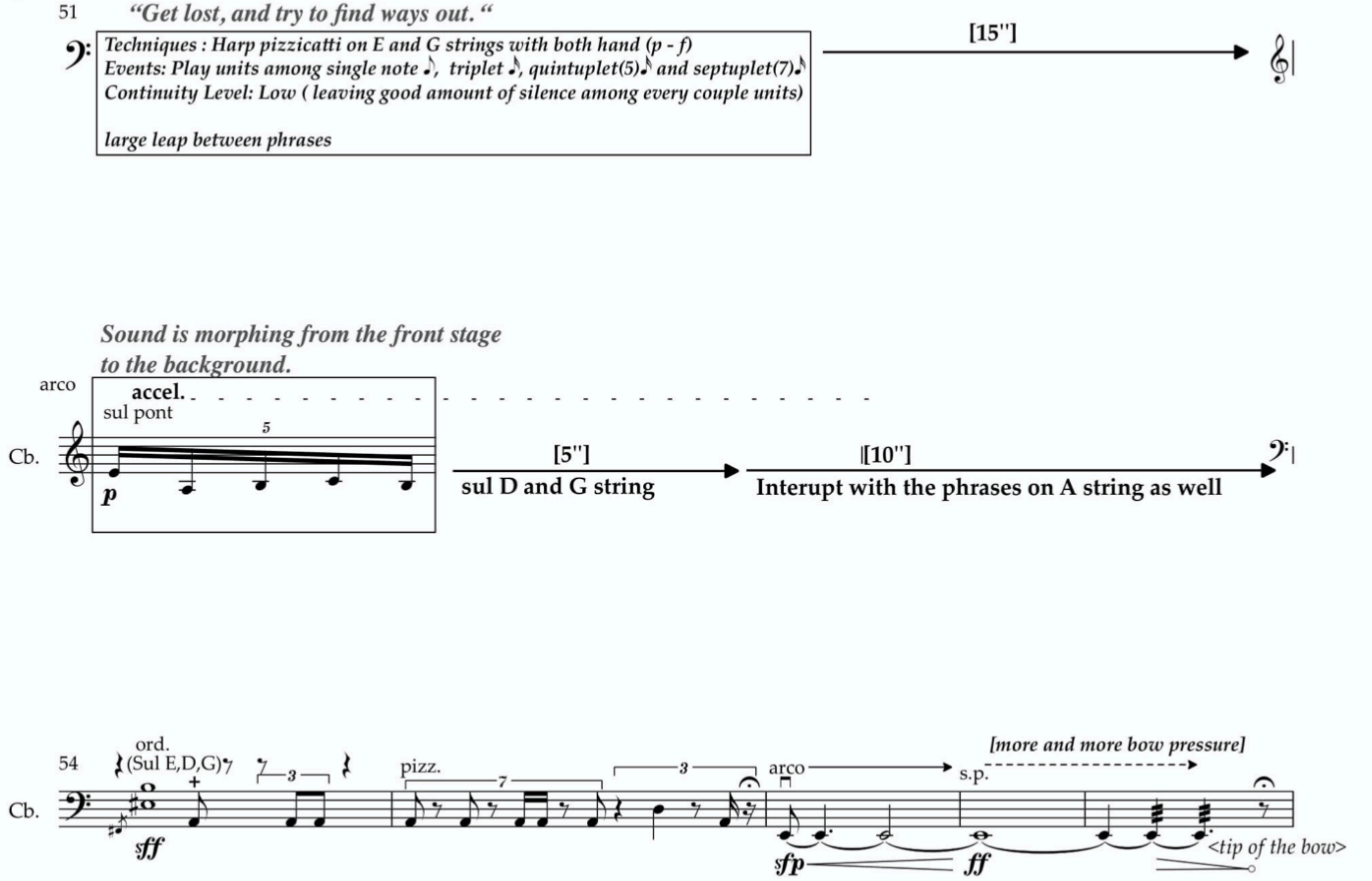
"Fill the space with misty sound, like fog. One could hide oneself here."

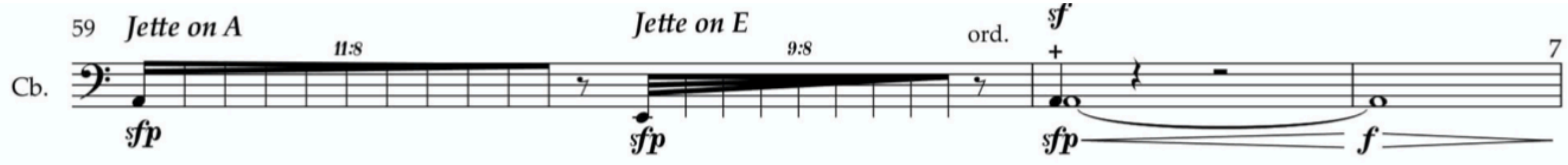
Techniques: *Play slow to fast trills among 2nd,3rd, 4th, 6th and 7th partials of D string, explore different areas of the strings (pp-mf)*
Continuity level: *: High (no space)*

Start from 2nd and 3rd partials

Go to other partials

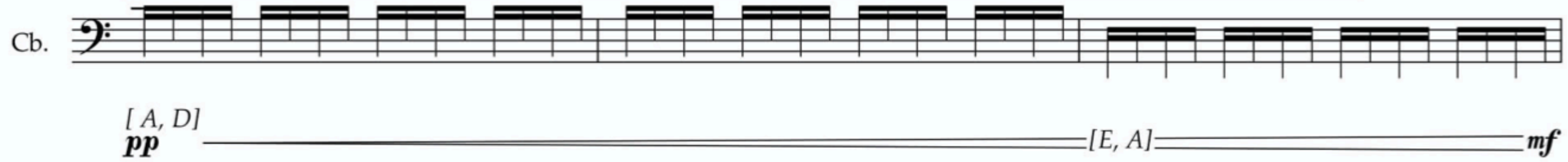
End with pp, fast trill between 3rd and 4th partials


51
"Get lost, and try to find ways out. "
Techniques : Harp pizzicatti on E and G strings with both hand (p - f)
Events: Play units among single note ♪, triplet ♪, quintuplet(5)♪ and septuplet(7)♪
Continuity Level: Low (leaving good amount of silence among every couple units)
large leap between phrases
[15'']
Sound is morphing from the front stage to the background.
arco
accel.
sul pont
5
Cb.
p
[5'']
sul D and G string
[10'']
Interupt with the phrases on A string as well
54
ord.
(Sul E,D,G)
+
3
sff
pizz.
7
3
arco
s.p.
[more and more bow pressure]
sfp
ff
<tip of the bow>


59
Jette on A
11:8
Cb.
sfp
Jette on E
9:8
sfp
ord.
sf
+
sfp
f
7

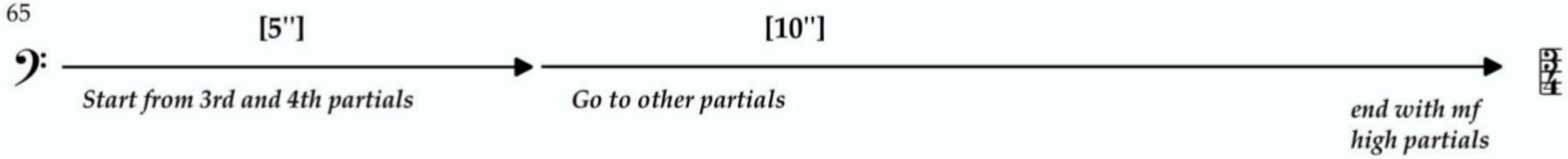
One tramps in the memories. (this phrase could be longer if it feels needed)

slow bow movements between strings, very close to the bridge back and forth between frog and tip, try to explore very sul pont texture


62
Cb.
[A, D]
pp
[E, A]
mf

Until, the mind loses its gravity. Then one might say—" I lost my mind"

Techniques: Play fast trills among 3rd, 4th, 6th and 7th partials of D string, explore different areas of the strings (pp-mf)
Events: for the first 5'' than go to other partials.
Continuity level: : medium(have some space in between)

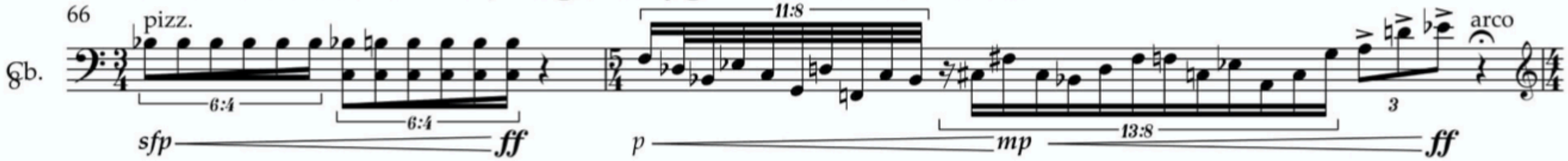


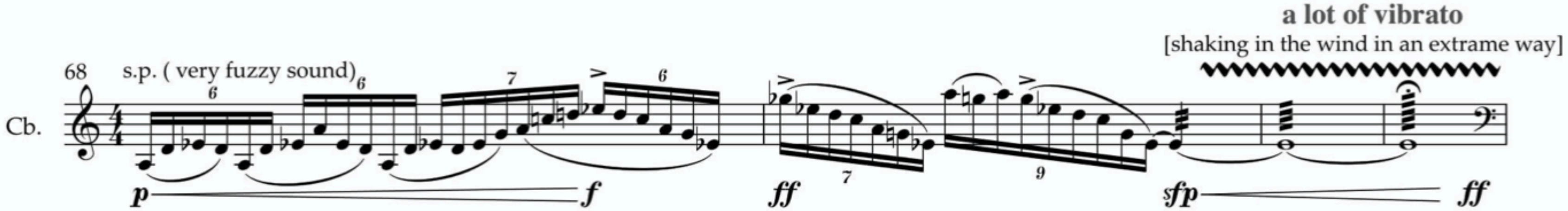
Start from 3rd and 4th partials

Go to other partials

end with mf high partials

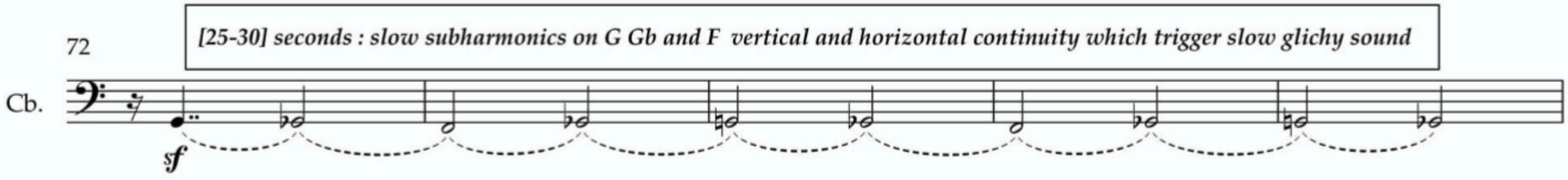
The mood becomes anxious, and gradually gets more and more intensities.

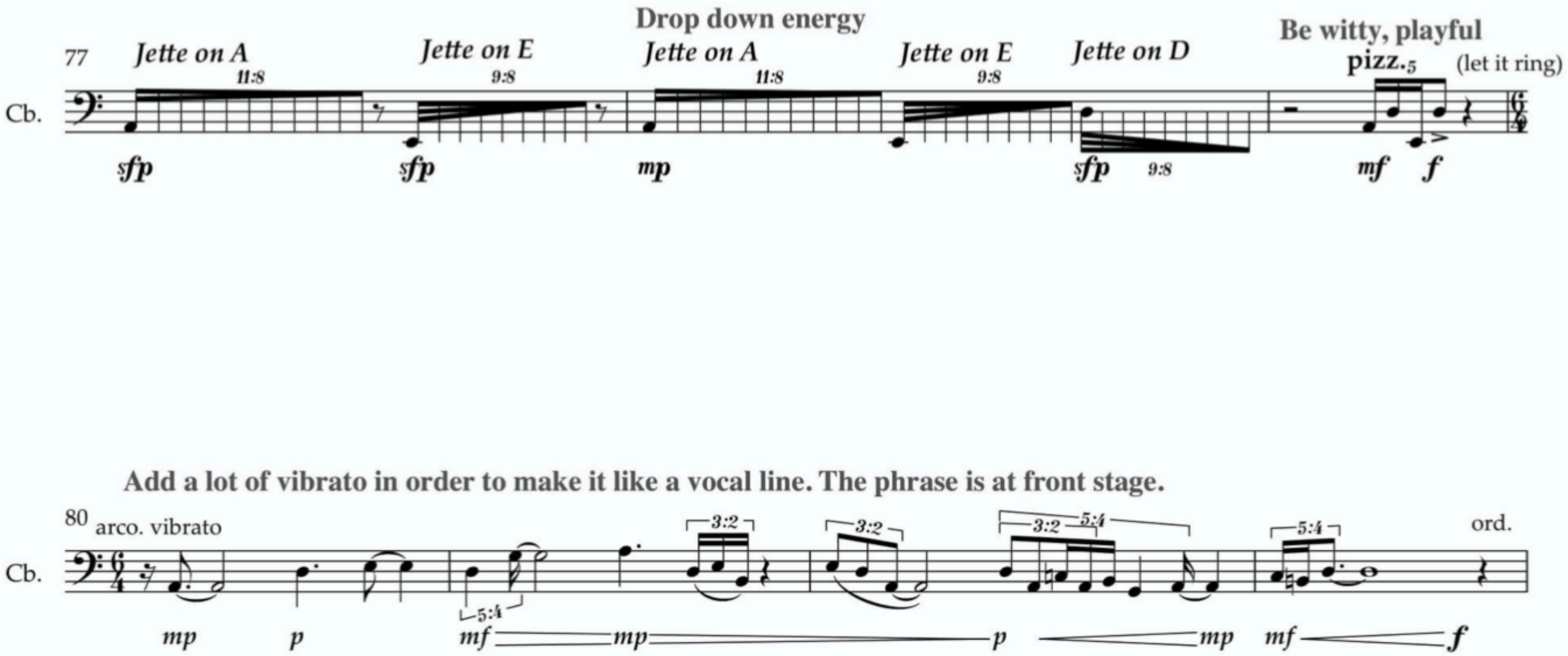

66
Cb.
pizz.
6:4
6:4
sfp
ff
11:8
p
13:8
mp
3
ff
arco


a lot of vibrato
[shaking in the wind in an extrame way]
68
Cb.
s.p. (very fuzzy sound)
6
6
7
6
p
f
ff
7
9
sfp
ff

Choose the bow which could make the most of the sound like sawing woods.

(hold the breath from the previous line)


[25-30] seconds : slow subharmonics on G Gb and F vertical and horizontal continuity which trigger slow glichy sound



Drop down energy
Be witty, playful
77
Cb.
Jette on A
11:8
Jette on E
9:8
Jette on A
11:8
Jette on E
9:8
Jette on D
9:8
pizz.
5
(let it ring)
sfp
sfp
mp
sfp
mf
f
Add a lot of vibrato in order to make it like a vocal line. The phrase is at front stage.
80
arco. vibrato
ord.
Cb.
5:4
3:2
3:2
3:2
5:4
5:4
mp
p
mf
mp
p
mp
mf
f

One is obsessed into memories, or in fact, the dream, the shell one creates, during a rough night.

Technique: *Play 4th, 6th 8th partials of E string, close to the pont (pp-mp) gradually to 4th 6th 8th and 9th partials of A string*
Events*: Play comfortable pitch alternations between the partials*
Continuity level: : High(no empty space at all)
**Make the sound like floating and losting one's way in the wild land"*

[20" and/or longer if it feels needed]

End with ppp, fast trill between 8th and 9thth partials of A string

PUPA

FOR SOLO PERCUSSION

TIANGE ZHOU

2021

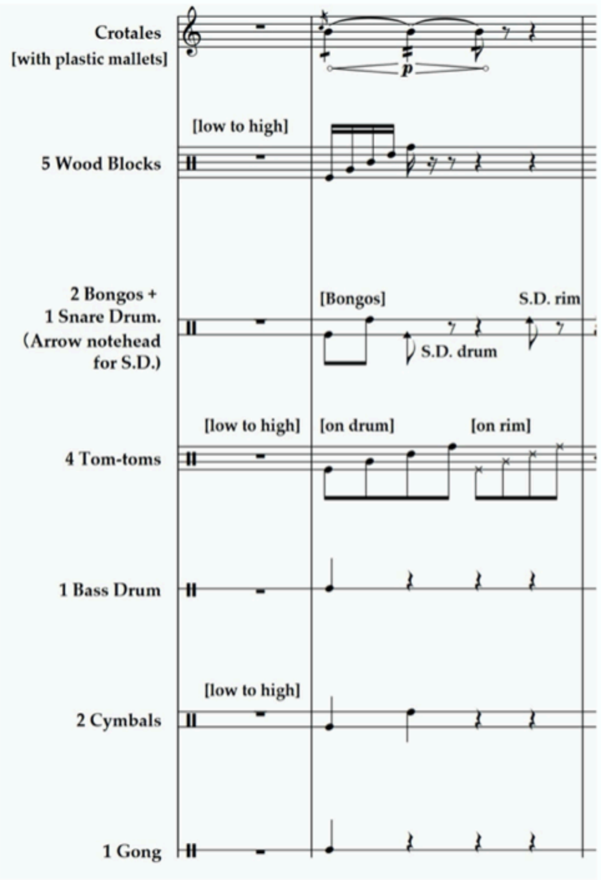
Pupa is a stage of metamorphosis in holometabolous insects that occurs prior to imago and immediately follows the embryonic and larval phases. Chrysalides, the butterfly pupa, can live for several weeks, months, or even years. Typically, a pupa is developed in concealed locations, such as behind a bush branch or amid the leaves. Under the tranquil exterior, an individual frequently undergoes a significant metamorphosis.

This piece is composing for one solo percussionist as a concerto for one and oneself.

Thank you, Michael Jones and Kalle Hakosalo,
for the support and inspiration in creating this composition.
Thank you, Michael Jones for performing this piece.

