## Title

# Volume I: The Musical Nexus between Medieval Christianity and Tibetan Buddhism: The Analysis of Christopher Theofanidis's Rainbow Body Volume II: Inner Voices for Orchestra 

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# UNIVERSITY OF CALIFORNIA 

Los Angeles

Volume I

The Musical Nexus between Medieval Christianity and Tibetan Buddhism:
The Analysis of Christopher Theofanidis's Rainbow Body

Volume II
Inner Voices for Orchestra

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

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## ABSTRACT OF THE DISSERTATION

# Volume I <br> The Musical Nexus between Medieval Christianity and Tibetan Buddhism: The Analysis of Christopher Theofanidis's Rainbow Body 

Volume II

Inner Voices for Orchestra

by

## Lawrence Lee

Doctor of Philosophy in Music University of California, Los Angeles, 2014

Professor David S. Lefkowitz, Chair

This dissertation consists of two volumes; the first volume is a monograph and the second a music composition.

## Volume I

American composer Christopher Theofanidis's orchestral work Rainbow Body operates on the synthesis of two disparate entities. Although based on a $12^{\text {th }}$ century liturgical chant
written by German abbess Hildegard of Bingen, the composition uses a Tibetan Buddhist term as its title, thereby offering a new perspective towards the familiar religious practice to the western world through a pluralistic lens. Similarly, this neo-modal composition reinterprets traditional harmony and counterpoint by carefully superimposing two different musical elements such as a non-harmonic tone and its tone of resolution. This dissertation investigates how the composer achieves such synthesis in his music by first exploring the historical and cultural backdrop in which the composition emerged. Then, it analyzes how the piece utilizes Hildegard's chant and other traditional musical languages and breaks away from it.

## Volume II

Inner Voices for Orchestra is an orchestral composition that liberally incorporates minimalism and sound-mass techniques. This loosely tripartite work begins by setting the pulse, establishing the harmonic language, and introducing the main theme. The initial pulsating pitch grows into a complex chord by accumulating different notes that sporadically enter with strong attacks. The harmony then gradually morphs by subtracting and adding notes, eventually turning into a chromatic aggregate. The middle part explores the melodic development of the materials that first appeared in the first part. Finally, the last part combines both the pulsating and melodic elements and bring them to the triumphant conclusion.

The dissertation of Lawrence Lee is approved.

Ian Krouse<br>Elizabeth R. Upton<br>Robert Winter<br>David S. Lefkowitz, Committee Chair<br>University of California, Los Angeles<br>2014

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## CHAPTER 1

## HISTORICAL BACKGROUND

The American composer Christopher Theofanidis (b. 1967) boasts an impressive career. The recipient of the coveted Rome Prize, a Guggenheim Fellowship, and six ASCAP Gould Prizes (to name but a few), he has earned worldwide recognition at a relatively young age. One of his most successful orchestral works, Rainbow Body (2000), has been performed by over 100 orchestras around the world-an exceptional accomplishment for a contemporary work. Its lyrical melodies, lush modal harmonies, and dramatic trajectory that concludes triumphantly have all contribute to the popularity of the work.

The jubilant G-major triad at the end of the piece, however, contains a dissonant fourth blasted by all four horns in their loudest register. This strange interval can perplex listeners as much as the satisfying conclusion pleases them. The composer is clearly making a musical statement signifying something deeper than the crowd-pleasing façade. Scrutinizing the extramusical implications of this conclusion can reveal how it influences the entire composition.

Rainbow Body is rooted in the synthesis of two remote religions and cultures: Medieval Christianity and Tibetan Buddhism. The first revolves around a German abbess from the twelfth century, Hildegard of Bingen (1098-1179), who wrote a responsory chant, Ave Maria o auctrix, according honor to Mary as a source of life and the mother of Christ. Theofanidis employs a repeating choral portion of this chant, called a repetendum, as source material throughout the composition. The words of this repetendum, "On whom breathed the Spirit of God," refer to

Mary's conception of Jesus through the Holy Spirit. Theofanidis combines the familiar and the unfamiliar by choosing a lesser-known chant that features a familiar sound and a well known theology:
Ave Maria
O auctrix vitae,
Reedificando salutem,
Que mortem contrubasti
Et serpentem contrivisti
Ad quem se Eva erexit
erecta cervice
cum sufflatu superbie.
Hunc conculcasti
Dum de cello Filium Dei genuisti
Quem inspiravit
Spiritus Dei
O dulcissima
Arque amantissima mater, salve
Que natum tuum de cello missum
mundo edidisti
Quem inspiravit
Spiritus Dei
Gloria Patri et Filio
Et Spiritui sancto.
Quem inspiravit
Spiritus Dei.

