Path to the Third Pole for Sinfonietta

by

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Dedicated to my mother, Yanmei Hu and to my wife, Qing Xu



ACKNOWLEDGMENTS

I extend my deepest gratitude to my thesis advisor, Professor David Gompper, whose guidance has been the compass by which I navigated the intricate process of this composition. I am indebted to the University of Iowa Center for the New Music Ensemble for breathing life into my musical notes. My heartfelt thanks go to the Marcus Bach Graduate Fellowship for their generous support, which has been instrumental in the realization of this project. To my mother, Yanmei Hu, and my wife, Qing Xu, I dedicate this work — your love and belief in my vision have been my sanctuary. And to the myriad of cultures and philosophies that have inspired me, I owe a debt of creativity.

ABSTRACT

"Path to the Third Pole" is a musical composition that harmonizes the spiritual essence of Tibetan Buddhism with Western classical music's aesthetic sensibilities. This twenty-two-minute piece for a sinfonietta ensemble delves into the acoustic and spiritual realms of Tibetan cultural practices, including chanting, ritual purification, and sky burial. The work juxtaposes the organic flow of the golden ratio, as exemplified in the third movement, with the mathematical precision of prime numbers structuring the second movement. This interplay of Eastern and Western philosophical concepts is further enriched by a personal narrative of intercultural exploration and a deepening connection with Tibetan spirituality. The composition stands as a testament to the transformative power of music, bridging cultural divides and inviting listeners into a contemplative space of cultural convergence and spiritual introspection.

PUBLIC ABSTRACT

"Path to the Third Pole" offers a musical journey into the heart of Tibetan Buddhism, articulated through the lens of Western classical music. This twenty-two-minute composition introduces listeners to the sacred rituals of Tibet, interweaving the spiritual and the acoustic. The piece thoughtfully blends Eastern philosophy with Western structural design, employing the golden ratio in the third movement to reflect natural harmony and prime numbers in the second movement to dictate progression and duration. Beyond its structural ingenuity, the composition is a narrative of personal exploration and connection with Tibetan culture and spirituality. It serves as a bridge between diverse worlds, inviting an experience of introspection and understanding across cultural divides, and echoing the universal language of music as a medium for transcultural dialogue and spiritual reflection.

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PREFACE

The title "Path to the Third Pole" carries a dual significance, blending both literal and metaphorical meanings. The "Third Pole" refers to the Tibetan Plateau, often called the "Third Pole" due to its high elevation and the vast amount of ice it holds, akin to the Arctic and Antarctic poles. Metaphorically, it symbolizes the zenith of spiritual awakening, a notion firmly embedded in the region's spiritual customs. This title encapsulates the essence of the composition, representing the soul's journey toward profound understanding and enlightenment, themes that are intricately woven throughout the musical narrative.

In composing "Path to the Third Pole," I endeavored to transcend the boundaries of conventional music, crafting a narrative that echoes the soul's quest for enlightenment. This composition serves as a bridge between the tangible world and ethereal realms, inspired by Tibetan culture and Buddhist philosophy. My focus was on harmonizing artistic expression, aural appeal, and technical depth, a triad that influenced every aspect of the composition. The movements resonate emotionally, stimulate the senses, and intellectually engage, exemplified using prime numbers and the golden ratio, which marry mathematical precision with artistic expression.

My journey in this intercultural exploration began with my String Quartet No. 1, entitled "Attainment of the Other Shore". Inspired by the Tibetan pilgrimage, it reflects the spiritual quest for enlightenment, setting the groundwork for my ongoing research and evolving compositional techniques. In "String Quartet No.1," I experimented with metric modulation to seamlessly connect distinct sections at varying tempos. This technique was further refined in the second movement of "Path to the Third Pole," titled "Melodies of Sacred Chants." Here, I showcased an advanced control of timing, reinforcing the idea that music is an art form sculpted in time.

As you delve into "Path to the Third Pole," I invite you to experience it as an auditory pilgrimage. It is a journey that traverses the mystical landscapes of Tibet, through the rituals of chanting and purification, to the profound acceptance of life's impermanence. May this journey offer you moments of introspection and transformation, and perhaps, lead you to a deeper understanding of the elusive shore that lies beyond our worldly perceptions. This composition is my homage to the spiritual path, a path that seeks to harmonize the profound depths of Tibetan Buddhism with the expressive possibilities of Western classical music.

INSTRUMENTATION

Flute Oboe Clarinet in Bb Bassoon

Horn Trumpet in C Bass Trombone Tuba

2 Percussion Piano

Strings (1.1.1.1.1 minimum)

Percussion Instruments

Percussion 1:
 Marimba
 4 Tom-toms
 5 Temple Blocks
 Bass Drum
Crotales (with bow)



Percussion 2:
Vibraphone
Tam-tam (Large)
Hand Cymbals
Suspended cymbal (with Drum Brush)
Guiro



Score is written in C

EXPLORING THE JOURNEY ACROSS FIVE MOVEMENTS

Mystical Invocation: The First Movement

The opening movement of "Path to the Third Pole", entitled "Whispers of Tibet: A Dream's Prelude", gently guides listeners into the mystical realm of the Tibetan Plateau. This movement commences with a solemn introduction, where the orchestration mimics traditional Tibetan instruments: the woodwinds replicate the Gyaling horn's eloquent tones, while the low brass echoes the deep, majestic resonance of the Dungchen. This creates an ambiance steeped in ancient ritual and spiritual awakening, effectively setting the stage for the ensuing journey.

In this movement, the music closely aligns with traditional Tibetan ritual music. The orchestration and thematic development are deliberately minimalistic and unrefined, capturing the mystical and transcendent essence of Tibetan spiritual practices. This approach establishes a mood of reverence and introspection, which resonates throughout the entire composition.

Sequential Primes: Temporal Framework of the Second Movement

The second movement, "Melodies of Sacred Chants," is an auditory pilgrimage that mirrors the inner quest for growth and the awakening of enlightenment. This movement unfolds in seven distinct sections, each one marking a step on the path to spiritual discovery. The duration of each section is meticulously calculated based on prime numbers — those indivisible

constants that are the building blocks of mathematics. This infuses the piece with a rhythm that is both primal and natural. The durations of these sections are 29, 31, 37, 41, 43, 47, and 83 seconds, respectively, culminating in a total span of 311 seconds, precisely 5 minutes and 11 seconds. This duration, adhering to the prime number sequence, symbolizes the unity and integrity of the movement. This numerical design reflects the soul's transformative journey in its quest for the sacred and sublime.

Table 1 presents the tempo markings, descriptive terms, and durations for each section, while Figure 1 illustrates the temporal transitions between adjacent sections achieved through metric modulation, complete with a time axis and rehearsal marks for reference.

In "Melodies of Sacred Chant," the use of prime numbers to structure the progression mirrors the intricate and often enigmatic path of spiritual enlightenment. The melodies, though not derived from traditional Tibetan chants, are designed within a Western classical framework to evoke the meditative depth of these chants. This fusion creates a unique soundscape that bridges Eastern spiritual music with Western compositional techniques. The arrangement of these sections, labeled "a" through "g", does not strictly follow the ascending order of the prime numbers. This rearrangement was necessary to ensure a cohesive and fluid musical narrative. Some sections required longer durations to fully express and develop the musical ideas, ensuring that the composition did not feel rushed or constrained by the numerical framework.

The decision to start with 29 seconds for the first section was influenced by the need to balance the overall structure of the movement. Since the total duration needed to remain a prime number, adjustments in one section's length necessitated corresponding changes in others. The 29-second duration for the opening section was chosen as it provided just enough time to

introduce the musical theme effectively, setting the tone for the journey ahead without overwhelming the listener.

This intricate balancing act between the durations of individual sections and the total length of the movement reflects the careful consideration given to both the musical and conceptual elements of the composition. The use of prime numbers as a structuring tool adds complexity and symbolizes each unique, indivisible moment in the spiritual journey.

Divine Proportion: The Golden Symmetry in the Third Movement

In the third movement of my composition, "Cleansing Rites: A Spiritual Renewal", the golden ratio emerges as the guiding principle, shaping its structure with an almost divine sense of order and beauty. This mathematical ratio, often associated with natural harmony and aesthetic perfection, is applied to create a form that unfolds in proportion. The movement is divided into two main sections, A and B, with the pivotal moment occurring precisely at the golden section point, 0.618 of the way through. This intentional placement creates a sense of balance and inevitability, as the music progresses from the first note to the last.