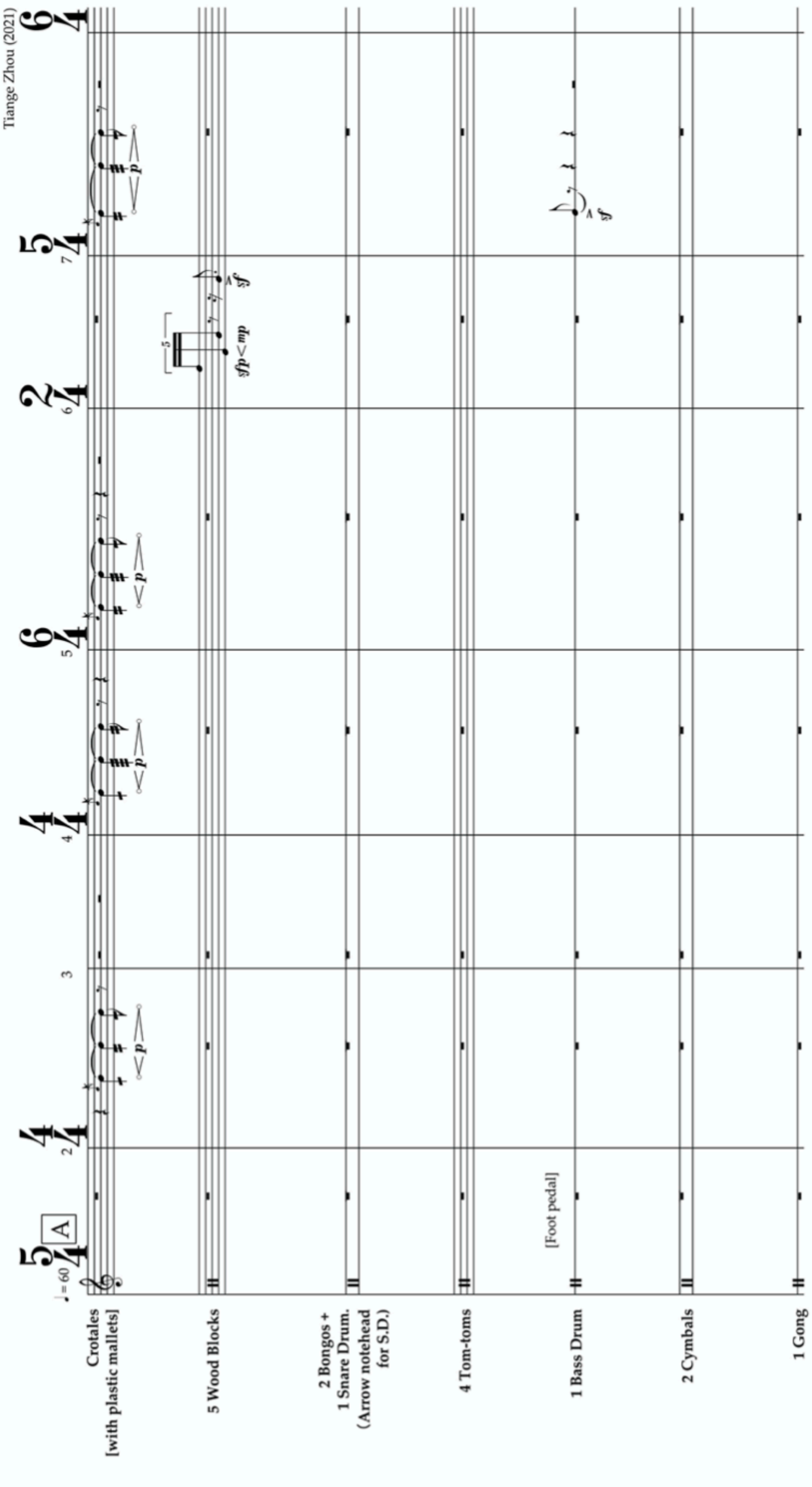
Instrumentation and notation instruction

Crotales
5 Wood Blocks
2 Bongos
1 Snare Drum
4 Tom-toms
1 Bass Drum
2 Cymbals
1 Gong

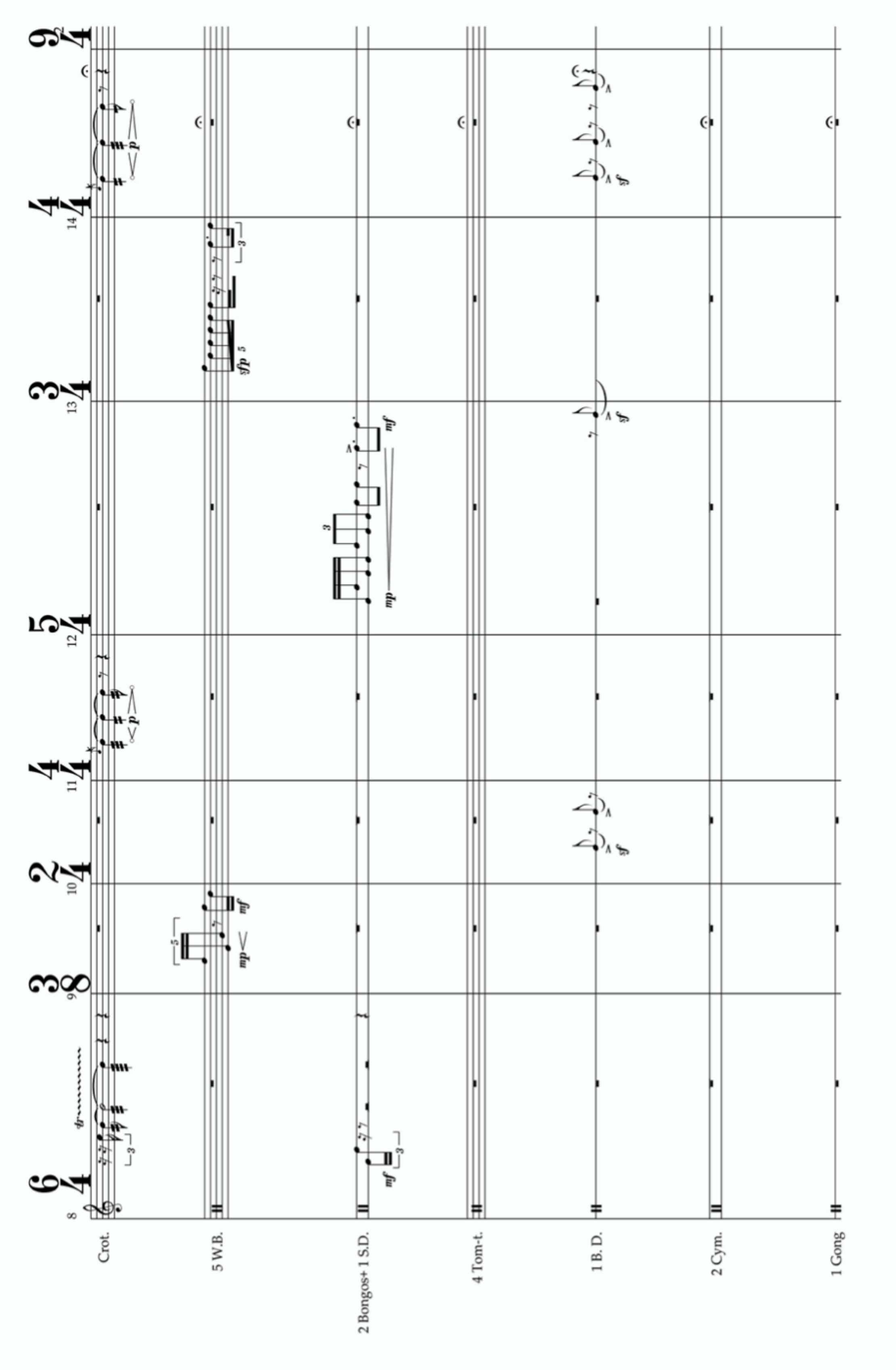

Crotales
[with plastic mallets]
p
[low to high]
5 Wood Blocks
2 Bongos +
1 Snare Drum.
(Arrow notehead
for S.D.)
[Bongos]
S.D. drum
S.D. rim
[low to high]
[on drum]
[on rim]
4 Tom-toms
1 Bass Drum
[low to high]
2 Cymbals
1 Gong

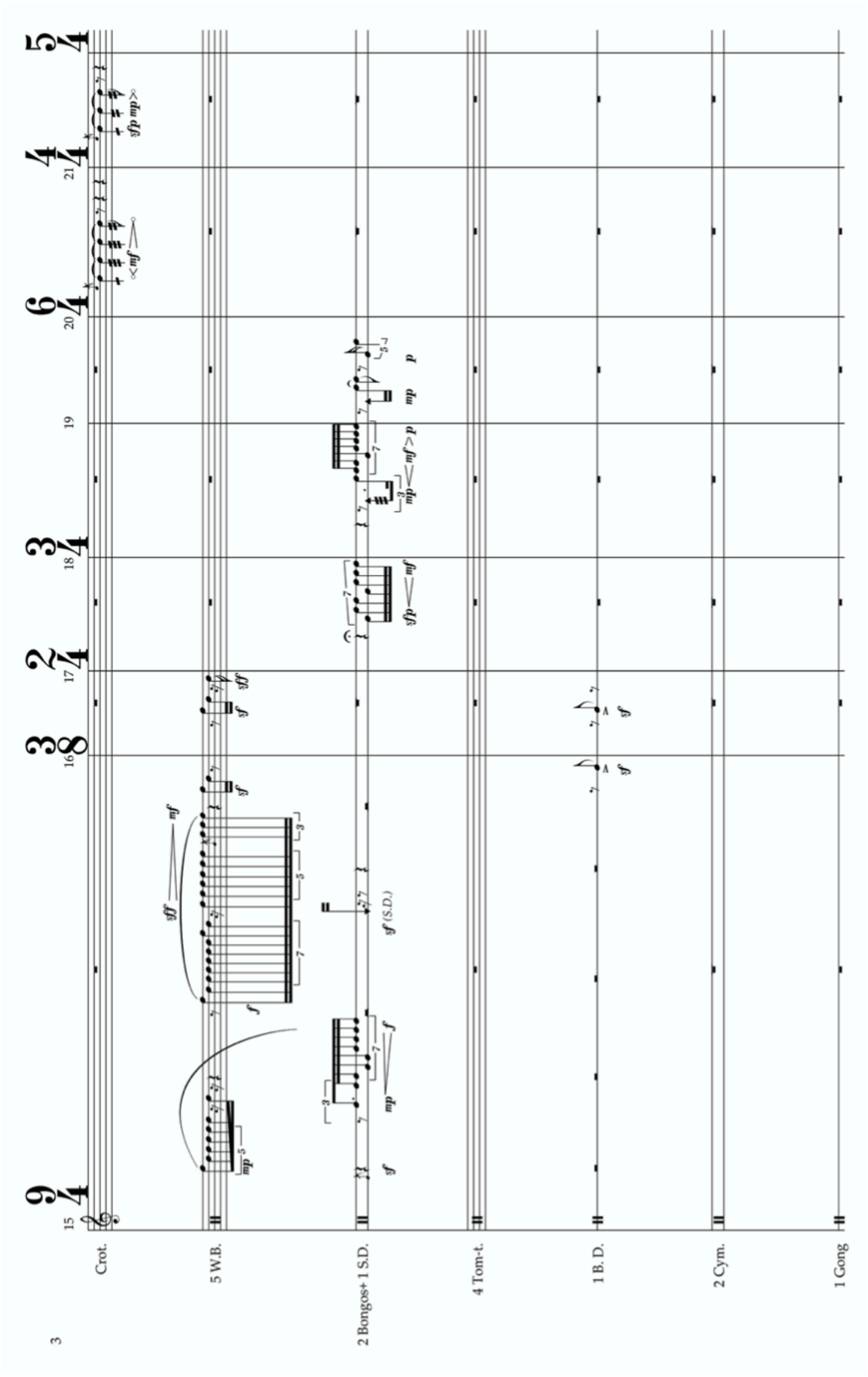
PUPA

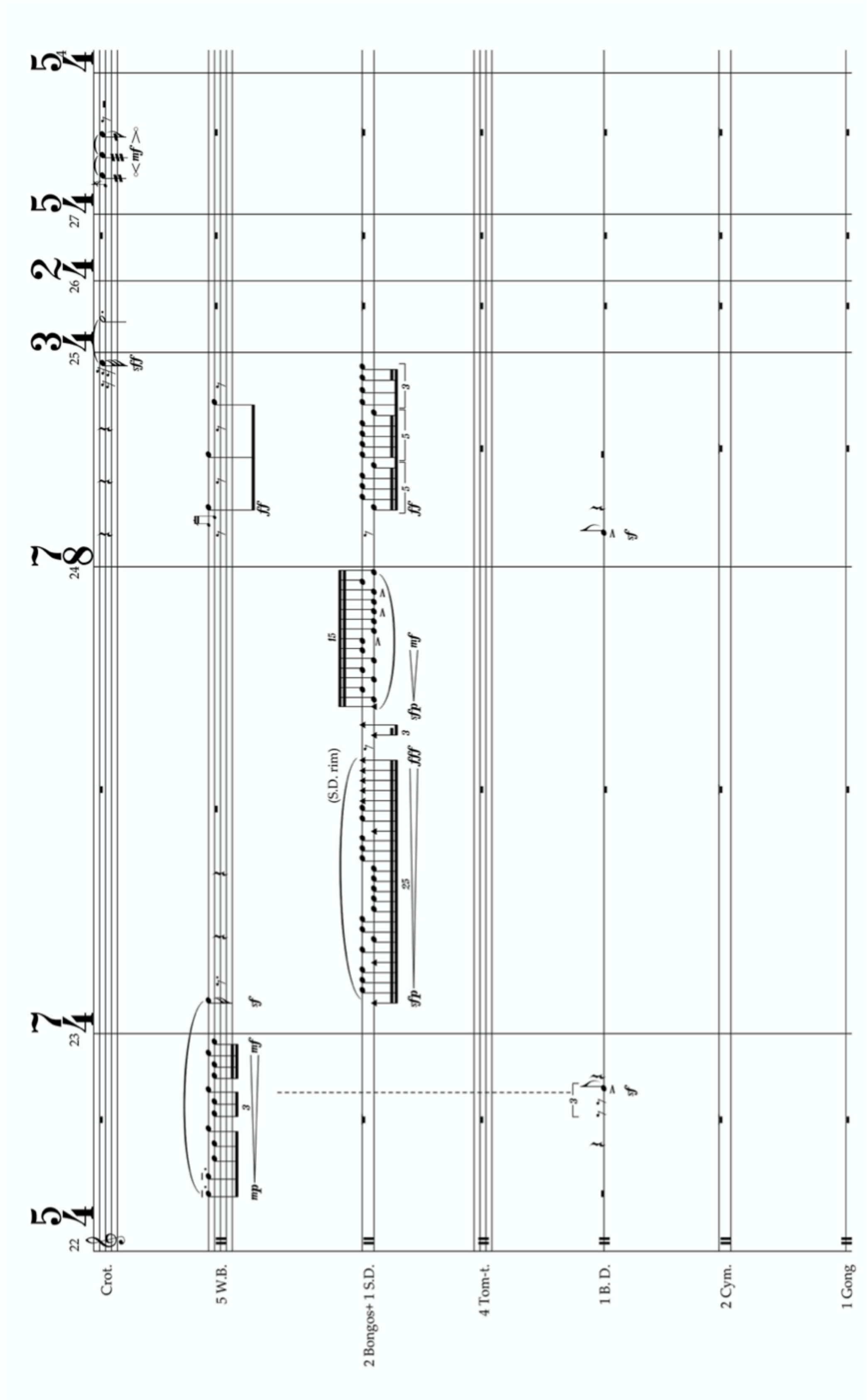
Tiange Zhou (2021)

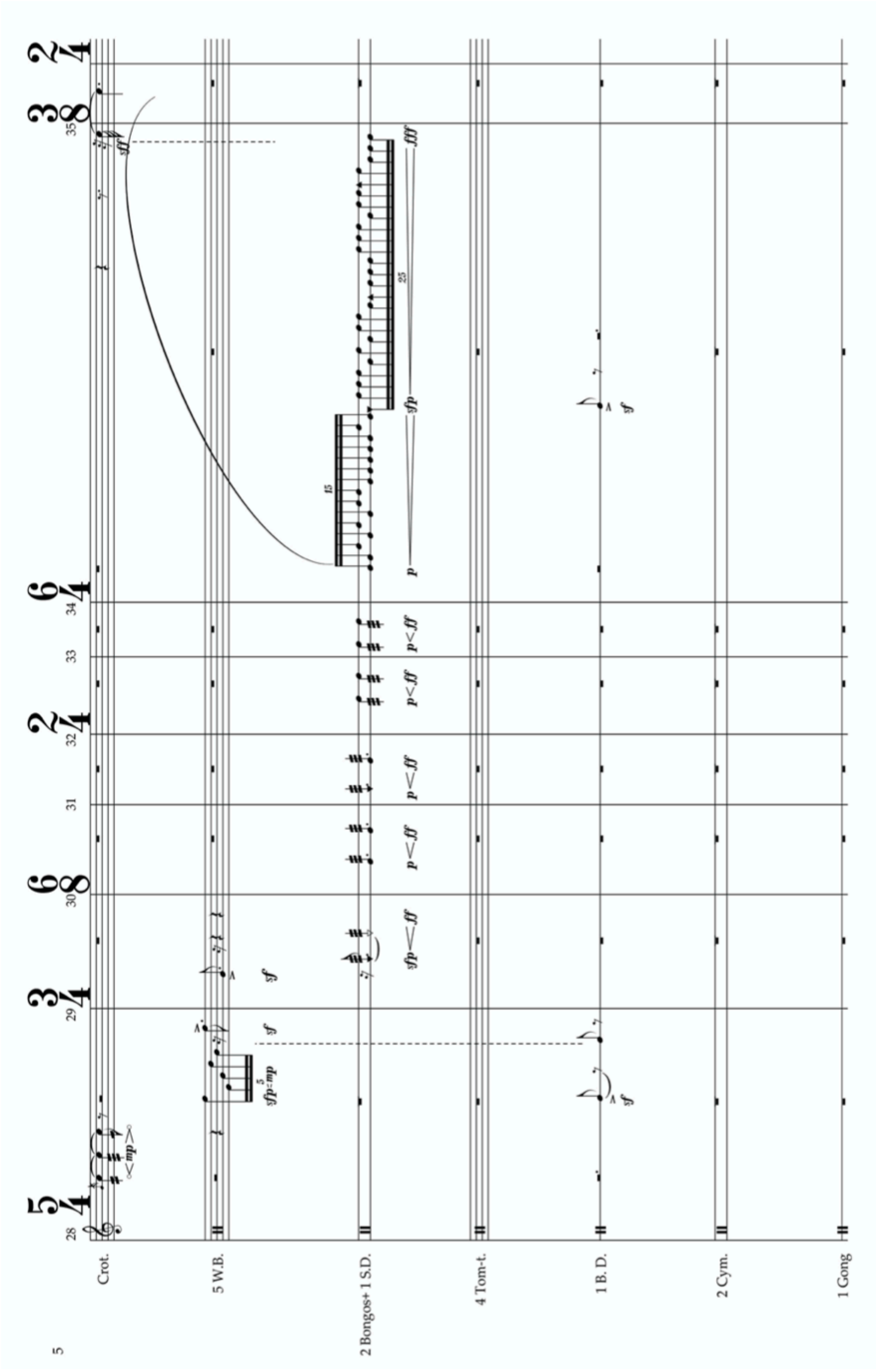


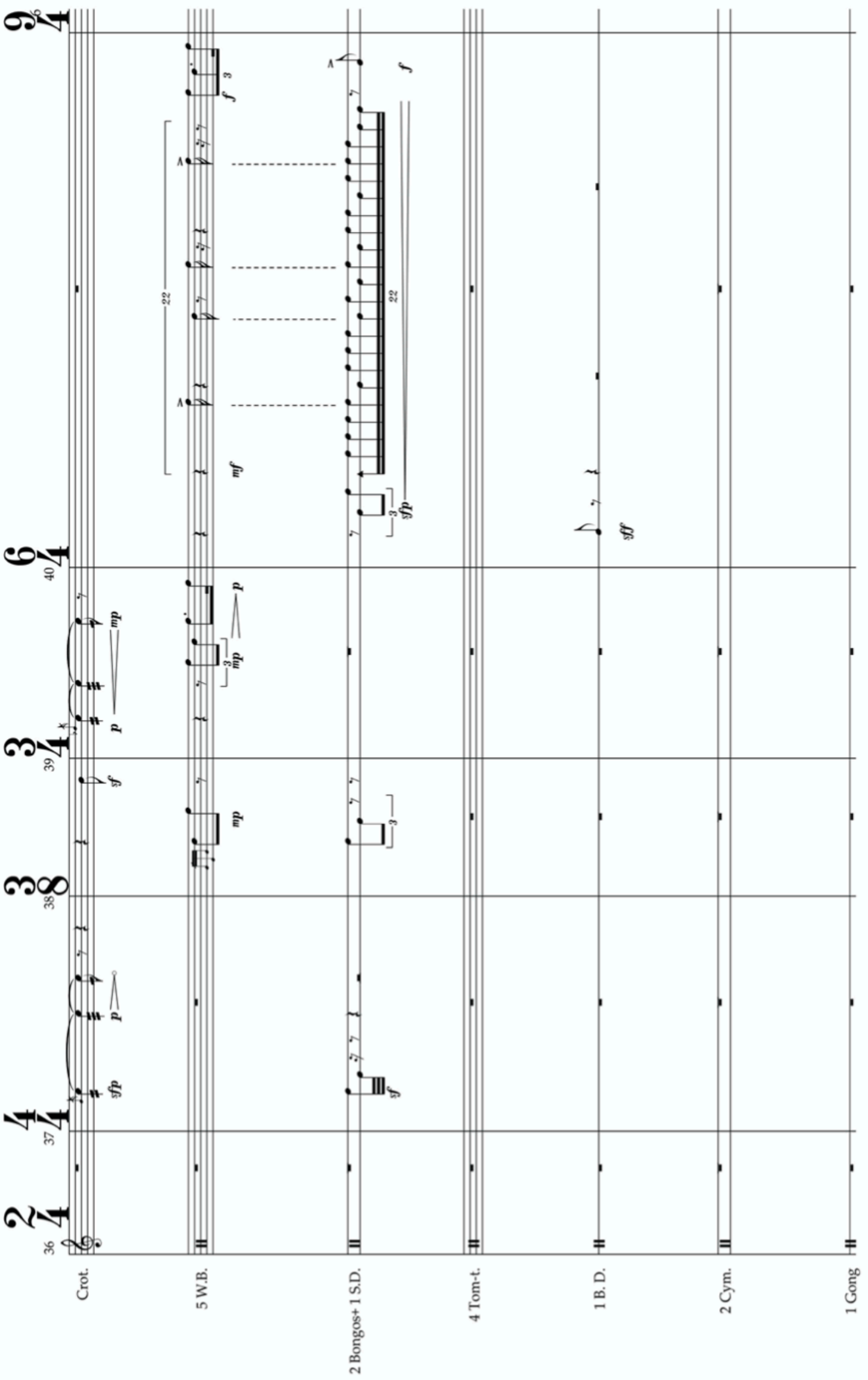
♩ = 60
A
Crotales [with plastic mallets]
5 Wood Blocks
2 Bongos + 1 Snare Drum. (Arrow notehead for S.D.)
4 Tom-toms
1 Bass Drum
2 Cymbals
1 Gong
[Foot pedal]
p
sfp < mp
sf

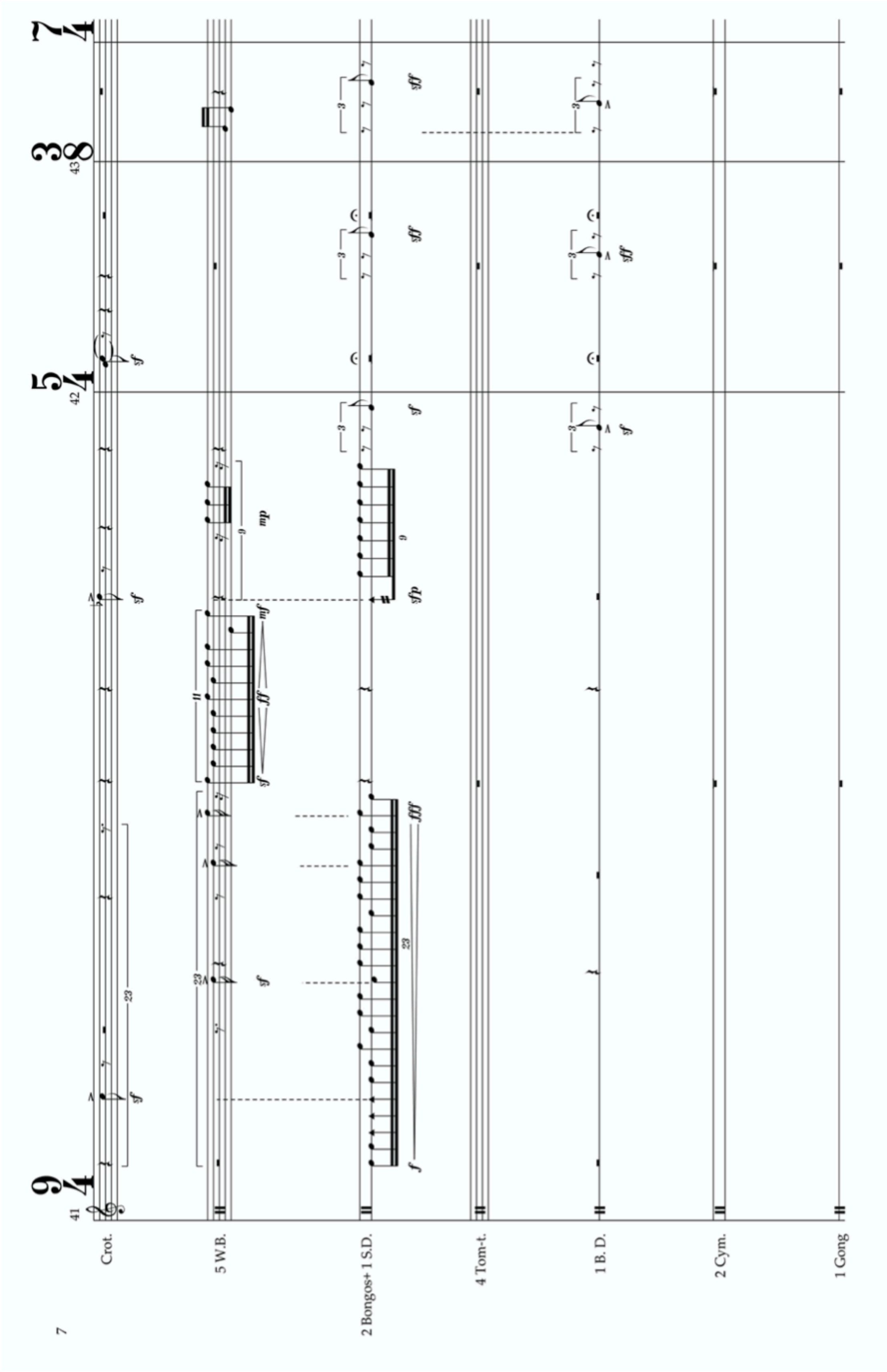

Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
8
9
10
11
12
13
14
6/4
3/8
2/4
4/4
5/4
3/4
4/4
9/4
mf
mp
mf
sf
p
mp
mf
sf
sfp
sf
p

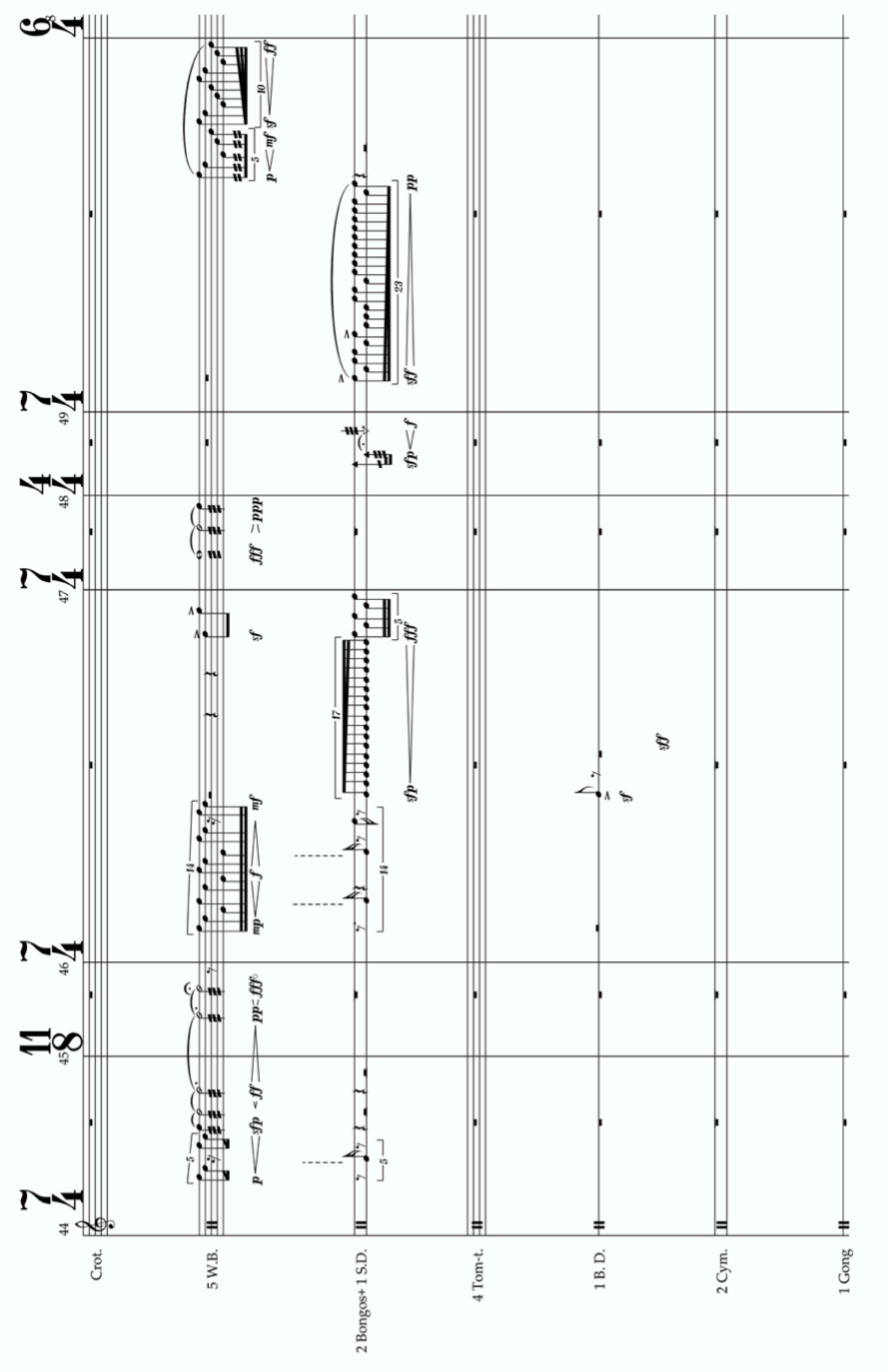

3
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
15
16
17
18
19
20
21
mp
f
sff
mf
sf
(S.D.)
sfp
mp
p
fp
sff

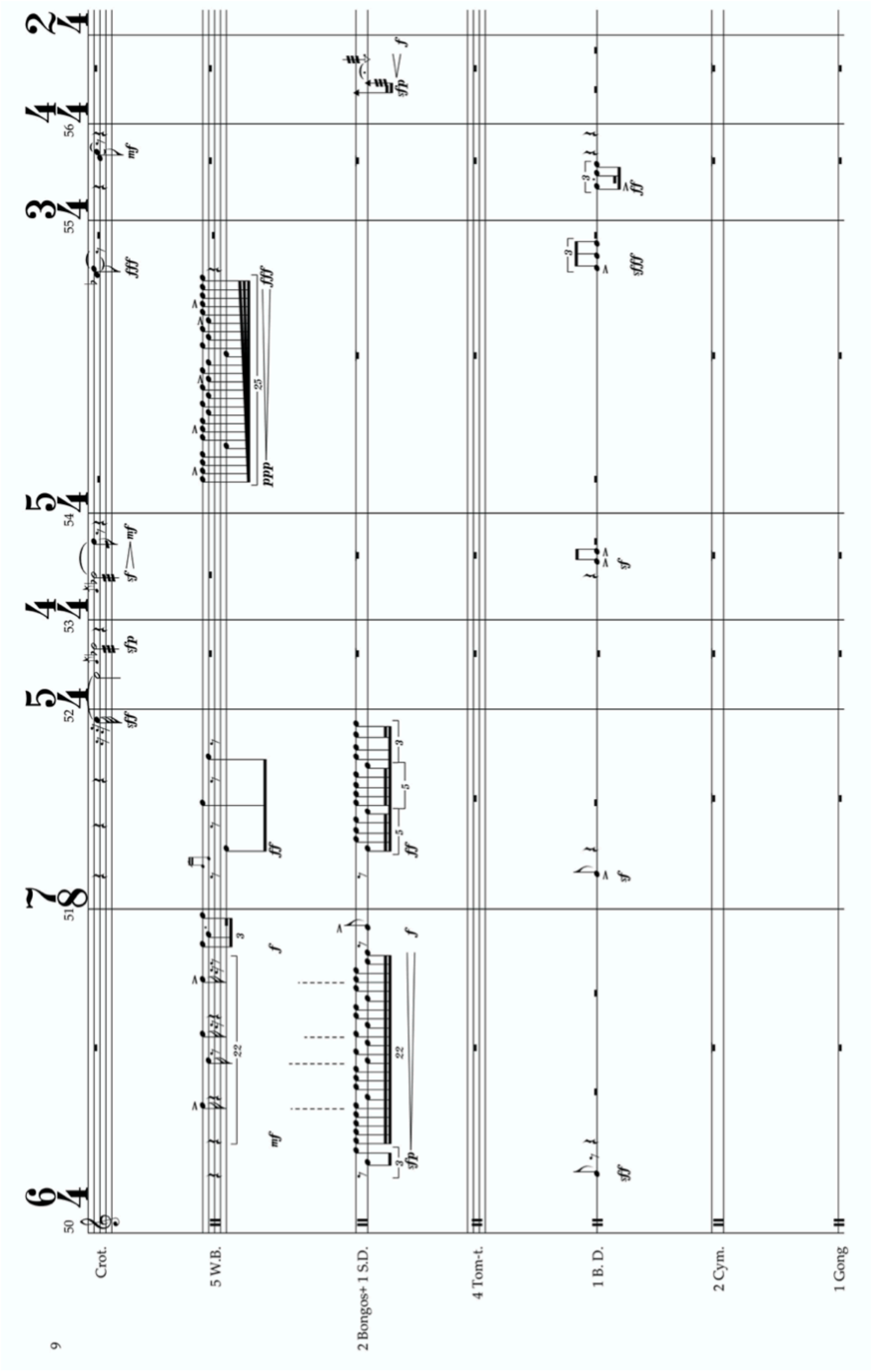

Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
22
23
24
25
26
27
(S.D. rim)
mp
mf
sf
sfp
fff
ff
sff
15
25

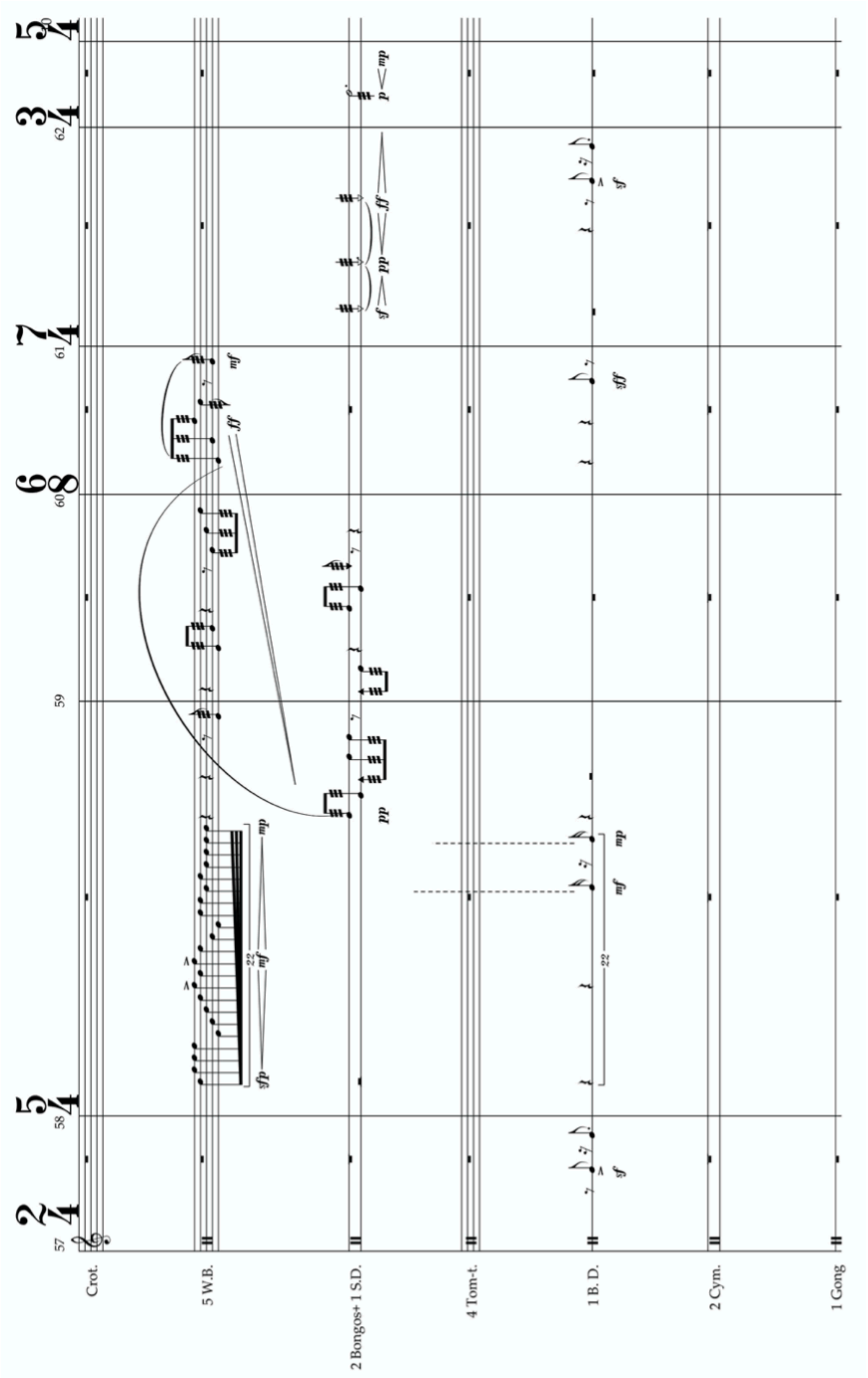

5
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
28
29
30
31
32
33
34
35
5/4
3/4
6/8
2/4
6/4
3/8
2/4
mp
sfp=mp
sf
sf
sf
sfp<ff
p<ff
p<ff
p<ff
p<ff
p
sfp
fff
sff
15
25
5