The golden ratio's presence in this movement is not just a structural choice but a symbolic reflection of key Buddhist concepts. In Tibetan Buddhism, the pursuit of spiritual balance and harmony is central. The golden ratio, embodying harmony and balance, mirrors the Buddhist path of seeking equilibrium in life and spiritual practice. It resonates with the Buddhist understanding of the universe's interconnectedness and natural order, reflecting the cosmos's organic unity in sound.

Furthermore, the golden ratio's application in this movement aligns with the use of sacred geometry in Tibetan Buddhist mandalas, which are intricate geometric representations of the spiritual universe. The golden ratio in the movement's structure echoes the perfection and

impermanence found in these mandalas, reminding us that perfection is a transient alignment in the ever-changing flow of life.

The movement alternates between two distinct types of sections, each contrasting in nature. The first, known as "Order," is rhythmically structured and follows Tempo I (quarter note = 60), marked Methodically and Solemnly. It represents the universe's structured, orderly aspect, mirroring the disciplined paths in Buddhist practice. In contrast, the "Chaos" section explores complexity and disarray, creating a "chain effect" where each musical gesture sparks the next. Performed spiritedly and frantically at Tempo II (quarter note = 72), it embodies the unpredictable and ever-changing nature of existence, aligning with a fundamental Buddhist principle. This movement, transitioning through stages of cleansing and renewal, represents the shedding of worldly attachments and the soul's purification. It serves as a crucial juncture in the composition, bridging the physical and spiritual realms and setting the stage for deeper introspection in the following movements.

Table 2 outlines the durations of the third movement's sections and their interrelations, including how each section corresponds to its overarching parent section. A time axis with rehearsal marks provided beneath the table serves as a reference for these temporal relationships. The golden ratio's use in this movement thus becomes a profound metaphor for the Buddhist journey toward enlightenment, marked by a continuous search for balance, understanding, and acceptance of life's impermanent nature.

Celestial Farewell: The Fourth Movement

The fourth movement of "Path to the Third Pole", titled "Celestial Farewell: The Sky's Embrace", immerses the listener in the profound and solemn ritual of the Tibetan sky burial. This significant practice in Tibetan Buddhism is musically interpreted to invite deep contemplation on

life's impermanence, a key aspect of Buddhist teachings. The movement is marked by its ethereal textures and expansive melodies, which create an aura of vastness and transcendence, echoing the endless expanse of the sky.

Throughout this movement, the dynamics are meticulously controlled, remaining consistently soft at pianississimo, and evoking a sense of the ethereal and ineffable. The orchestration is crafted to conjure images of the sky and the elements, symbolizing the soul's release and ascent into the cosmos. This poignant portrayal serves as a reminder of life's transient nature and the fleeting beauty of existence.

The movement's structure stands out, as each instrument group enters and exits independently but harmoniously, creating a soundscape that is both spontaneous and meticulously crafted. The strings lead this celestial hymn, followed by the woodwinds, and then the muted brass, each adding their voice to this serene farewell. As the movement progresses, the brass recedes, leaving the woodwinds and strings to carry the melody. Eventually, the woodwinds fade away, leaving the strings to sustain the atmosphere until they seamlessly transition into the final movement.

This approach to orchestration, focusing on long, sustained notes with occasional embellishments, reinforces the movement's theme of celestial farewell. The independent yet harmonious entry and exit of each instrument group create a sense of individual journeys converging into a collective ascension, mirroring the Buddhist belief in the interconnectedness of all beings. The movement, thus, becomes not just a musical piece but a meditative experience, inviting listeners to reflect on the profound cycle of life and death and the serene acceptance of the ever-changing nature of existence.

Echoes of the Himalayas: The Fifth Movement

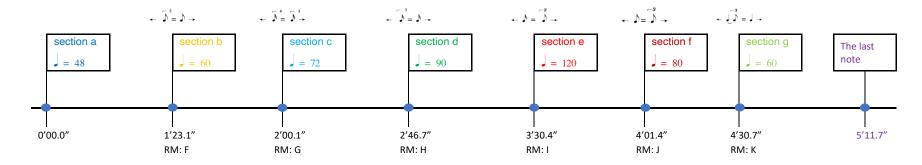
In the finale movement, "Echoes of the Himalayas: A Dream's Epilogue", the spiritual odyssey reaches its zenith. This movement vividly brings to life the majestic serenity of the Himalayas, symbolizing the ultimate attainment of spiritual enlightenment. It crafts a sonic landscape that mirrors the expansive calm and grandeur of the Himalayan ranges, offering a meditative and dreamlike closure to the entire composition. The music strikes a balance between grandiosity and intimacy, capturing both the Himalayas' awe-inspiring magnificence and the deeply personal nature of the spiritual journey. Concluding with a sense of peace and fulfillment, it leaves the listener with an enduring impression of Tibet's spiritual depth and natural beauty.

Table 1. Formal structure of the 2nd movement, "Melodies of Sacred Chant"

The progression of the second movement depicts a journey of inner exploration, growth, and eventual enlightenment. The duration of each section is derived from Prime Numbers: ... 29, 31, 37, 41, 43, 47, ... 83, ... 311, ...

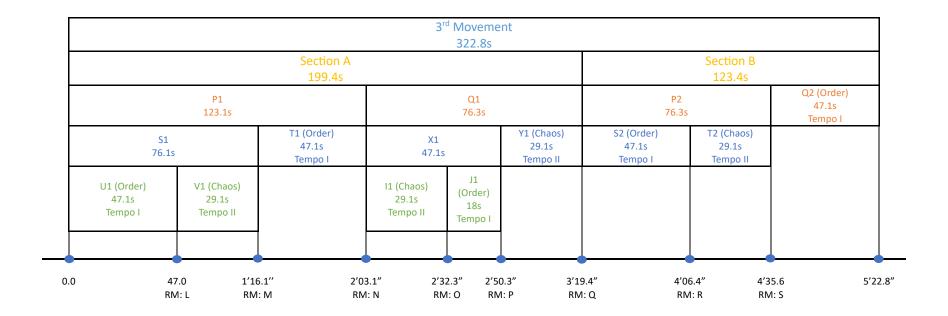
Section	Mood or Character	Description	Tempo	Duration in seconds
a	Tranquilly and mystically	Sets a calm, mysterious foundation	J = 48	83.1
b	Evolutive	Suggests a gradual development or unfolding	J = 60	37.0
С	Transformation	Indicates a significant change or metamorphosis	J = 72	46.6
d	Elevating	Implies a rising or uplifting quality	J = 90	43.7
е	Introspectively	Suggests a turning inward or self-reflection	J = 120	31.0
f	Awakening	Signifies a moment of clarity or coming into awareness] = 80	29.3
g	Revelatory	Unveils a profound truth or realization	J = 60	41.0
				total 311.7

Figure 1. Temporal transitions of the 2nd movement, "Melodies of Sacred Chant"



RM is an abbreviation of Rehearsal

Table 2. Formal structure of the 3rd movement, "Cleansing Rites: A Spiritual Renewal"



RM is an abbreviation of Rehearsal Mark

PERFORMANCE INSTRUCTIONS

The five movements of the composition are designed to be performed continuously, in an "attacca" fashion. While brief pauses between movements are permissible, the final two movements should be executed without interruption, ensuring a seamless transition.

Woodwinds

In the initial movement and later in the third, I employed the oboe and clarinet to emulate the distinctive sound of the Tibetan Gyaling (()), a double-reed horn. This instrument emits a sound that is both penetrating and plaintive, yet it carries an underlying warmth. Its timbre, reminiscent of an oboe, possesses a nasal resonance. In the third movement, this emulation is enriched with the addition of the bassoon and muted trumpet, further expanding the tonal palette. Generally, the oboe and clarinet should perform with the freedom like notated improvisations, allowing for significant rhythmic liberty.

Brass

The Tuba and Bass trombone are employed to emulate the iconic Tibetan horn, the Dungchen((() known for its profound and echoing calls. This horn communicates through a spectrum of sounds, illustrated in Figure 2: from the "dor", a deep and resonant tone that grounds the listener, to the "zhung", a robust and central note that envelops the space with its sonorous quality. The "tsakra" pierces the silence with its unstable sound quality, while the "nhi" contributes a softer, more intricate murmur, akin to a gentle breath that touches the finer strands of the soul. These diverse tones weave the rich sonic fabric of the Dungchen.