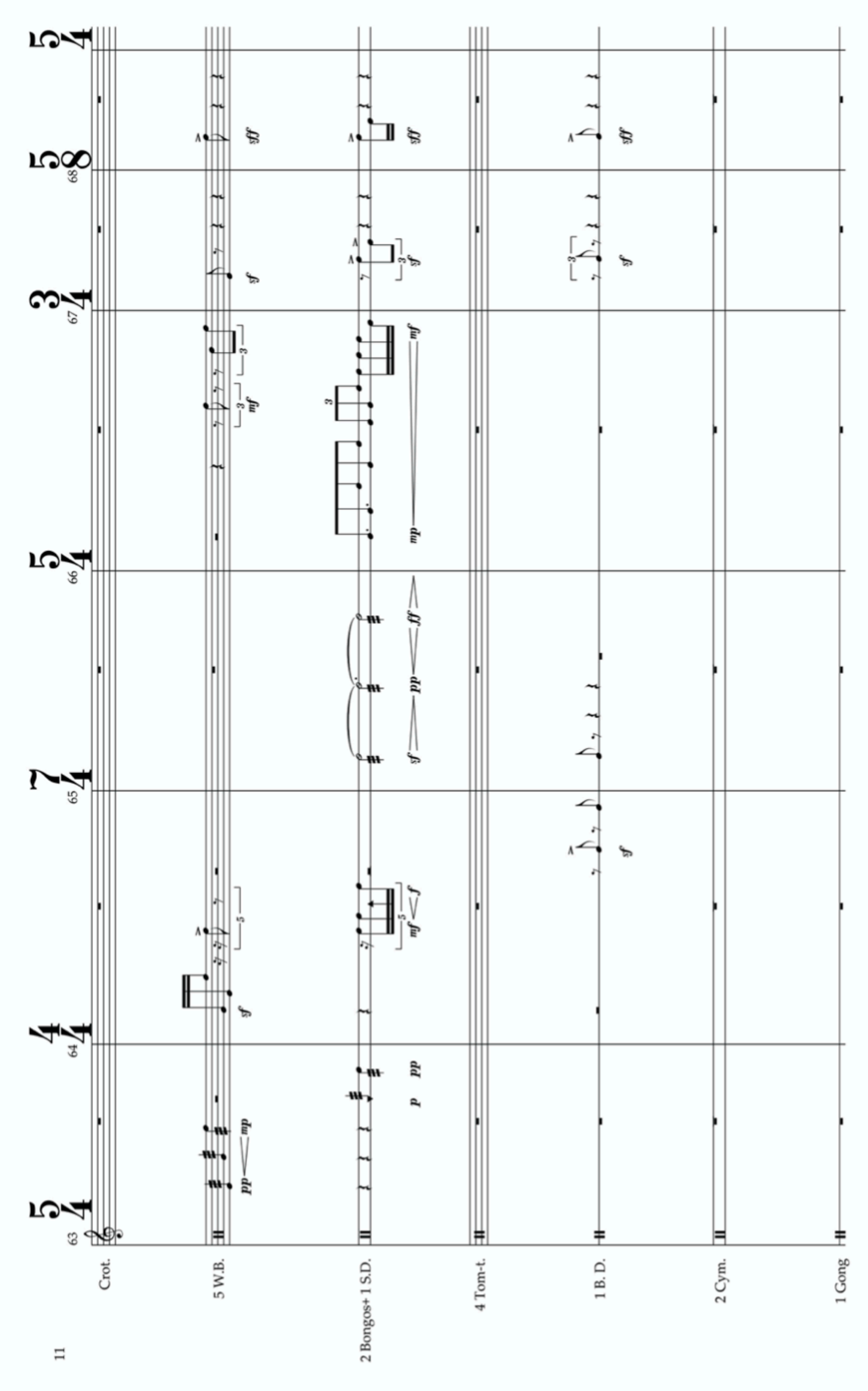

Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
36
37
38
39
40
2/4
4/4
3/8
3/4
6/4
9/4
sfp
p
sf
mp
mf
f
sff
22
3

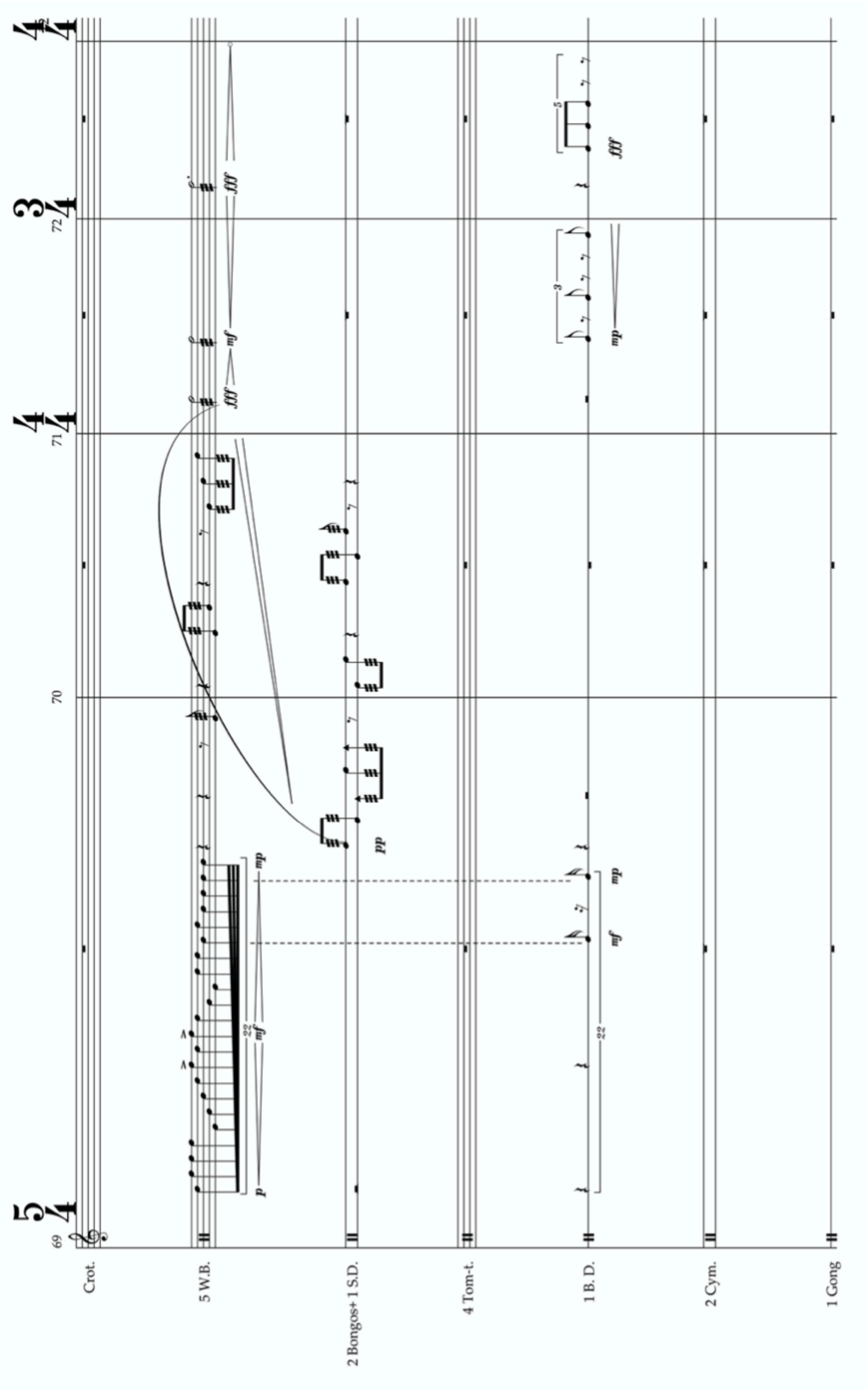

7
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
41
42
43
9/4
5/4
3/8
7/4
23
11
9
3
sf
ff
mf
mp
sfp
f
fff
sff

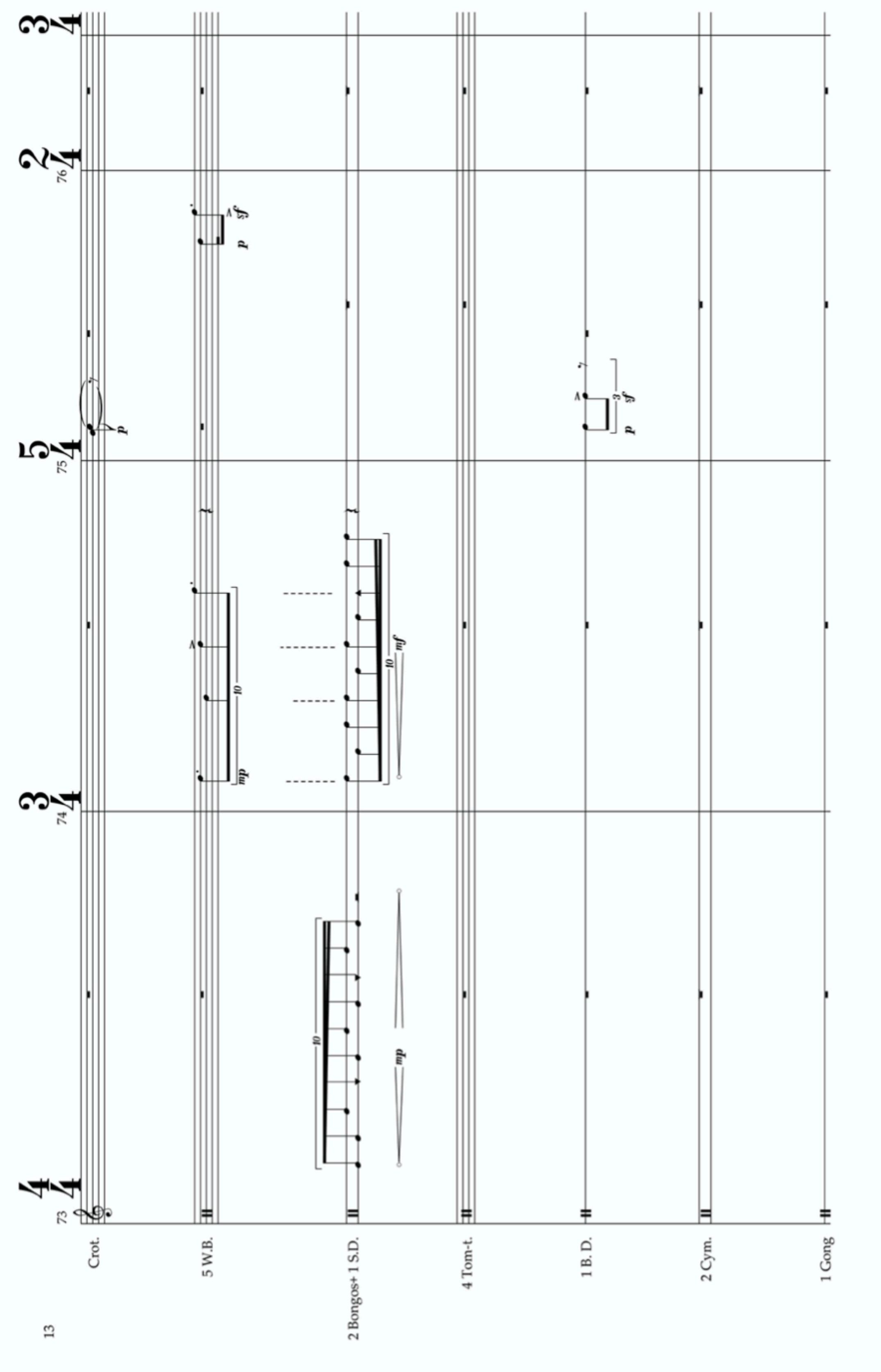

Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
44
7/4
45
11/8
46
7/4
47
7/4
48
4/4
49
7/4
6/4
p
sfp
ff
pp
fff
mp
f
mf
sf
sfp
fff
ppp
sfp
f
sff
pp
p
mf
sf
ff
5
14
17
23
10

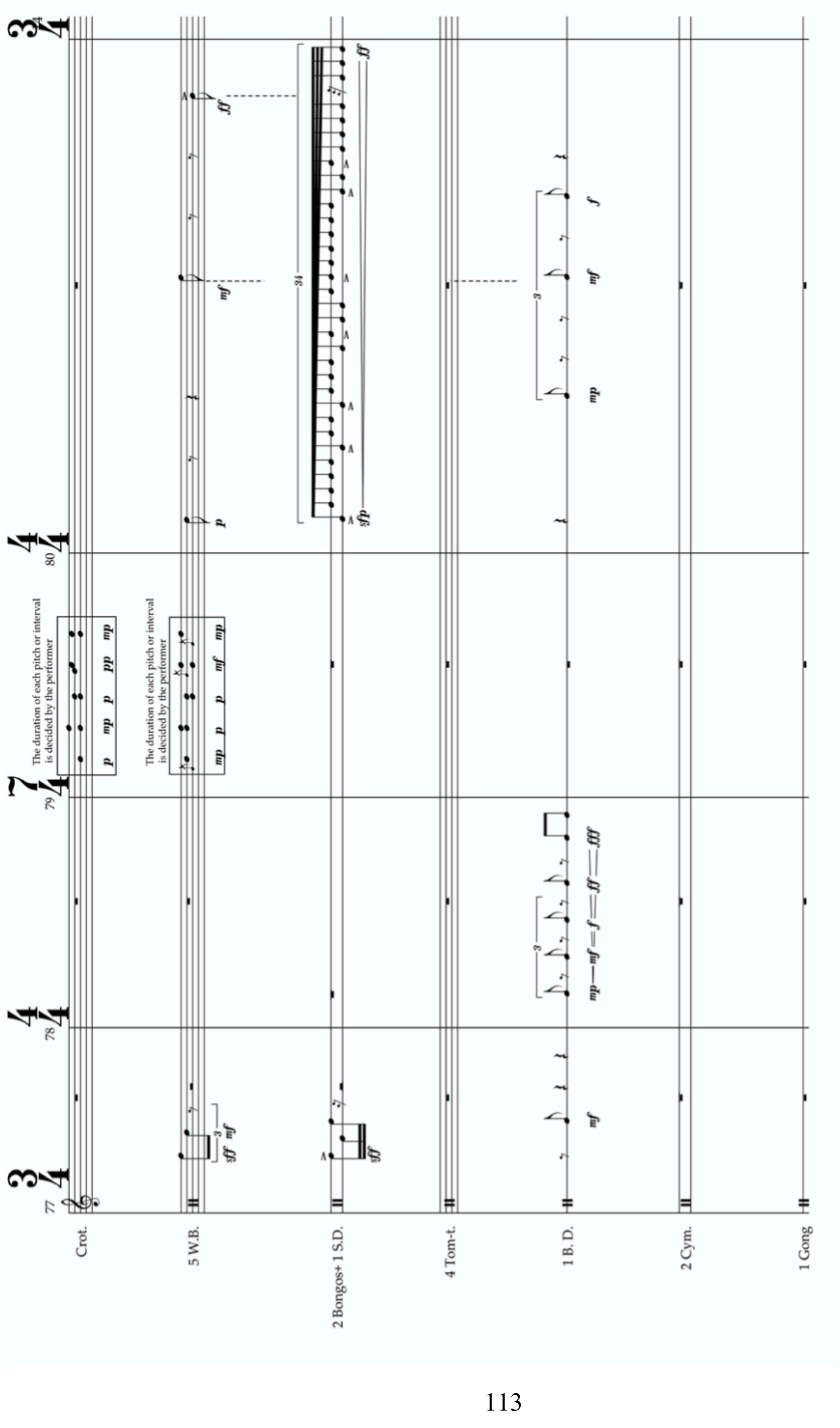

9
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
50
51
52
53
54
55
56
22
25
sff
mf
f
sfp
ff
sfp
sf
mf
ppp
fff
sfff
ff
sfp
f

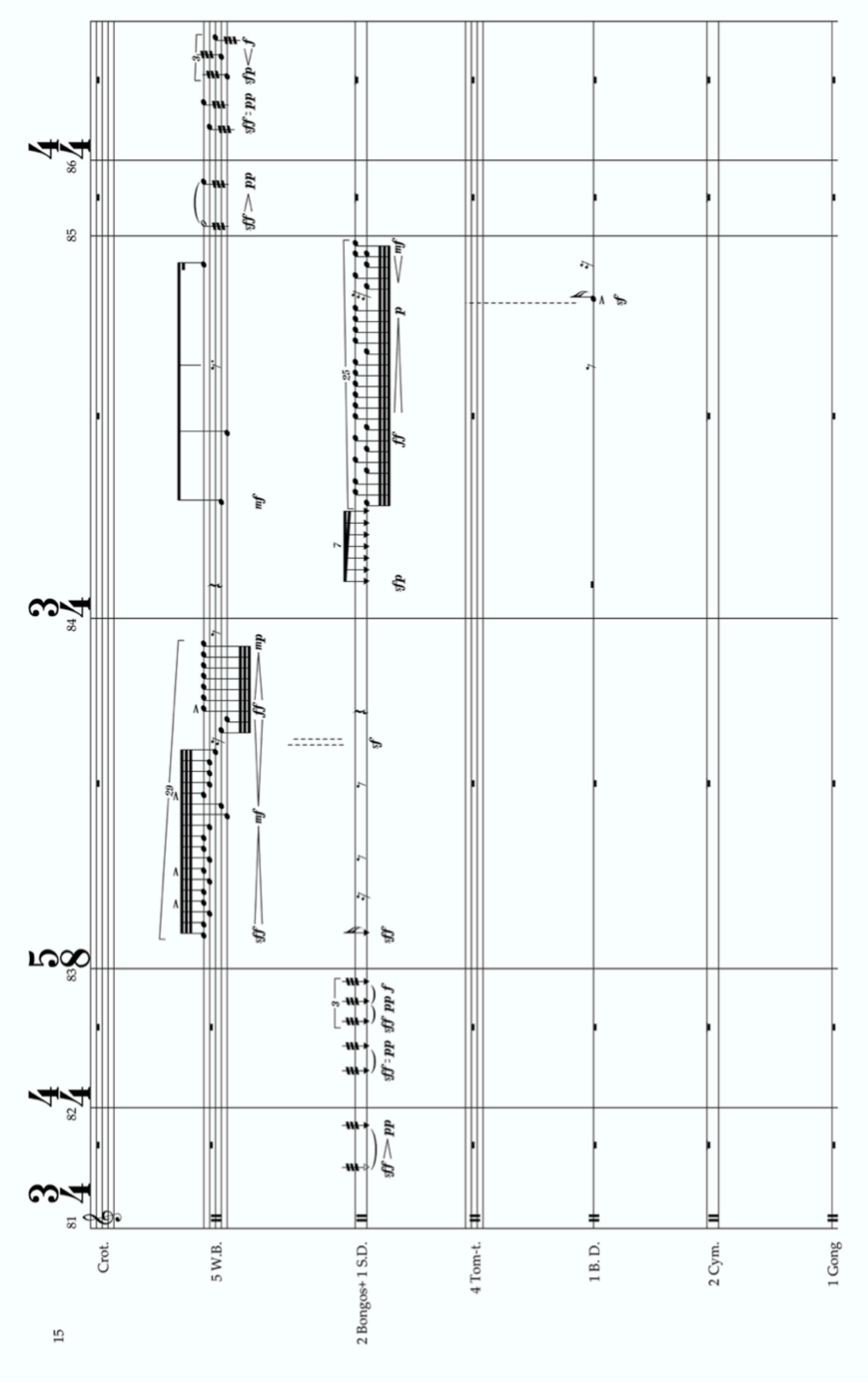

Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
57
58
59
60
61
62
2/4
5/4
6/8
7/4
3/4
5/4
sf
sfp
22
mf
mp
pp
ff
sff
pp
p

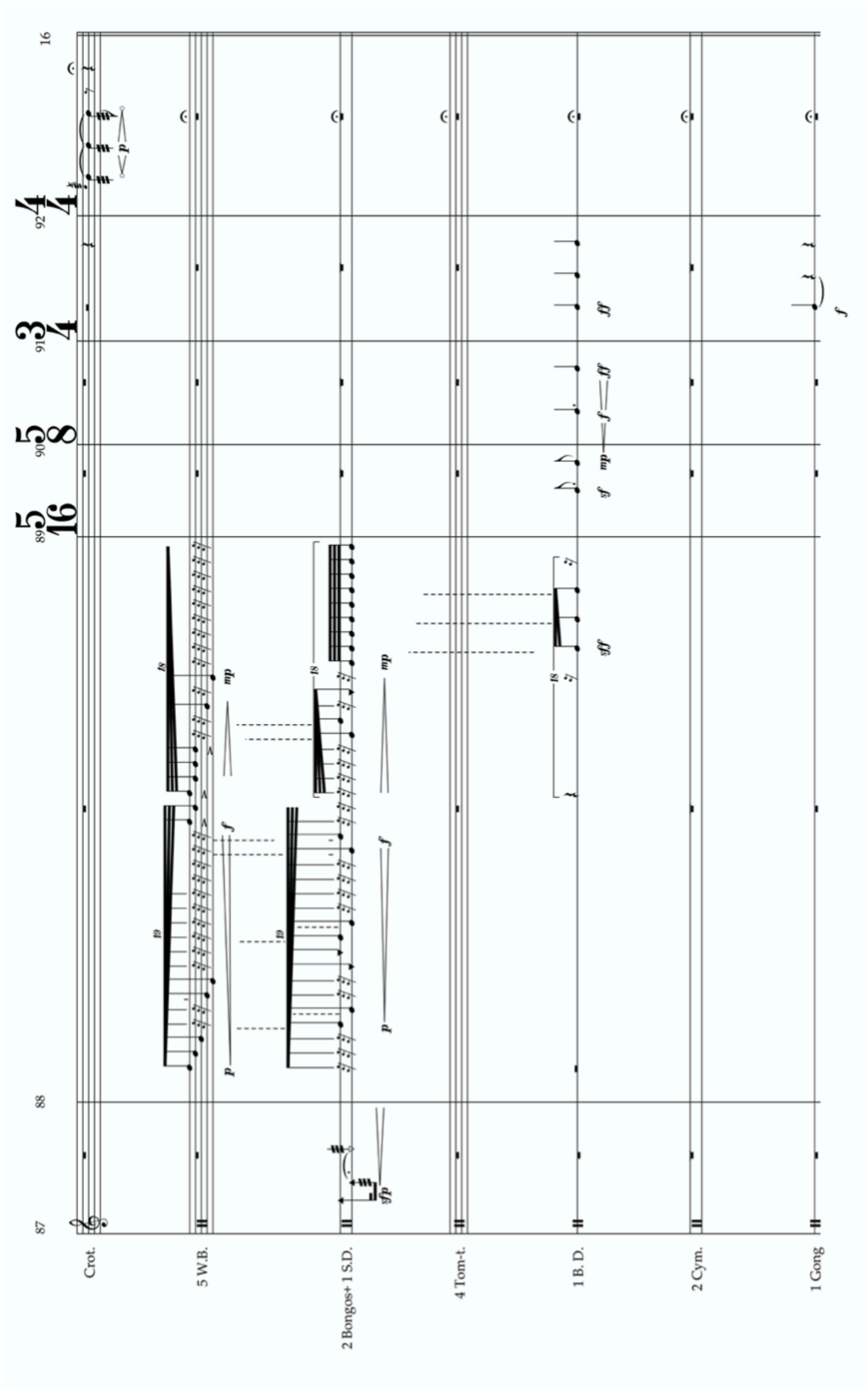

11
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
63
64
65
66
67
68
pp
mp
p
pp
sf
mf
f
sf
sf
pp
ff
mp
mf
mf
sf
sf
sf
sff
sff
sff

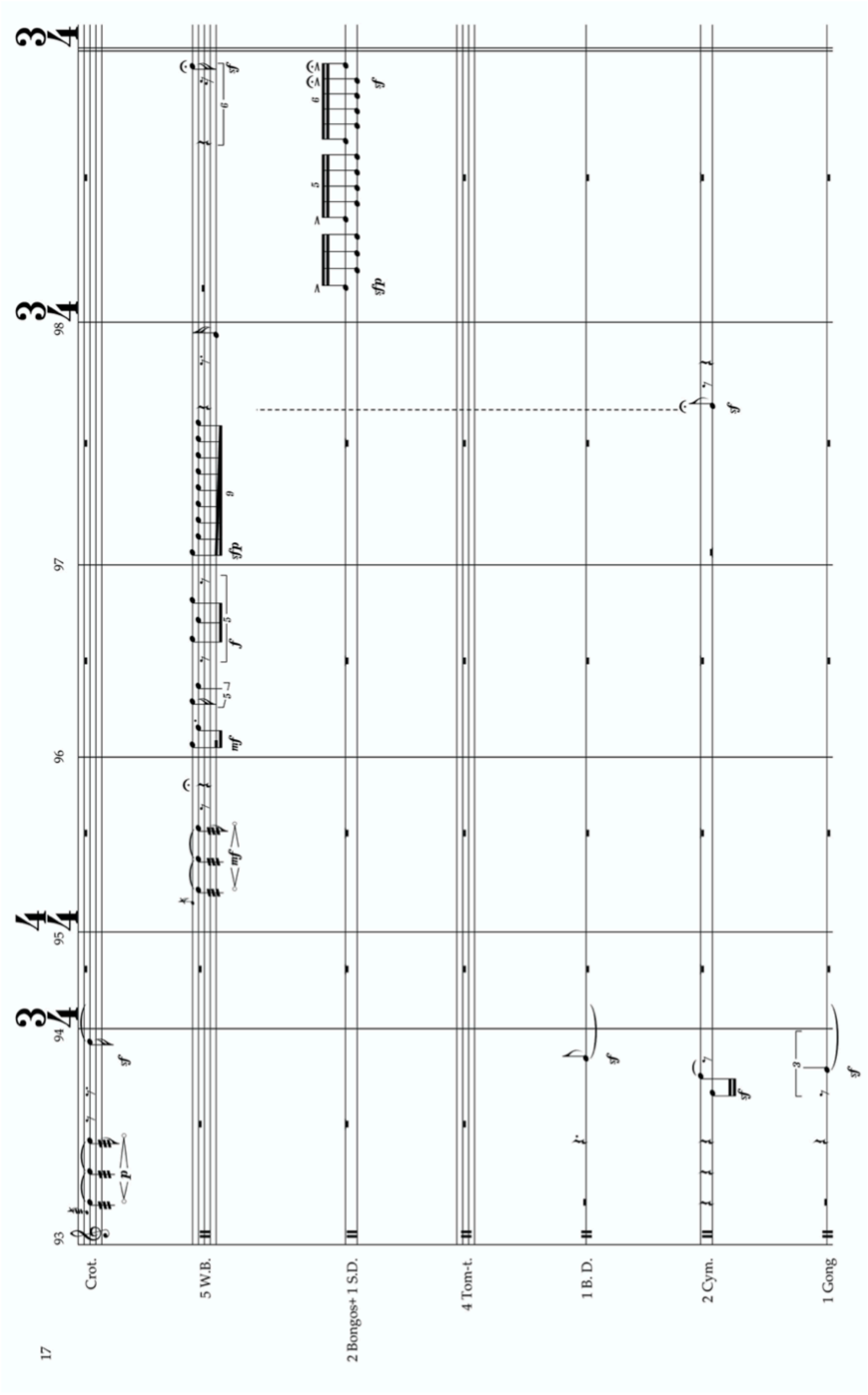

Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
69
70
71
72
5/4
4/4
3/4
4/4
p
mf
mp
22
pp
fff
mf
fff
mp
3
5
fff

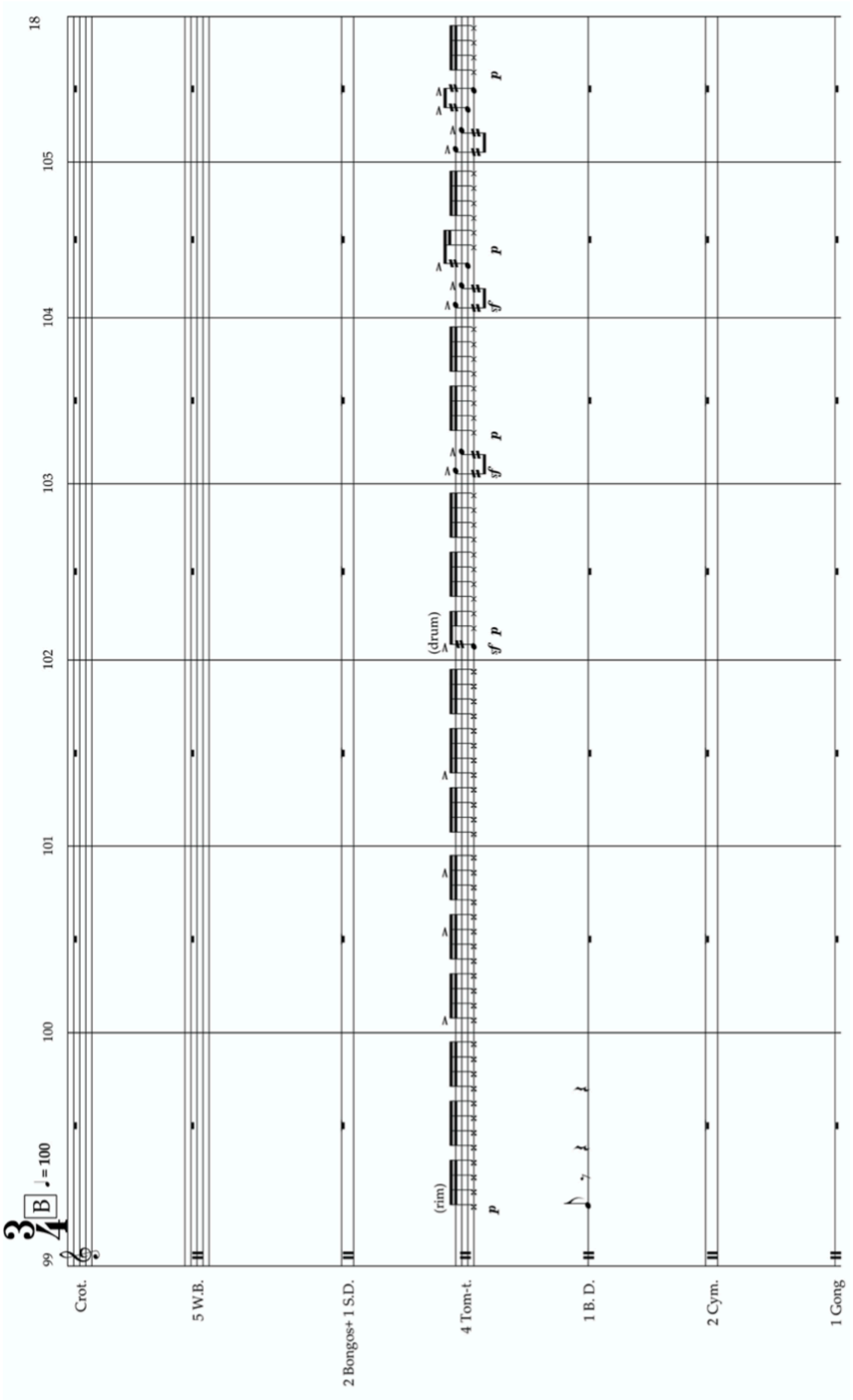

13
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
73
74
75
76
10
mp
mf
p
sf

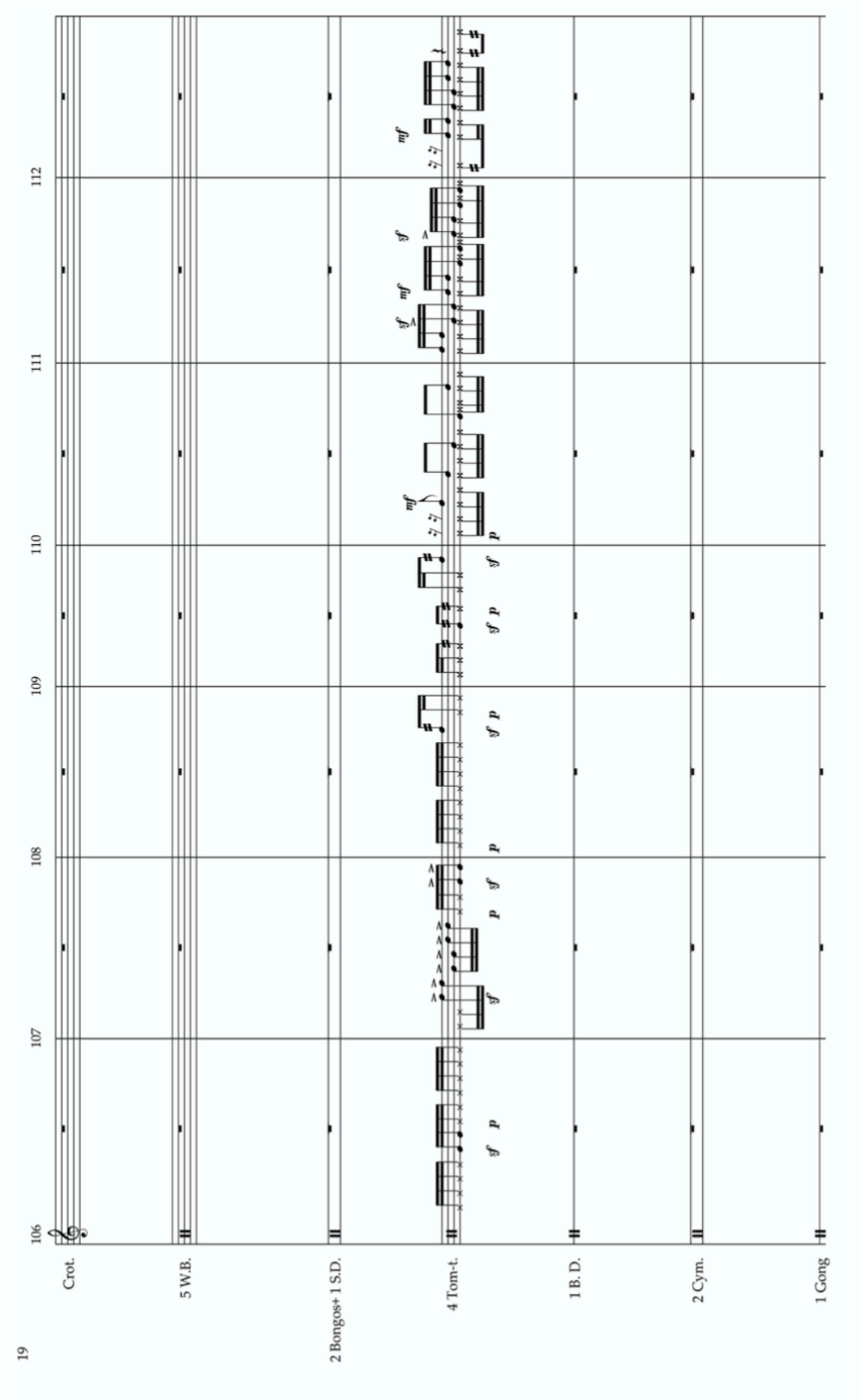

Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
77
78
79
80
The duration of each pitch or interval is decided by the performer
The duration of each pitch or interval is decided by the performer
sff
mf
mp—mf—f—ff—fff
p
mp
pp
sfp
ff
34
3

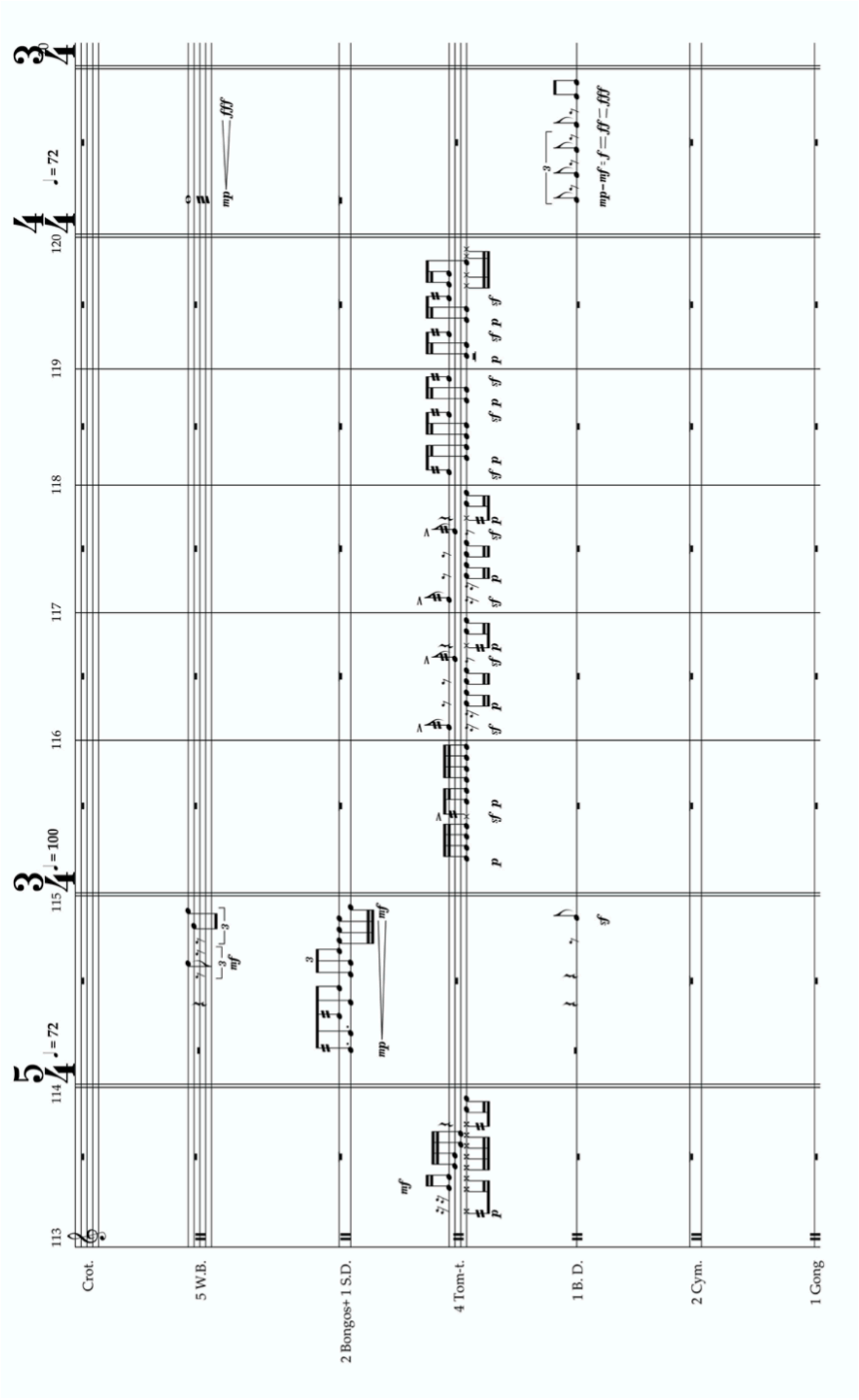

15
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
81
82
83
84
85
86
3/4
4/4
5/8
3/4
4/4
sff > pp
sff : pp
sff pp f
3
sff
mf
ff
mp
29
sf
sfp
7
25
ff
p
mf
sff > pp
sff : pp
sfp < f