Figure 2. Dungchen Pitches

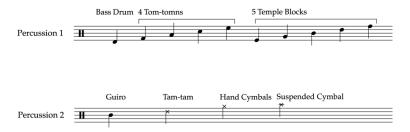


¹ Matthias Bertsch, "Dungchen | The powerful magic of LOW Sounds! Scientific Doku", YouTube video, 3:44, posted by "Matthias Bertsch", August 24, 2012, https://www.youtube.com/watch?v=LdR5Ru8oF48.

Percussions and Piano

Figure 3 presents the detailed percussion legend for both Percussion 1 and 2, providing specific notation for each instrument. Alongside the percussion, the piano holds a central role in "Path to the Third Pole." The use of piano pedals, encompassing both the 'Una Corda' and the sustain pedal, is largely left to the pianist's artistic discretion. However, in sections where the sustain pedal is specifically indicated for continuous use, it creates a resonant and unbroken sound, enhancing the piano's timbre with depth and richness. This approach allows for a fluid sound flow, seamlessly connecting and elevating the musical phrases.

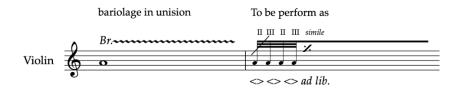
Figure 3. Percussion Legend



Strings

In the second movement, the strings employ the bariolage technique, which consists of rapidly alternating between a stationary pitch and neighboring changing notes, as shown in Figure 4, resulting in a vibrant, shimmering effect. This technique is not limited to the use of open strings but is applied across the instrument's range, offering a lively and resonant sound.

Figure 4. Bariolage techniques in string instruments

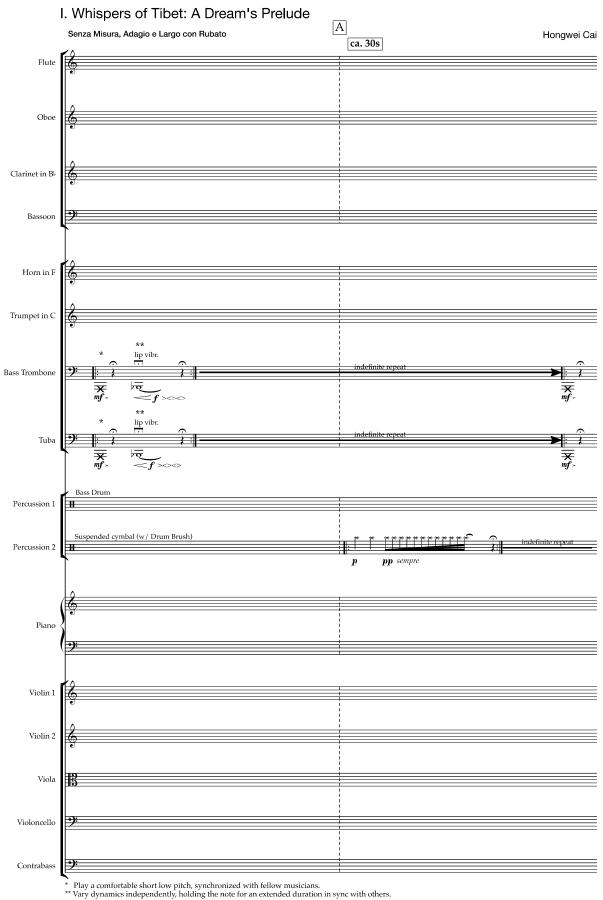


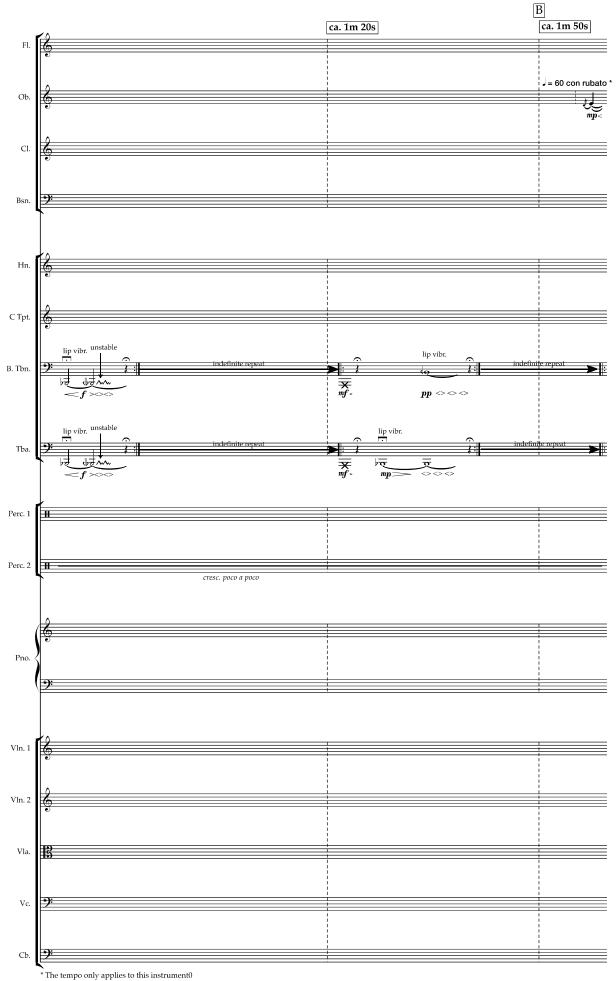
Other abbreviations used in string instruments:

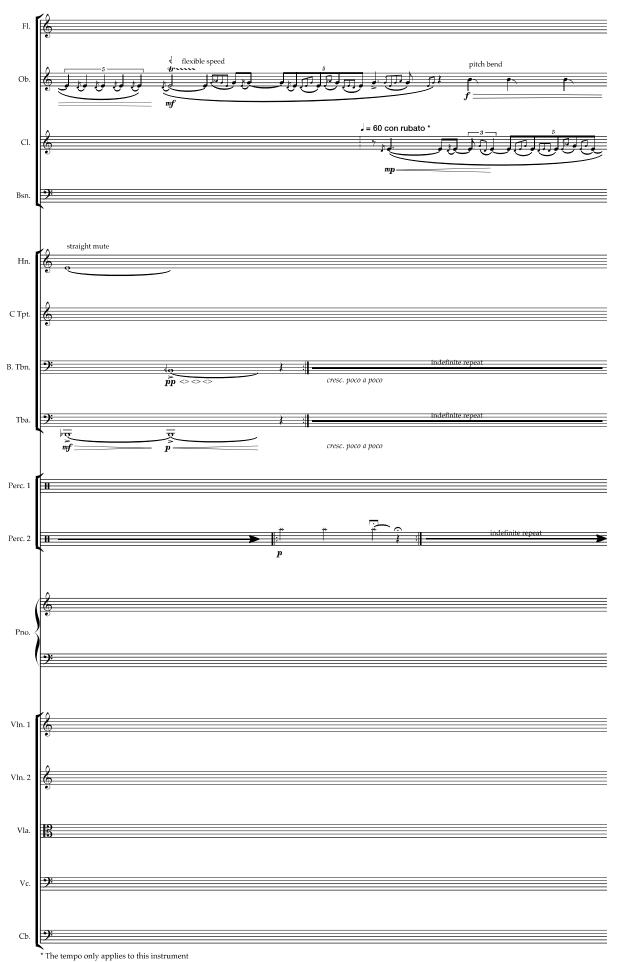
(m)SP = (molto) sul ponticello ord. = ordinary bow position c.l.b. = col legno battuto ric. = ricochet mVib. = molto vibrato