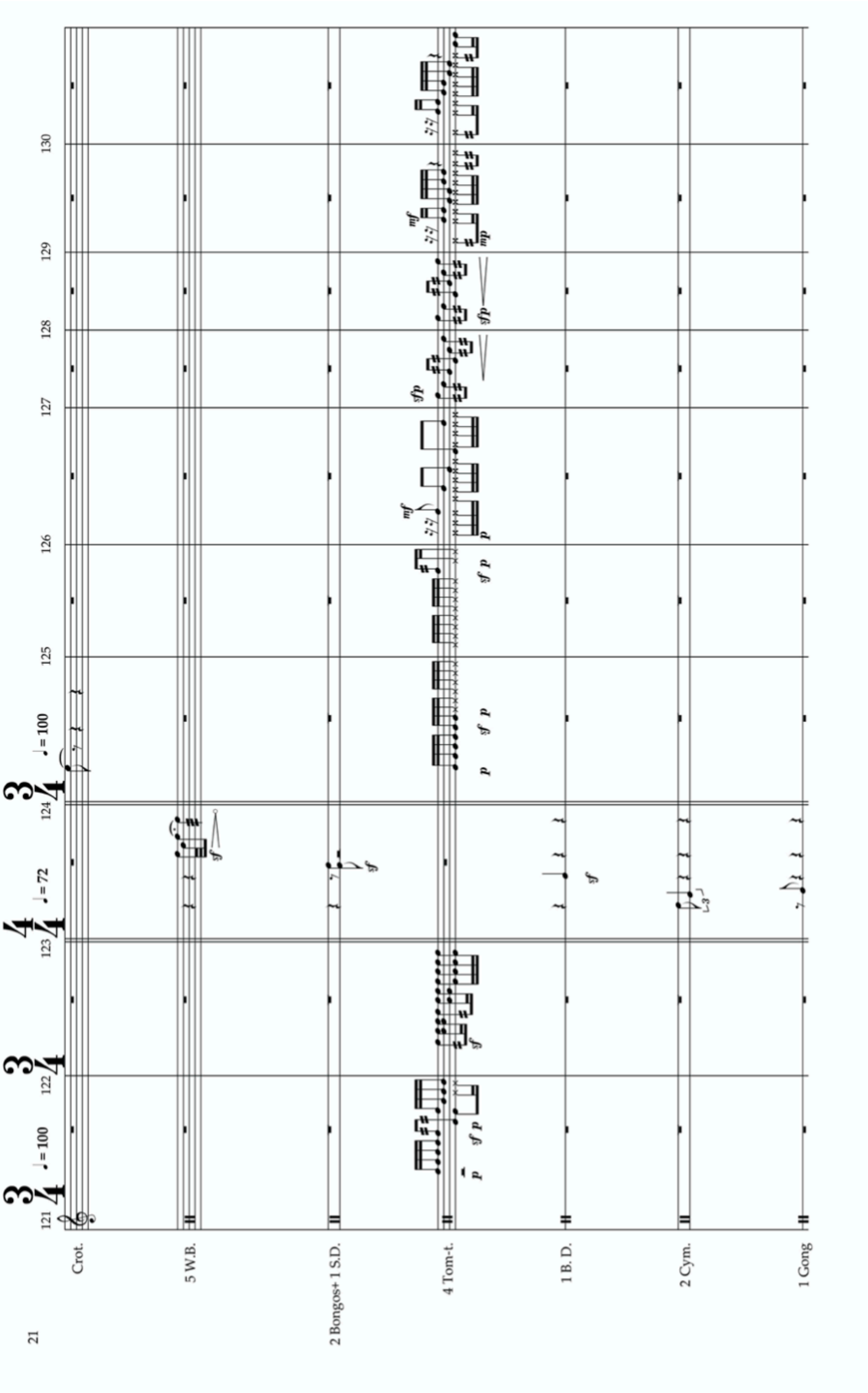

16
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
87
88
89
90
91
92
5/16
5/8
3/4
4/4
sfp
p
f
mp
19
18
sff
sf
mp
f
ff
ff
f
p

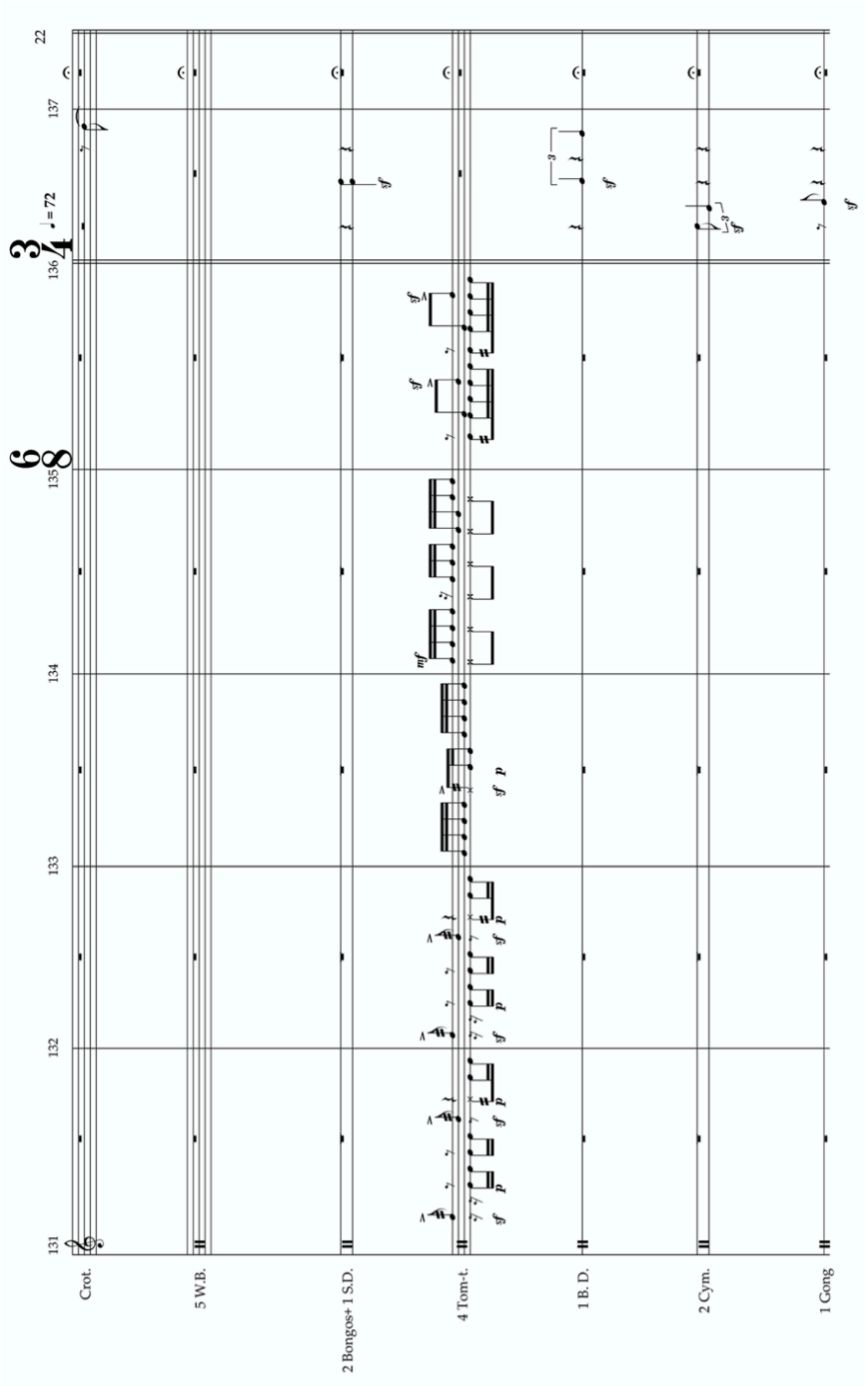

17
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
93
94
95
96
97
98
p
sf
mf
f
sfp
3
5
6
9

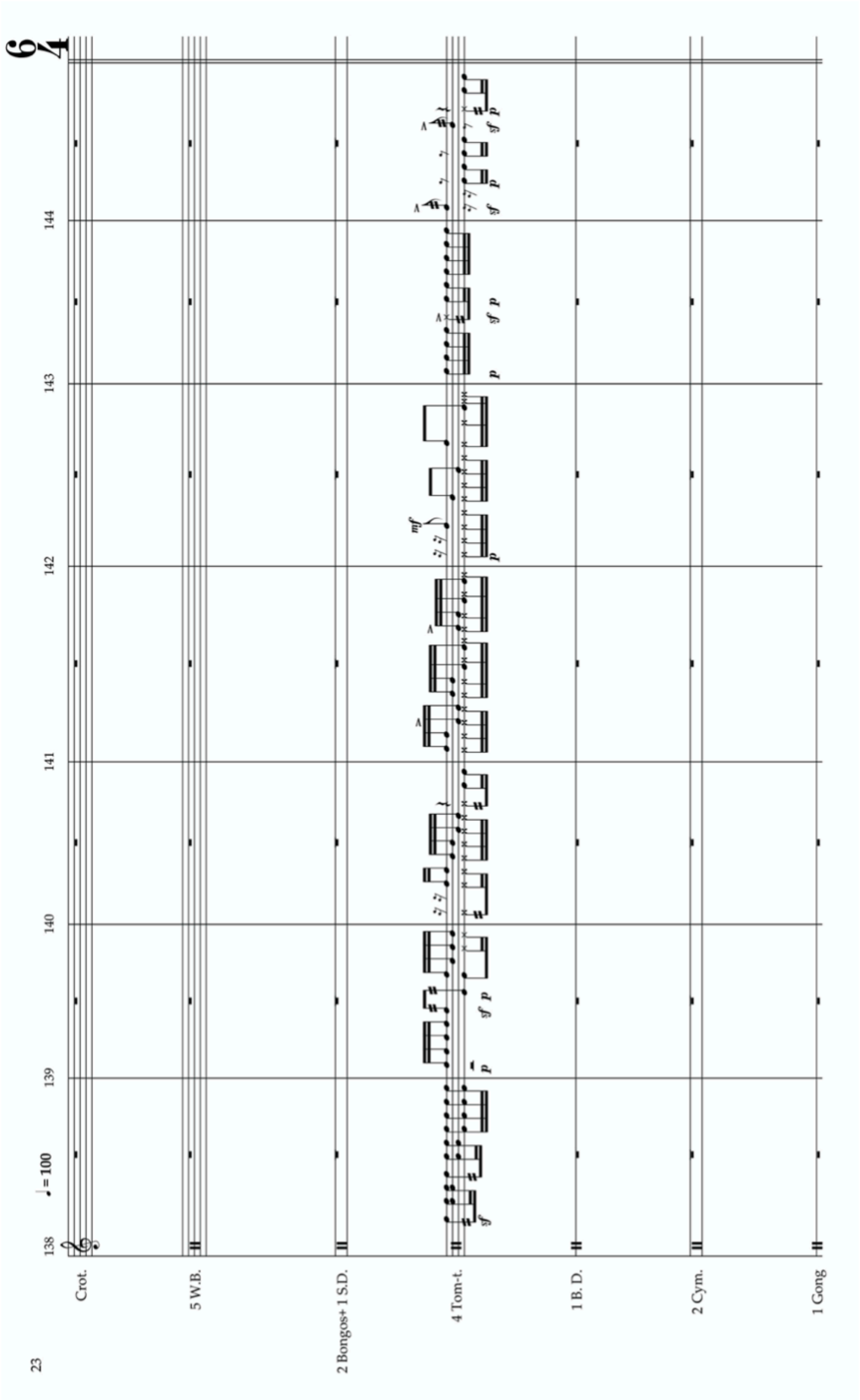

18
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
99
3/4
B
♩= 100
(rim)
p
100
101
102
(drum)
sf p
103
sf p
104
sf p
105
p

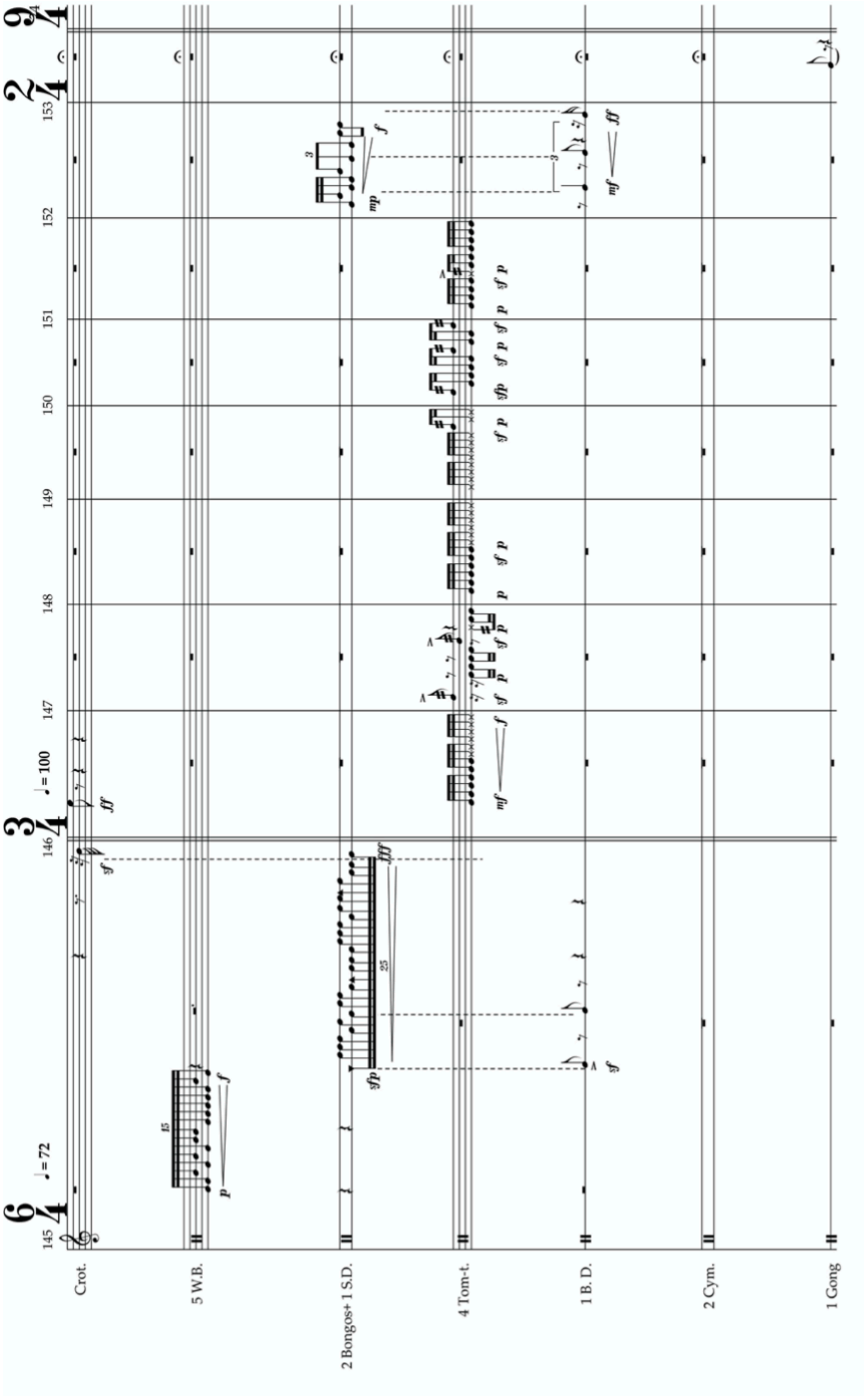

19
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
106
107
108
109
110
111
112
sf p
sf
p
sf
p
sf p
sf p
sf p
mf
sf
mf
sf
mf

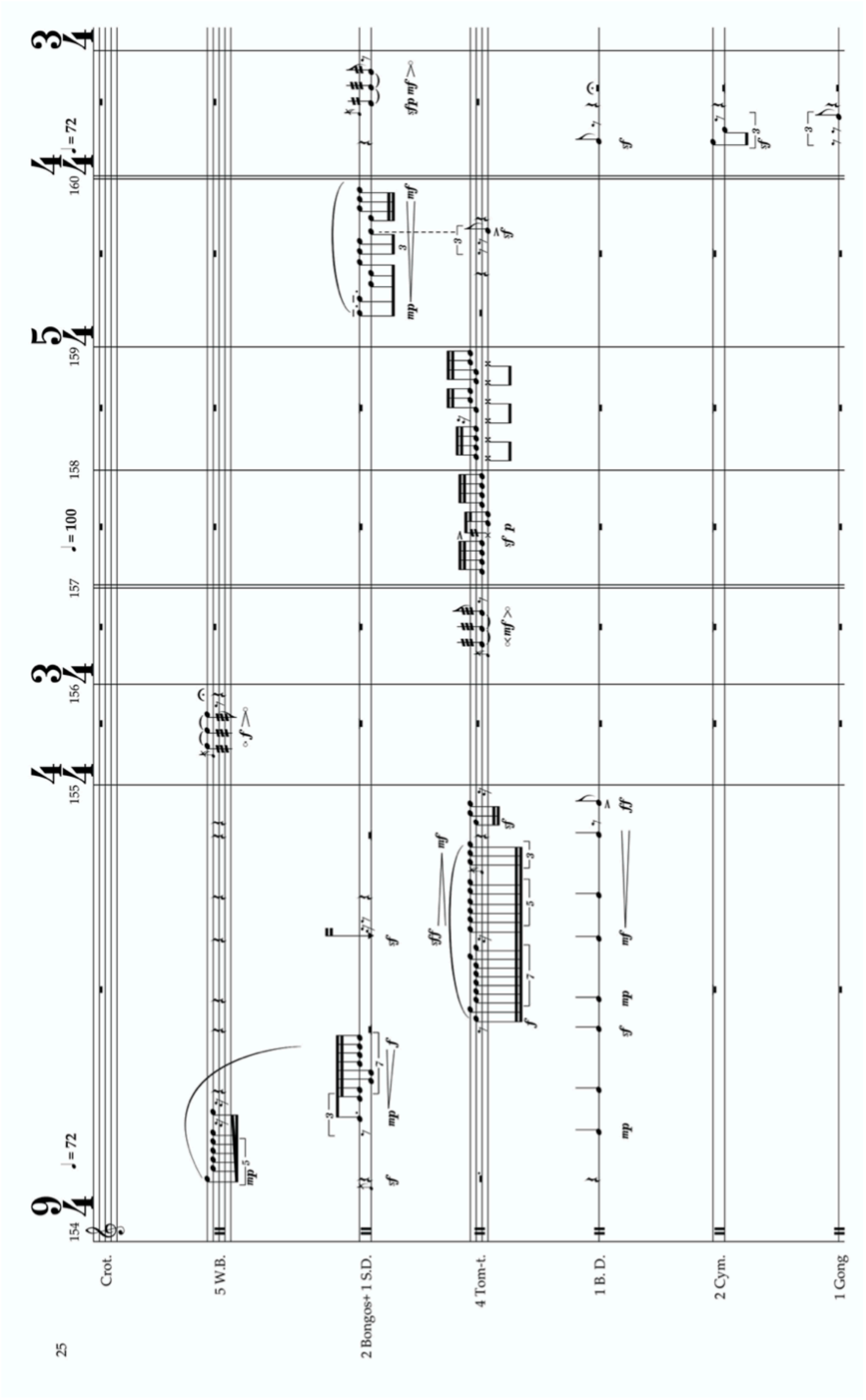

Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
113
114
115
116
117
118
119
120
♩= 72
♩= 100
♩= 72
mf
mp
mf
sf
p
sf p
mp–mf
f
ff
fff

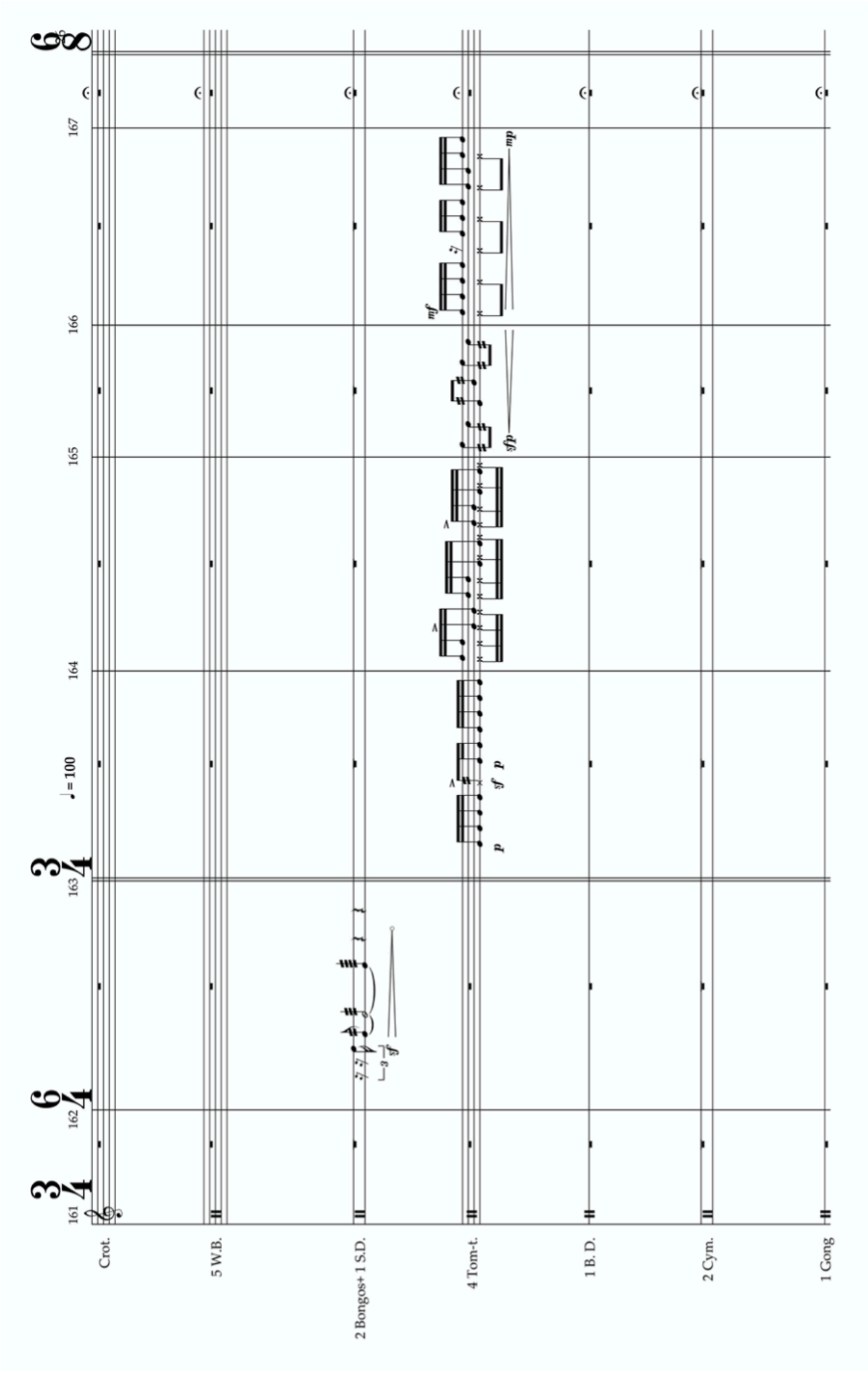

21
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
121
♩= 100
122
123
♩= 72
124
♩= 100
125
126
127
128
129
130
p
sf p
sf
sf p
mf
sfp
mp

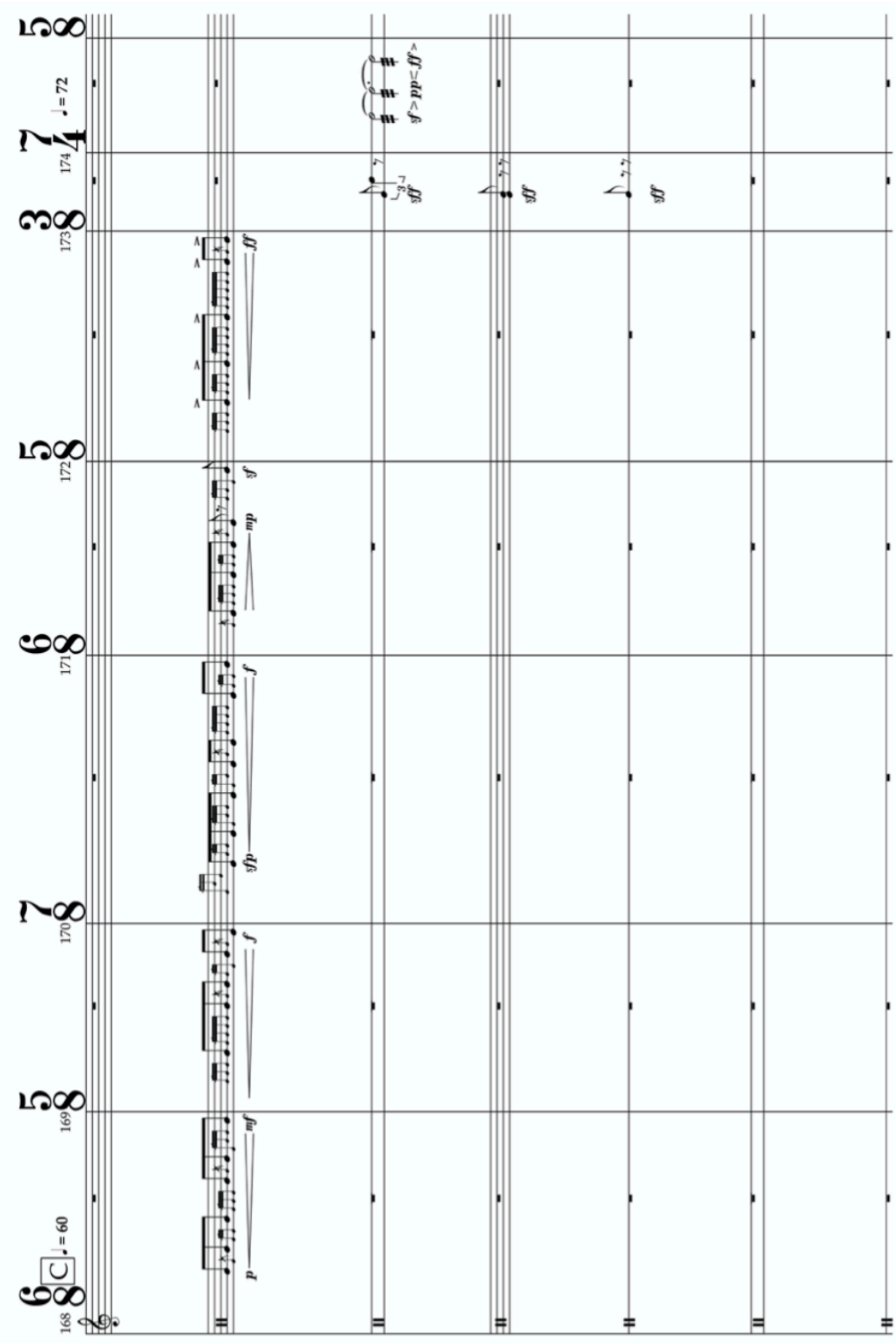

22
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
131
132
133
134
135
136
137
6/8
3/4
♩= 72
sf
p
mf
3

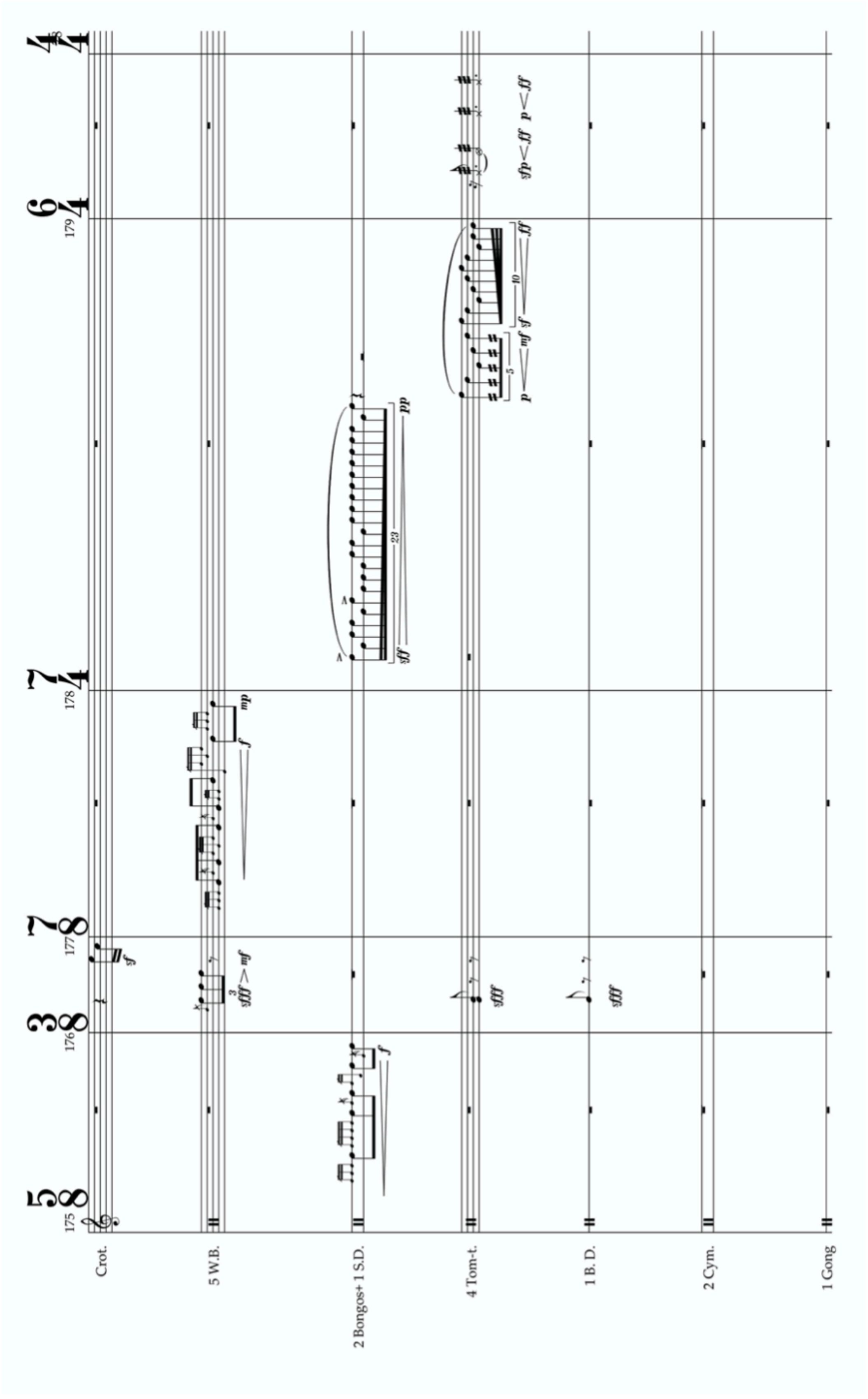

23
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
♩ = 100
138
139
140
141
142
143
144
6/4
sf
p
sf p
mf
sf p
sf p
sf p

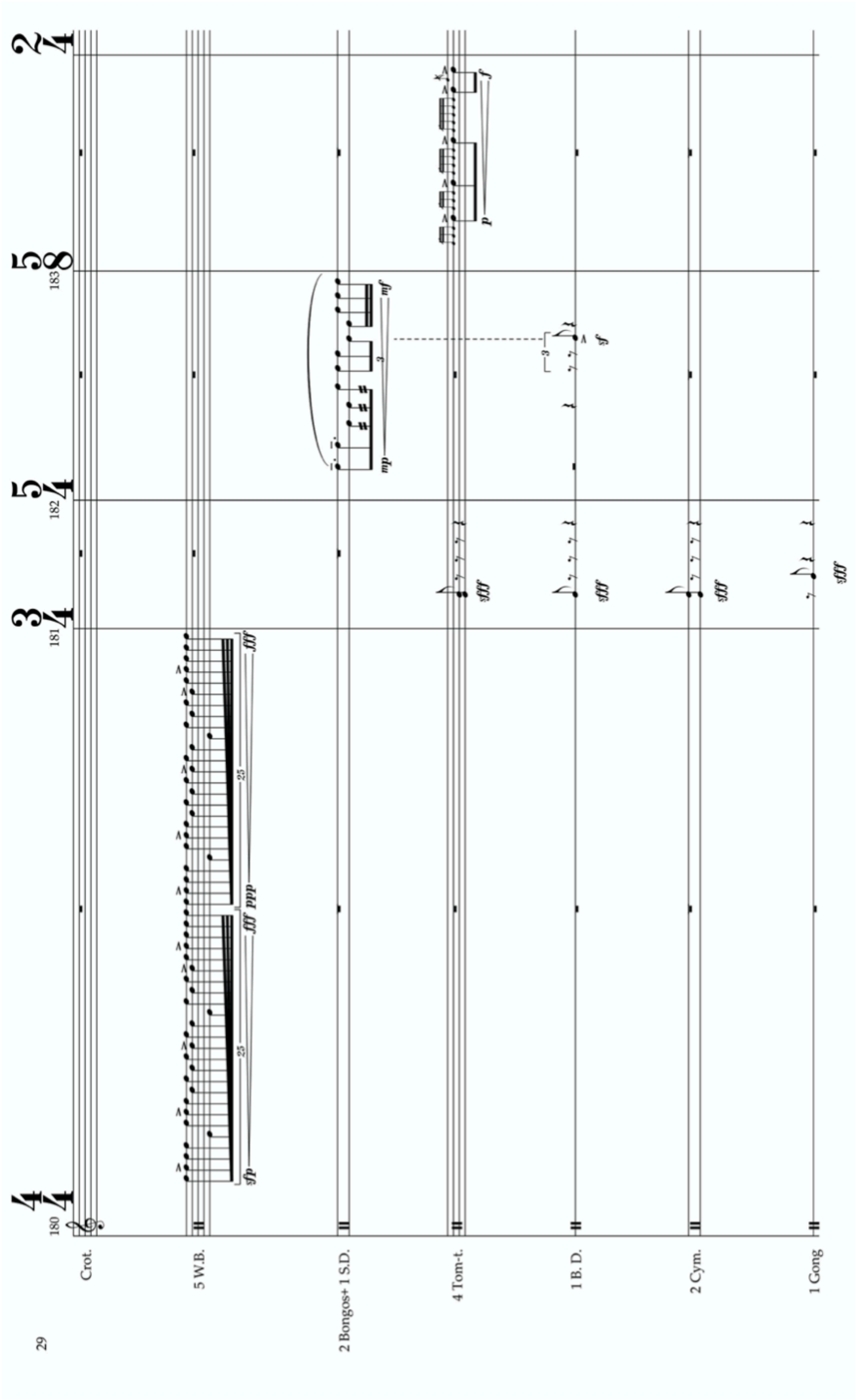

Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
145
♩ = 72
146
♩ = 100
147
148
149
150
151
152
153
15
25
3
p
f
sfp
sf
fff
ff
mf
mp
sfp
sf p