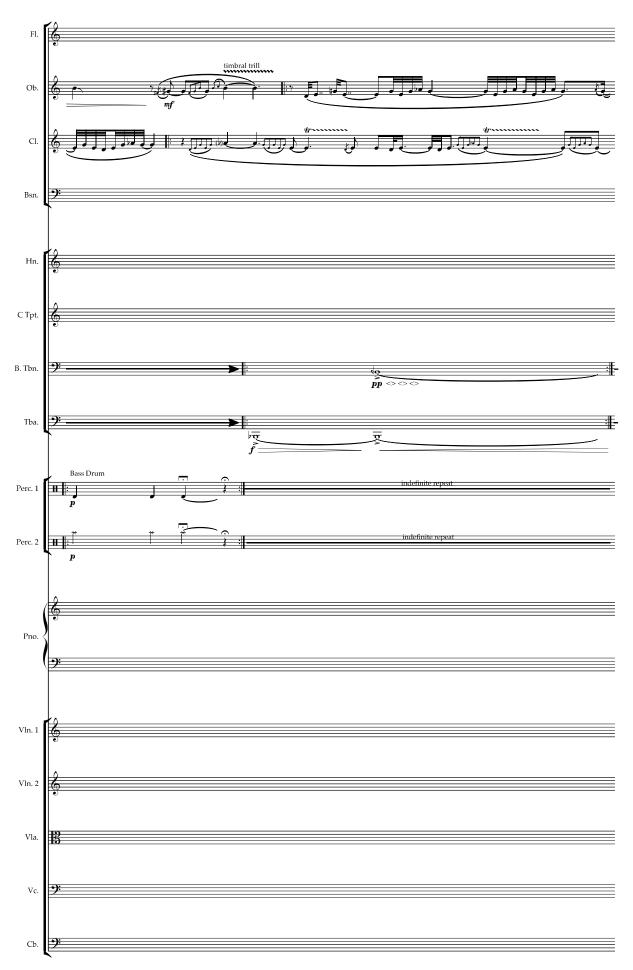
Path to the Third Pole

for Sinfonietta

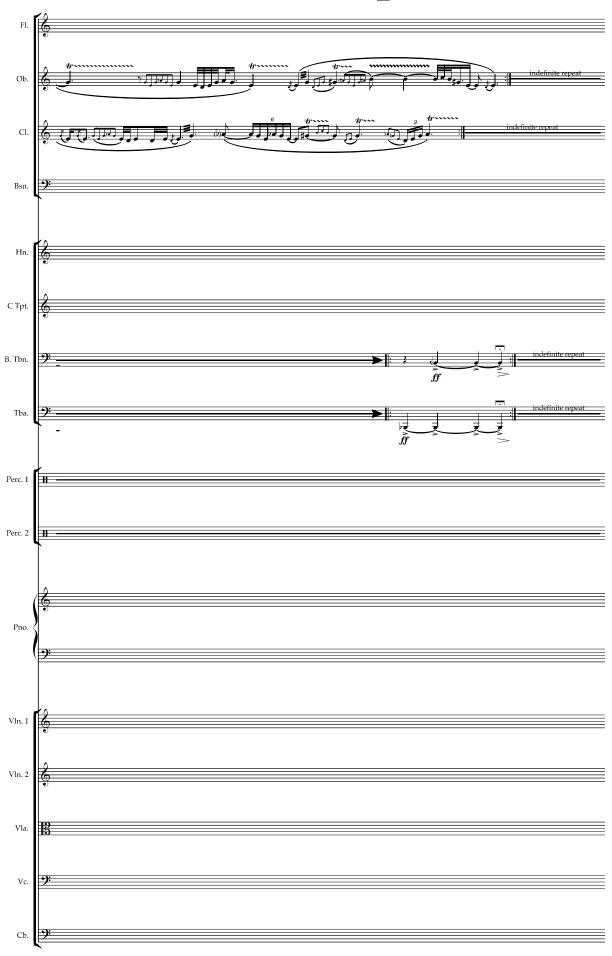


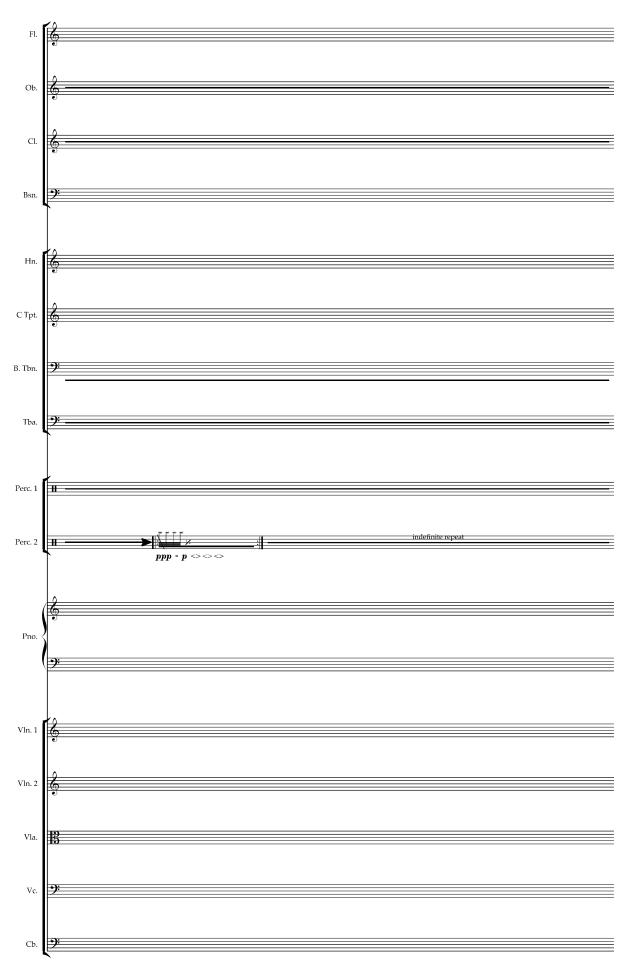




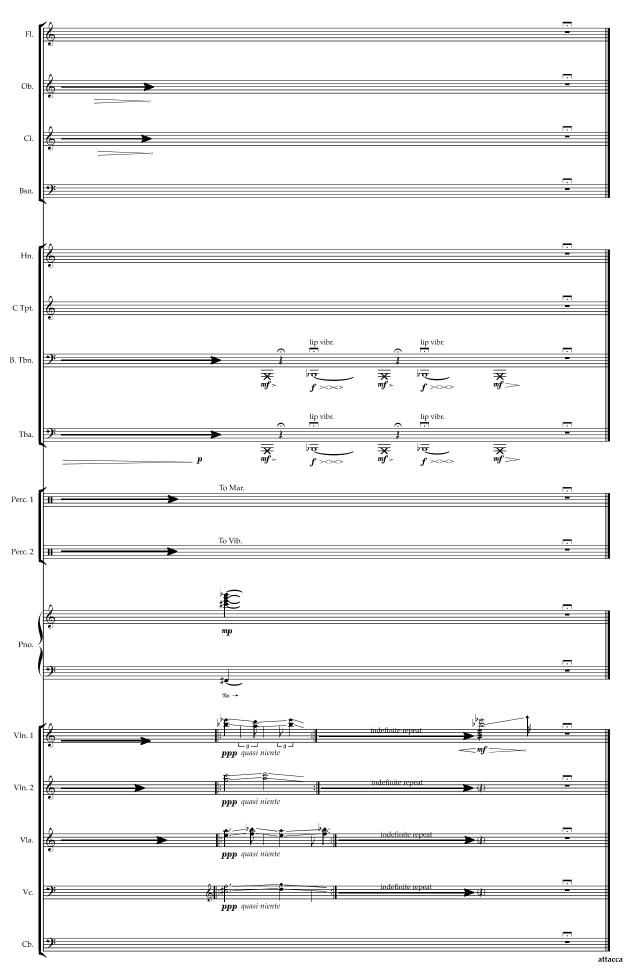






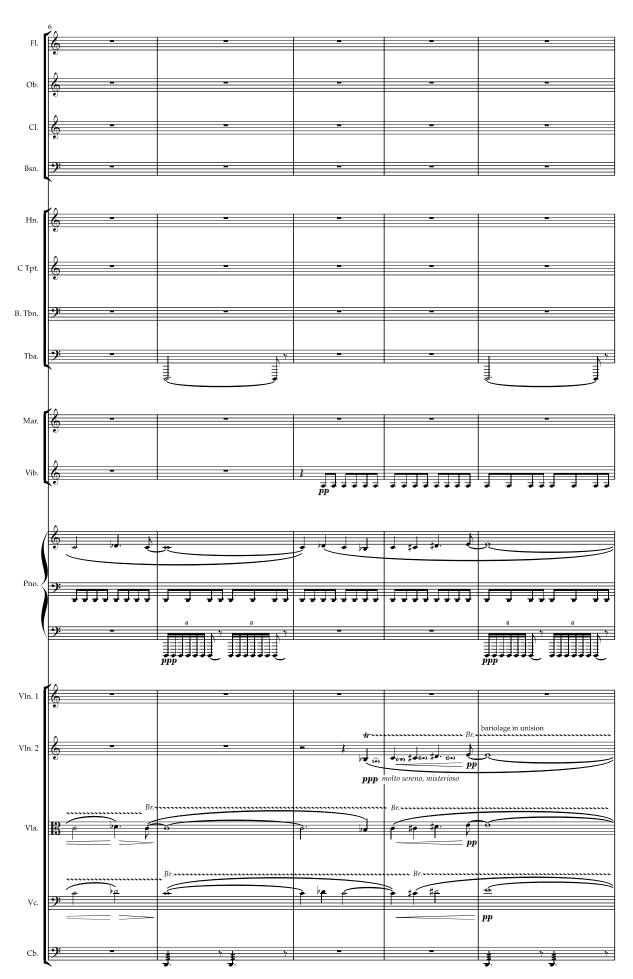






II. Melodies of Sacred Chants

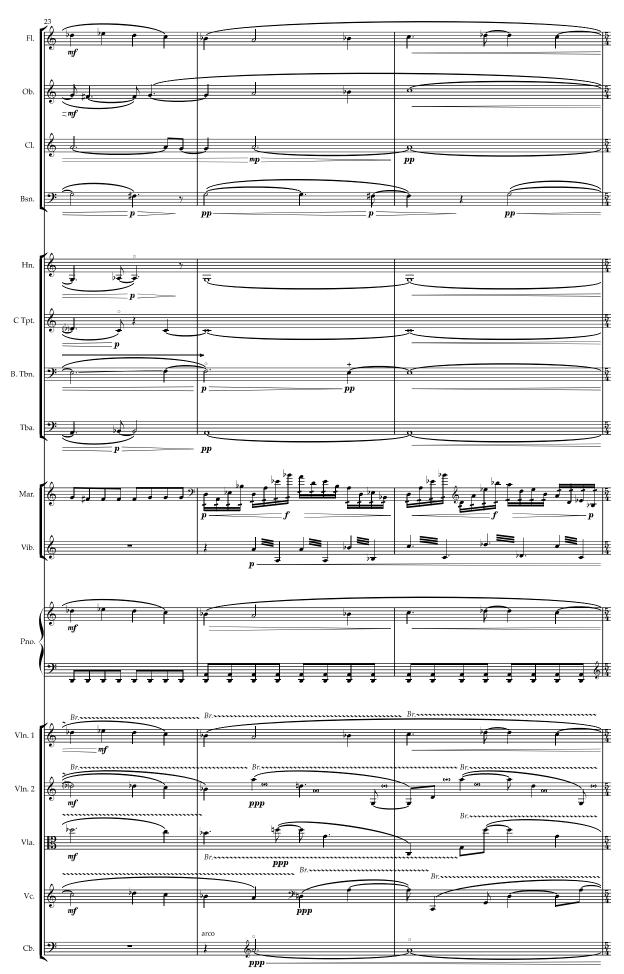


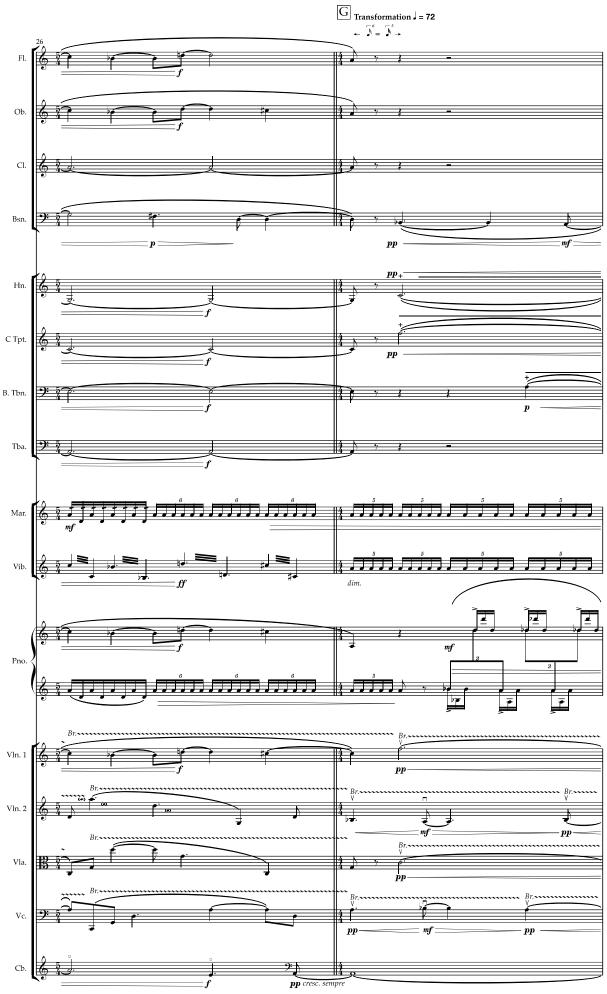










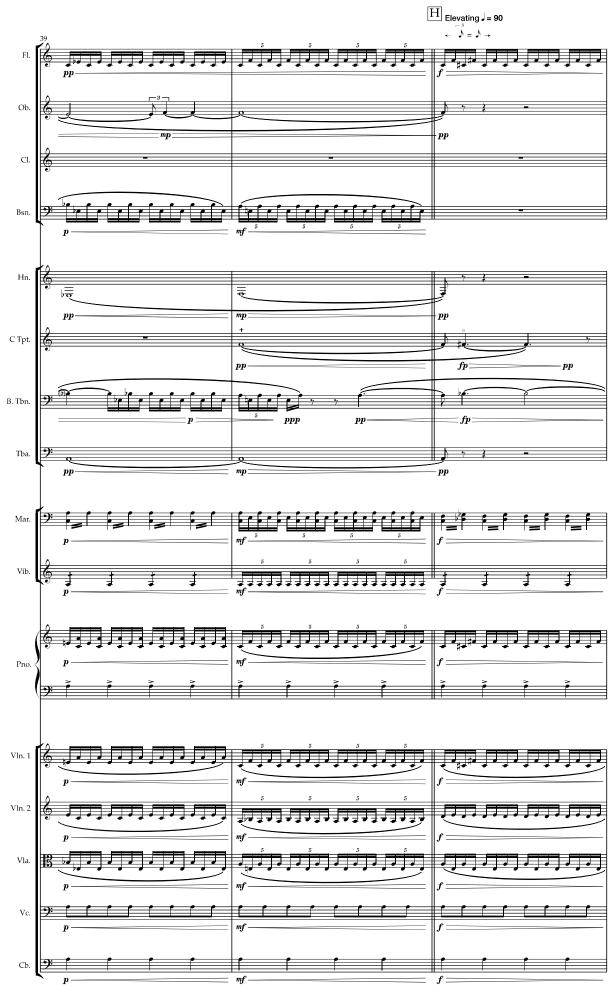