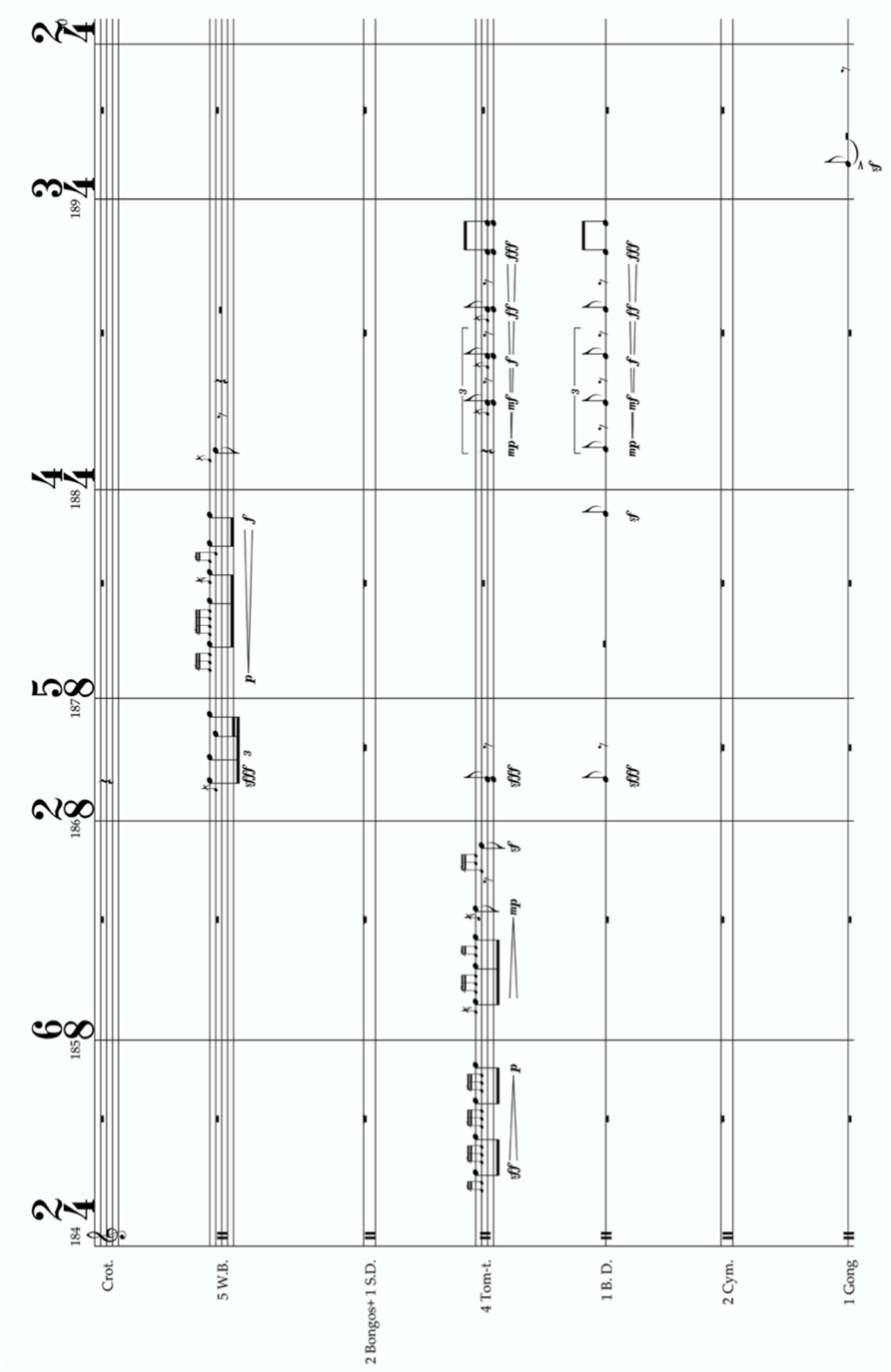

25
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
154
155
156
157
158
159
160
♩ = 72
♩ = 100
♩. = 72
mp
f
sf
mf
sff
ff
sfp
p

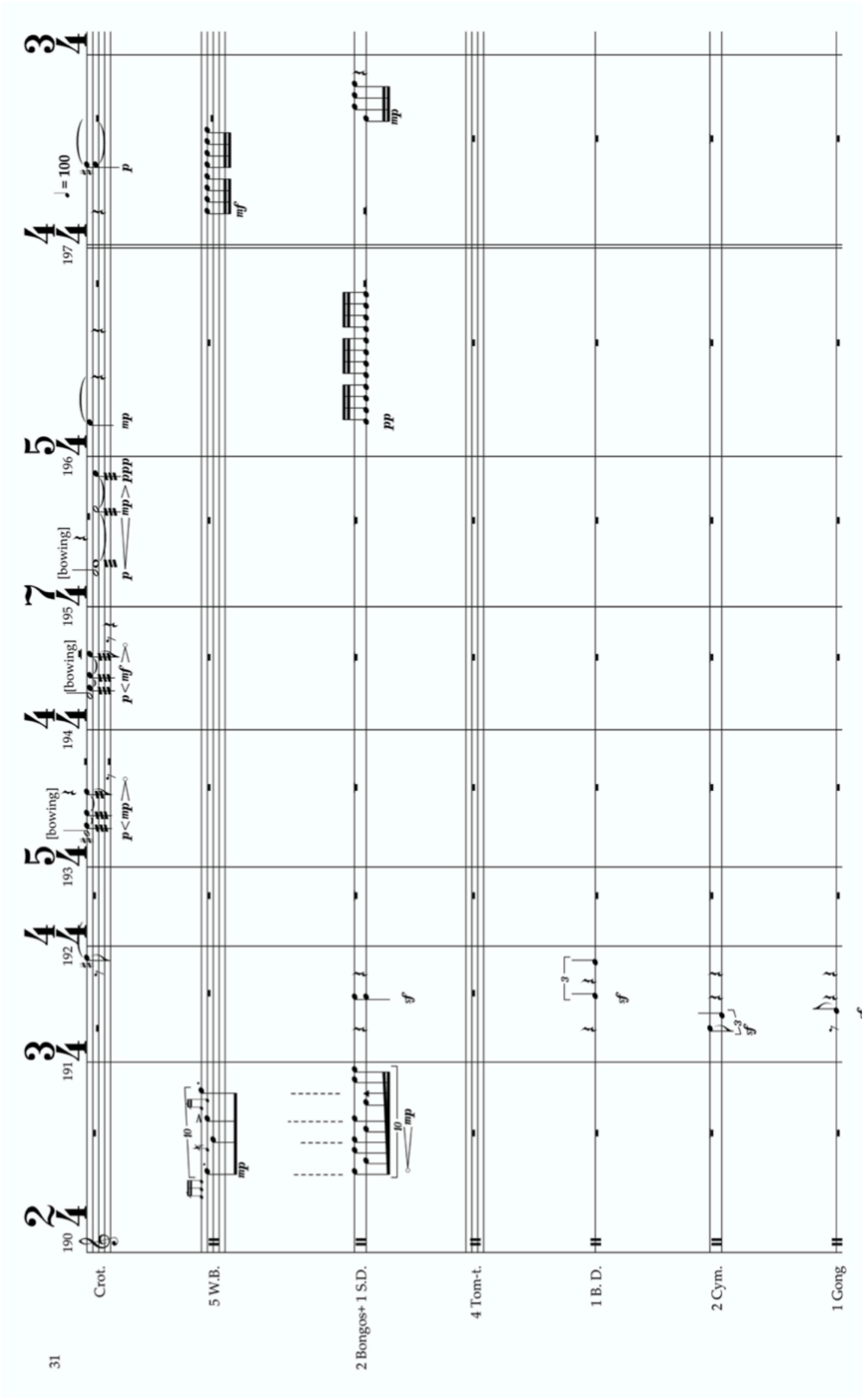

Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
161
162
163
164
165
166
167
♩= 100
3
sf
p
sf p
mf
sfp
mp

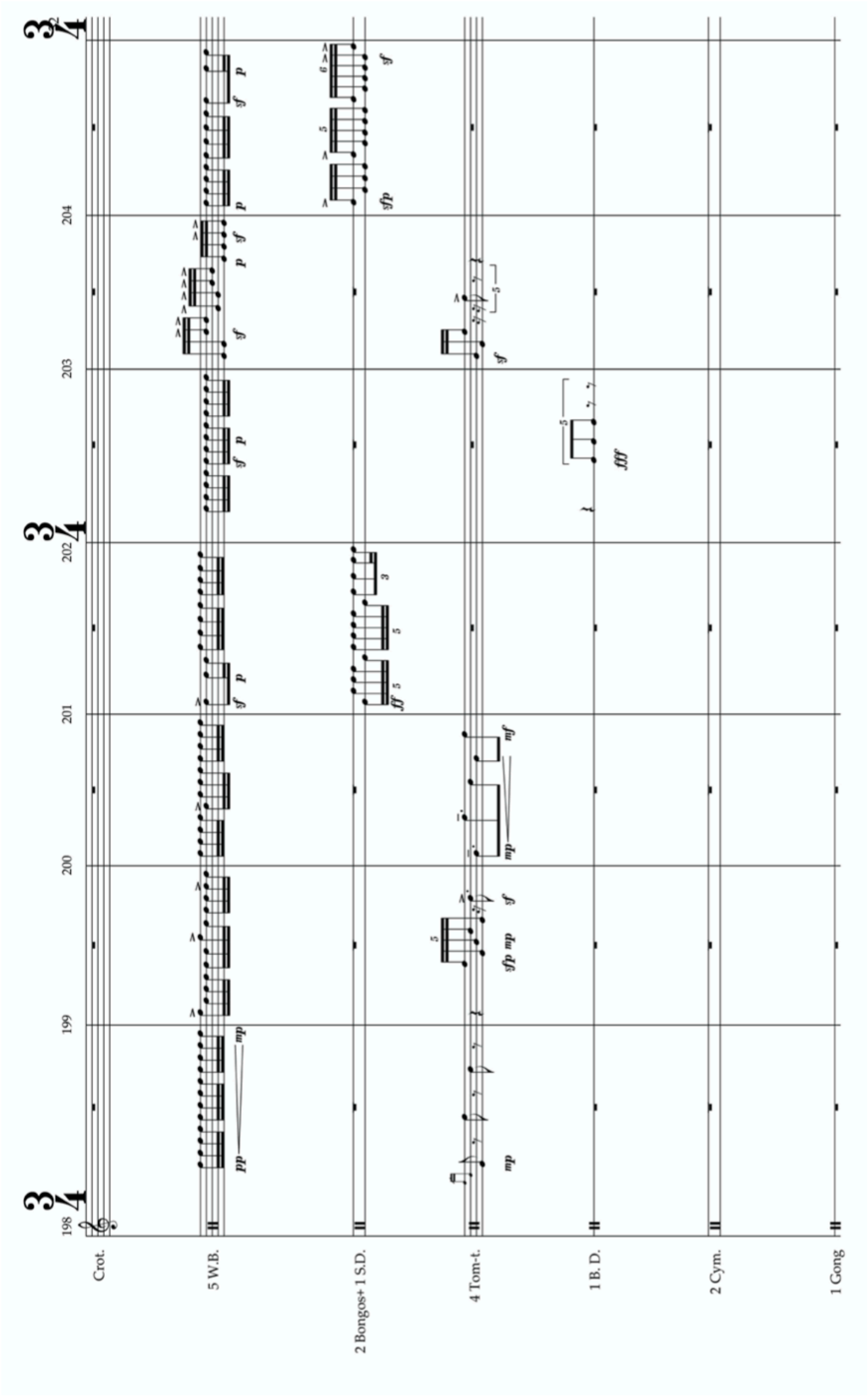

C
♩. = 60
♩ = 72
168
169
170
171
172
173
174
p
mf
f
sfp
f
mp
sf
ff
sff
sf > pp < ff >

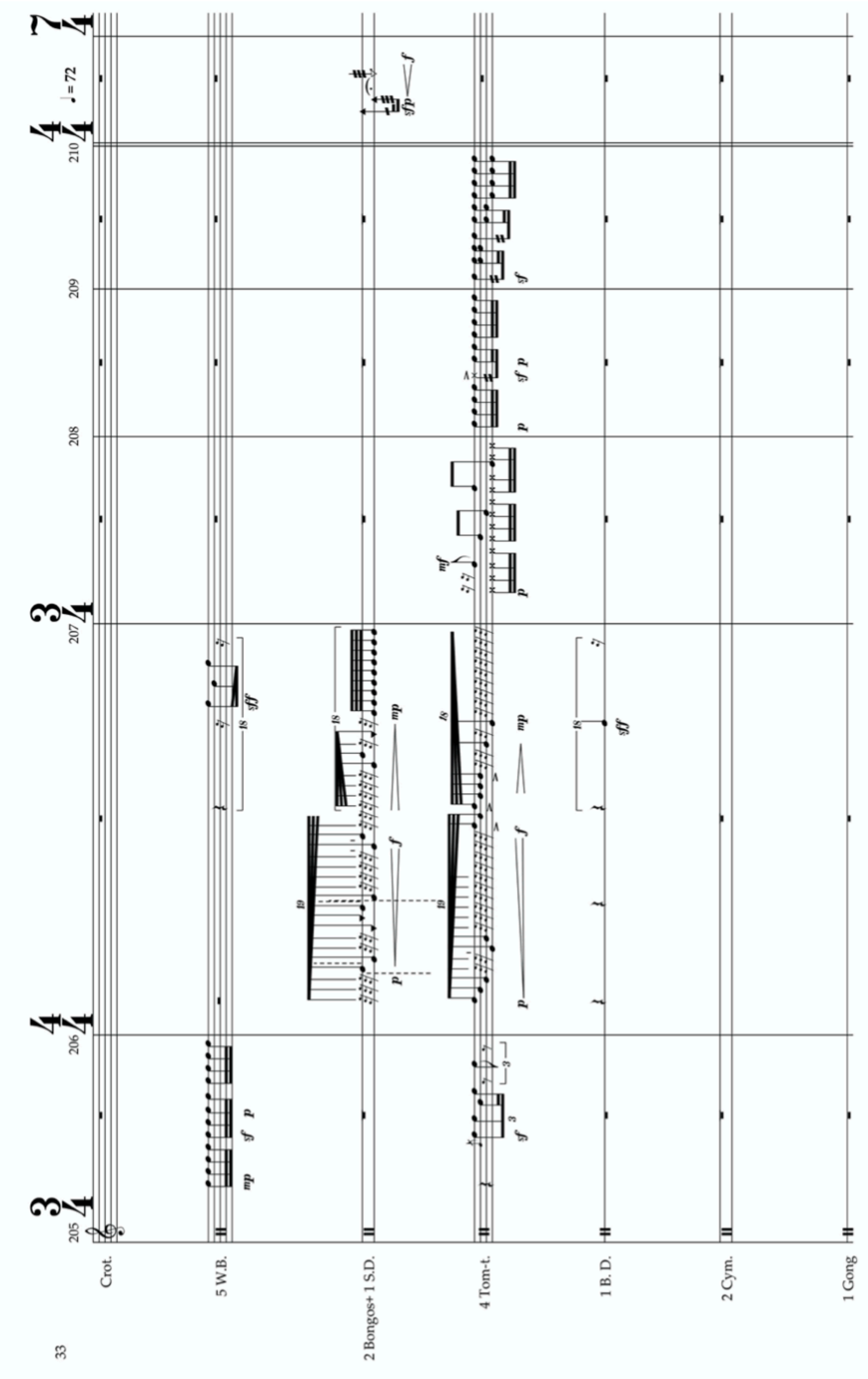

Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
175
176
177
178
179
5/8
3/8
7/8
7/4
6/4
4/4
f
sfff > mf
sfff
sf
f
mp
sff
23
pp
p
mf
5
sf
10
ff
sfp < ff
p < ff

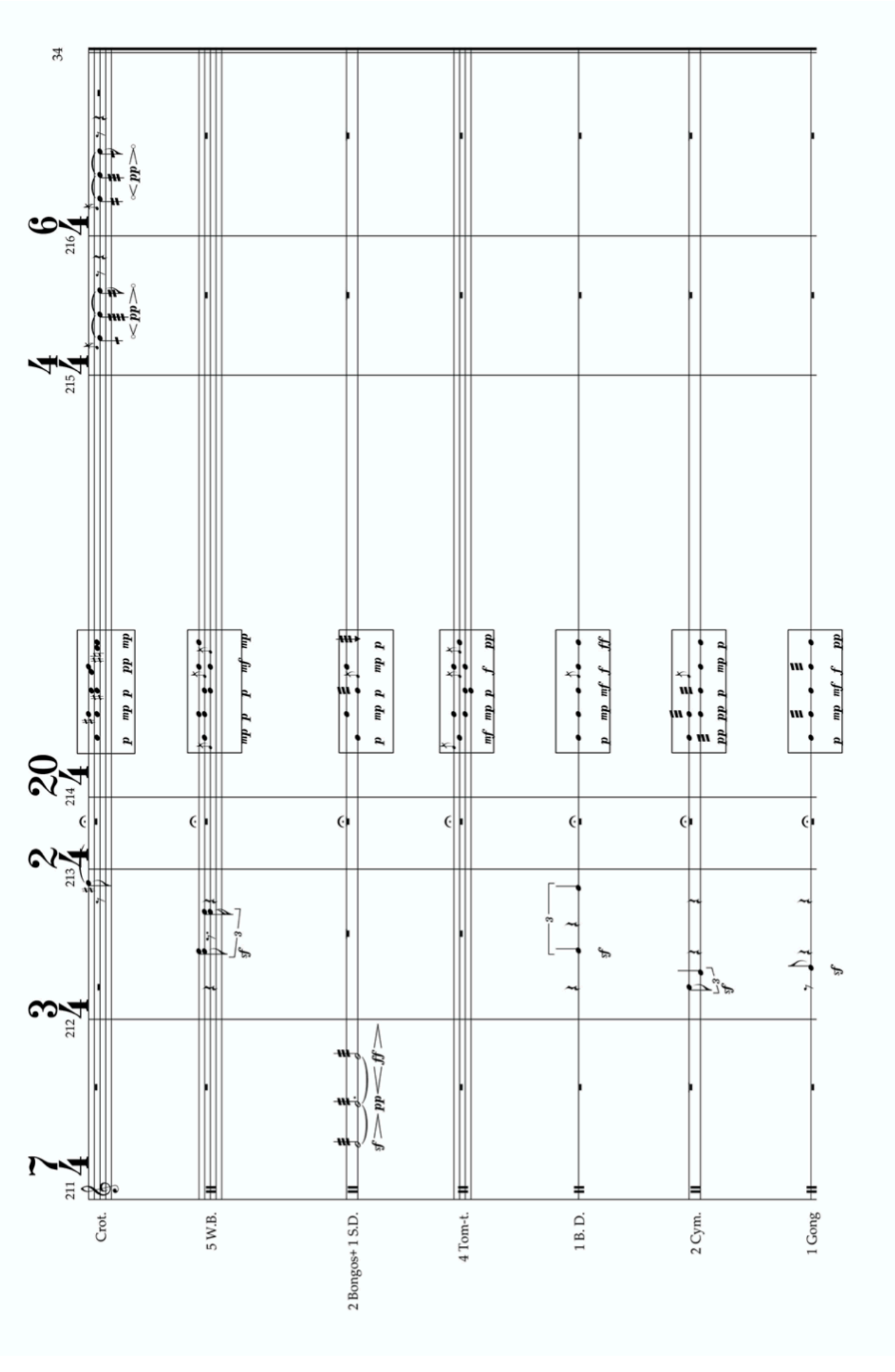

29
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
180
181
182
183
sfp
25
fff
ppp
25
fff
sfff
sfff
sfff
sfff
mp
3
mf
sf
p
f


Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
184
185
186
187
188
189
2/4
6/8
2/8
5/8
4/4
3/4
2/4
sff
p
mp
sf
sfff
3
p
f
sf
mp
mf
f
ff
fff
3
sf


31
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
190
191
192
193
194
195
196
197
[bowing]
[bowing]
[bowing]
♩ = 100
mp
mp
sf
sf
sf
f
p < mp >
p < mf >
p > mp > ppp
mp
pp
p
mf
mp
10
3


Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
198
199
200
201
202
203
204
pp
mp
sfp
sf
mf
fff
p


33
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
205
206
207
208
209
210
♩ = 72


34
Crot.
5 W.B.
2 Bongos+ 1 S.D.
4 Tom-t.
1 B. D.
2 Cym.
1 Gong
211
212
213
214
215
216
7/4
3/4
2/4
20/4
4/4
6/4
sf
pp
ff
p
mp
mf
f
pp
ff