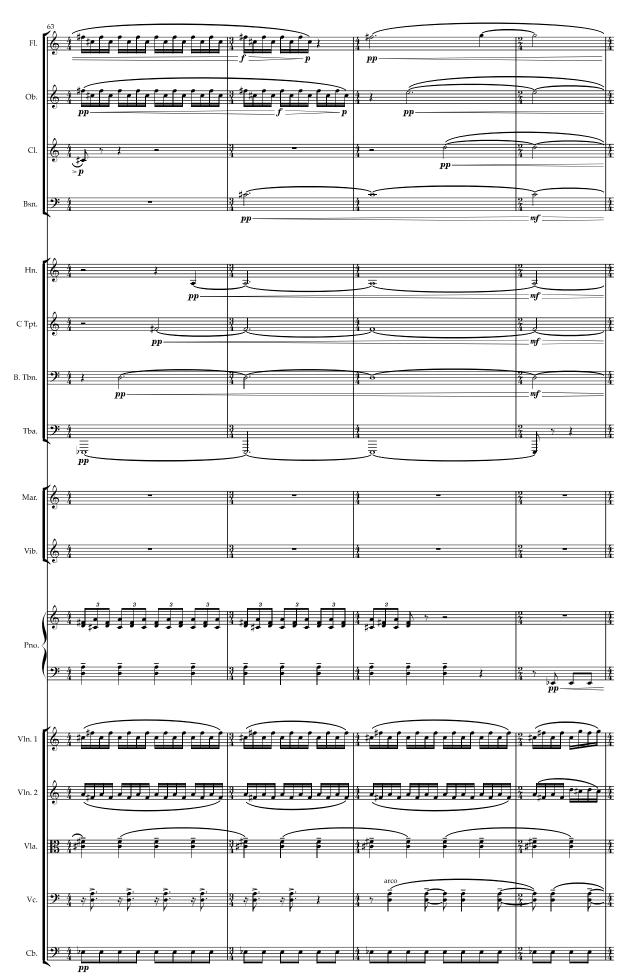






















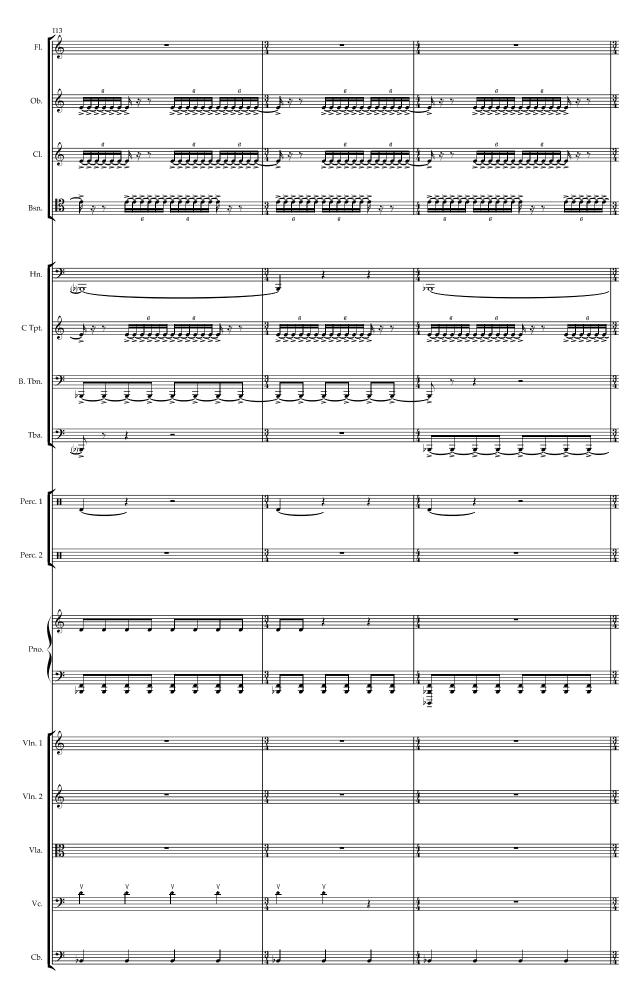
























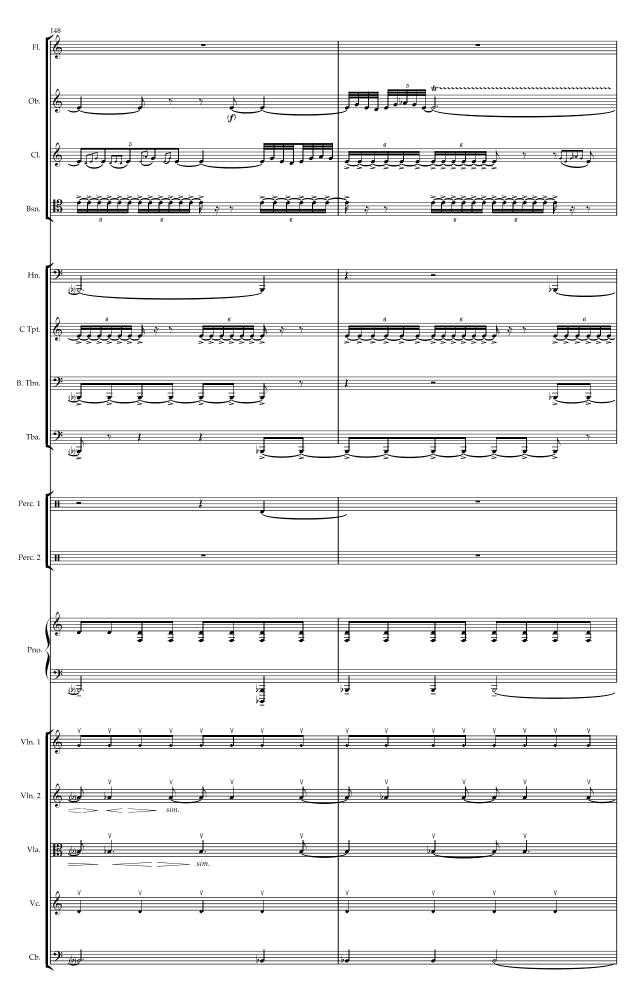


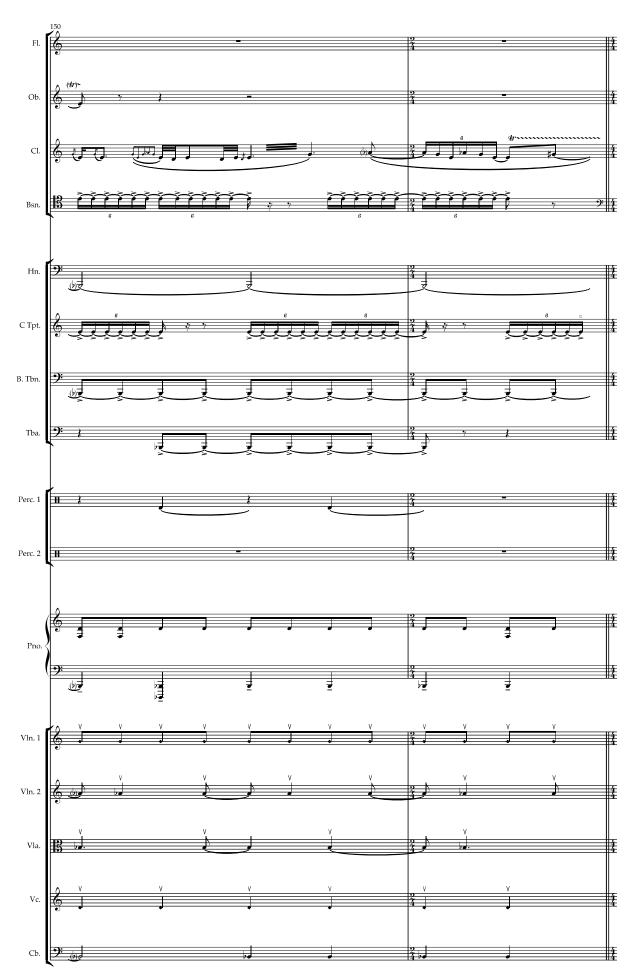




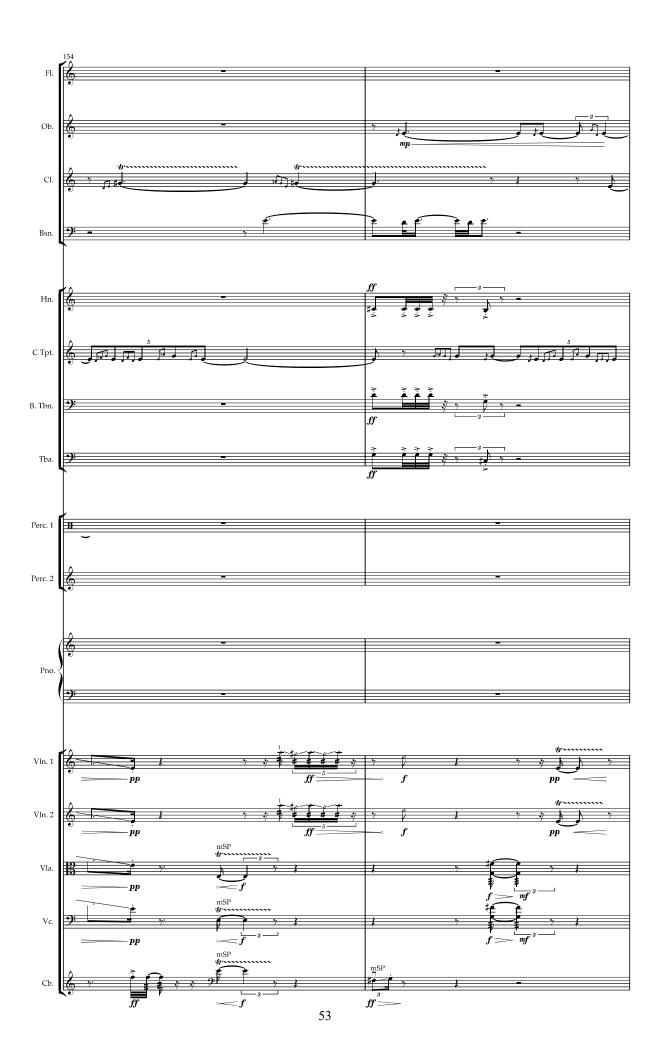




























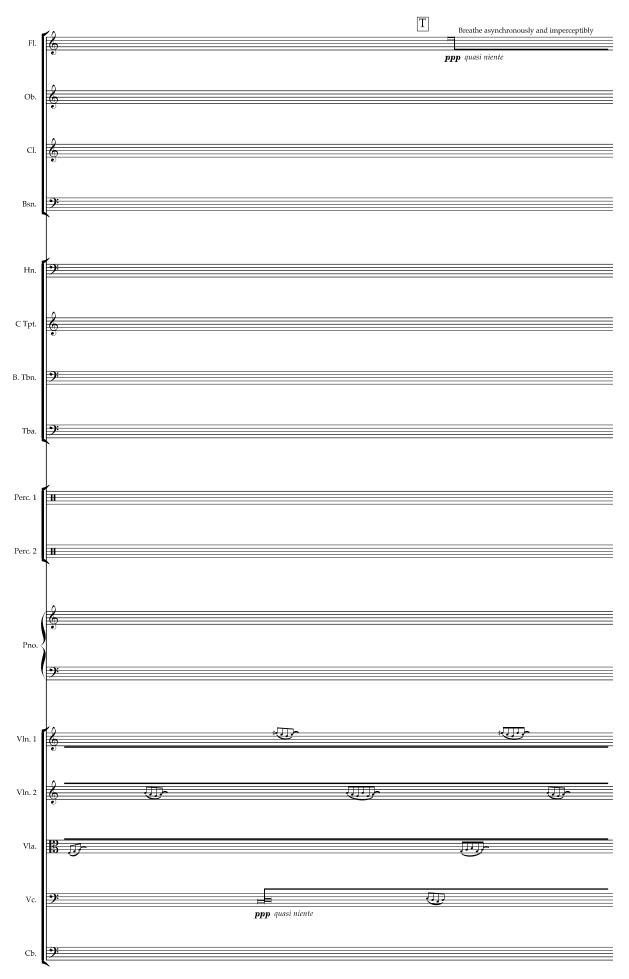


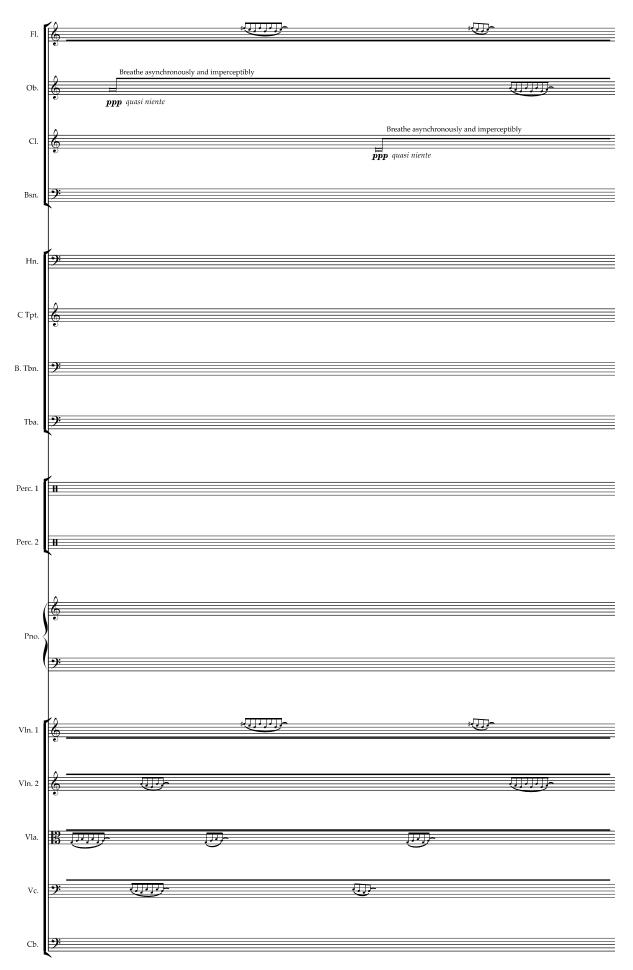


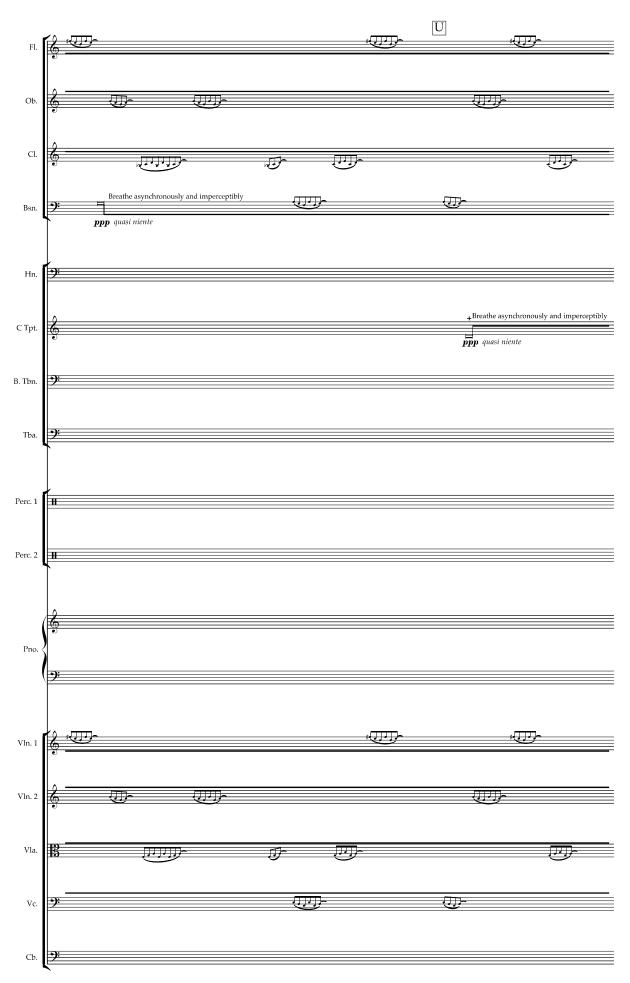


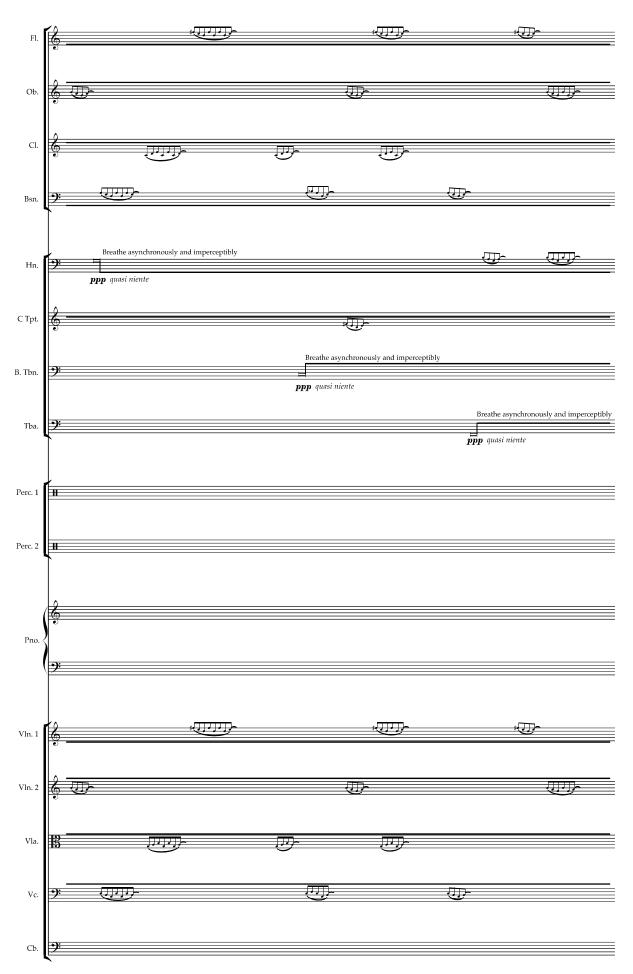
IV. Celestial Farewell: The Sky's Embrace

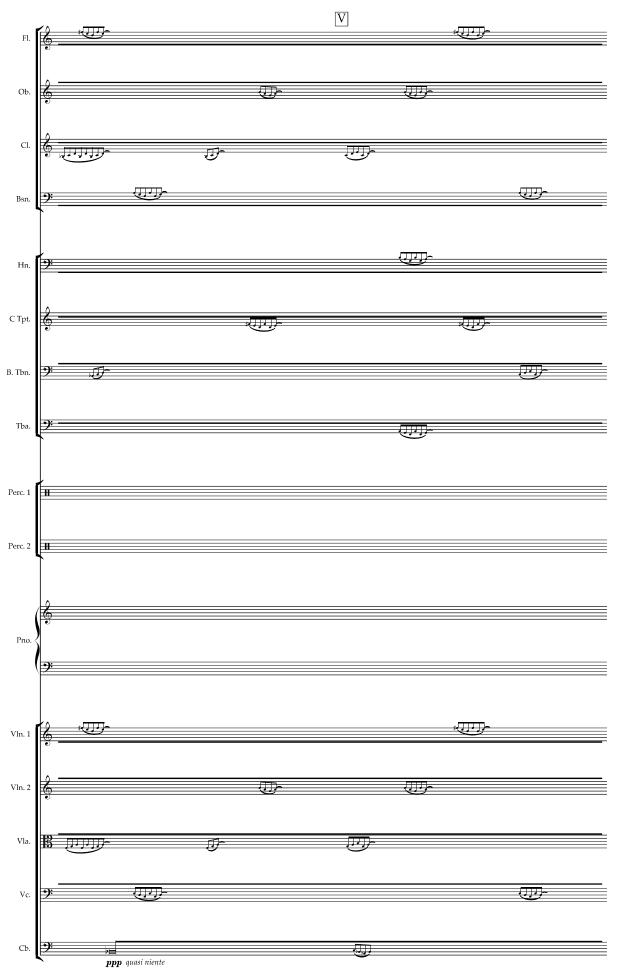
Senza Misura e Lento, Ethereally and Ineffably Ob. C1. Hn. con sord. (wah-wah mute, closed throught) C Tpt. con sord. B. Tbn. Tba. Perc. 1 Perc. 2 Pno. Vln. 1 ppp quasi niente Vln. 2 **ppp** quasi niente Vla. ppp quasi niente Vc. Cb.

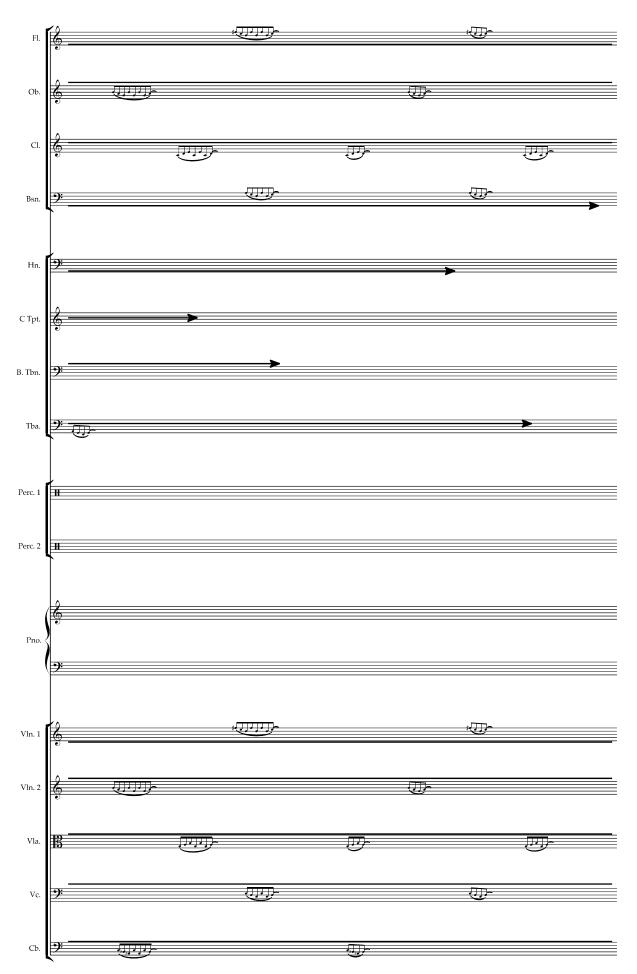


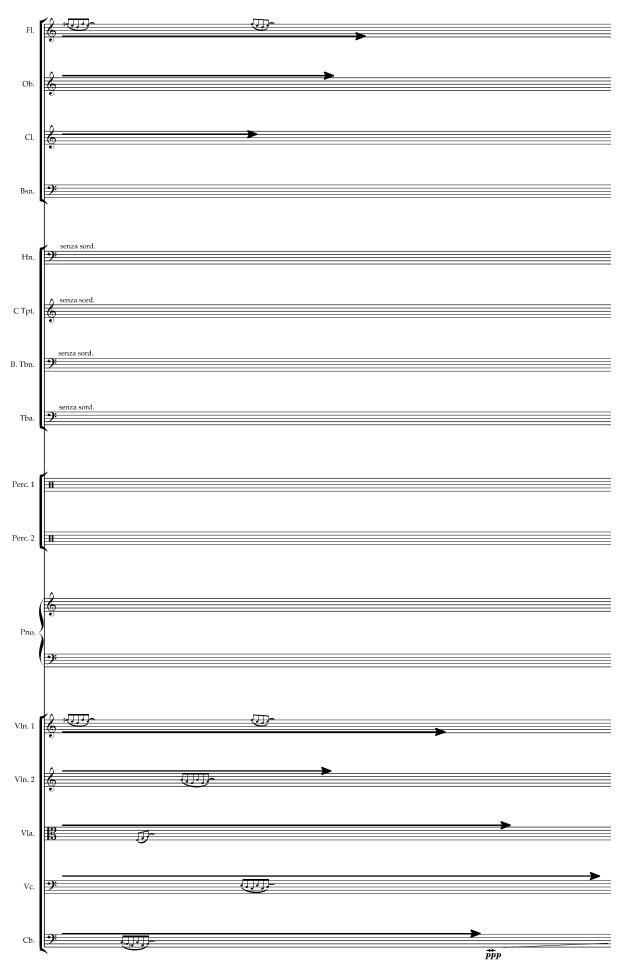












V. Echoes of the Himalayas: A Dream's Epilogue

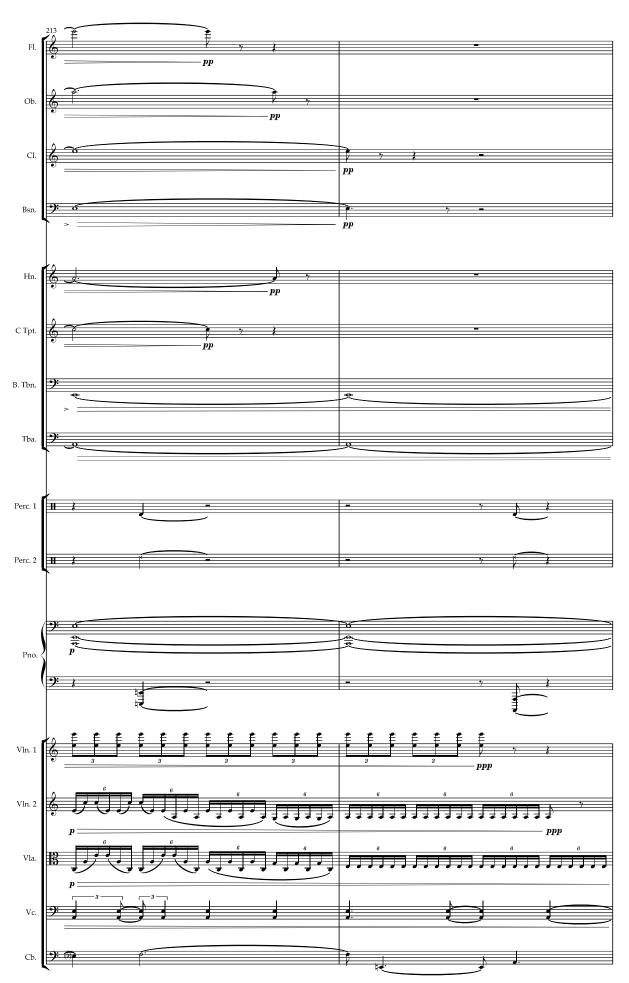






















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