Hail Mary
O authoress of life,
Rebuilding up salvation's health, For death you have disturbed,
That serpent crushed
To whom Eve raised herself, Her neck outstretched
With puffed-up pride.
That serpent's head you ground to dust
When heavens Song of God you bore:

## On whom breathed

the Spirit of God
O sweet,
Beloved mother, hail!
Your Song from heaven sent
You have unto the world:
On whom breathed
the Spirit of God
Glory be to the Father and to the Son And to the Holy Spirit.

On whom breathed the Spirit of God

Fig. 1.1 The words and translation ${ }^{1}$ of Ave Maria o auctrix, bolded texts indicate the corresponding parts (repetenda) used in Rainbow Body

The title Rainbow Body, on the other hand, originates from a particular teaching of Tibetan Buddhism called "Dzogchen," which means "great perfection." Dzogchen emphasizes attaining the most natural condition of one's body and self-liberation through meditation. The term "rainbow body," the ultimate fruition of this practice, refers to both the final stage of enlightenment and to the rainbow that appears when an enlightened one dies physically. ${ }^{2}$

[^0]According to this practice, the body, instead of decaying, shrinks into nothingness, leaving only fingernails, toenails, and hair, while the spirit is absorbed back into the cosmic consciousness. ${ }^{3}$ "This seemed to [Theofanidis] to be the metaphor for Hildegard's music as much as anything." ${ }^{4}$ The composer thus identifies a similarity between the two disparate ideas and attempts a synthesis by attaching one to the other. How is this synthesis of meaning through superimposition embedded within the music? An examination of the historical and cultural backgrounds can reveal how they pave the way for this music.

Postmodernists, in their response to modernism, distanced themselves from intrinsic meanings attached to objects or ideas. Instead, they emphasized subjectivity and the individual perception of objects, leading to pluralism and a growing fascination with exotic worldviews such as Eastern philosophies, many of which had always been pluralistic. ${ }^{5}$ The rise of globalization and technology also expedited the dissemination of Eastern religions and philosophies to many Americans who turned to eastern religions such as Hinduism and Buddhism for spiritual guidance. This movement later came to be called the "New Age" movement.

Tibetan Buddhism rose to prominence in the west in 1962 when a Harvard psychology professor, Timothy Leary, along with Ralph Metzner and Richard Alpert, published The Psychedelic Experience: A Manual Based on the Tibetan Book of the Dead. The book was an instruction manual intended to accompany the use of psychedelic drugs-legal at the time-in order to maximize the user's transcendental experiences. The book also spoke of "paradisiacal

[^1]states" called "rainbow radiance,," ${ }^{6}$ which are likely related to the concept of the rainbow body. The popularity of the book increased dramatically when John Lennon released the song "Tomorrow Never Knows" on the Beatles' 1966 album, Revolver, based on his own psychedelic experiences using Leary's manual. Leary and Lennon gave Tibetan Buddhism enough momentum in American popular culture that, when the subsequent prohibition of LSD brought about the demise of the psychedelic subculture, the fascination with alternative spiritual experiences and Tibetan Buddhism persisted well into the 1980s, around the same time that Hildegard of Bingen's large-scale rediscovery took place.

Hildegard's status as the influential abbess of Eibingen whose writings still continue to attract many, including feminist scholars, acknowledges her remarkable achievements as a woman at such an early time in history. Originally from Rheinhessen, she began to see visions at an early age and at the age of 14 became a nun at a Benedictine monastery in Disibodenberg near her hometown. She was acknowledged as an abbess by her patron Emperor Friedrich Barbarossa when she built her own nunnery at Rupertsberg. A prolific writer, she wrote extensively about theology, philosophy, visions, and even science and medicine. As a composer, she wrote over 70 chants and also liturgical dramas including the well-known Ordo Virtutum. There are two surviving manuscripts of her notated musical works: Dendermonde, Benedictine Abbey, MS 9 (c1163-75), and the Riesenkodex, D-XII_2 (c1180-90). ${ }^{7}$

Two scholars contributed significantly to the dissemination of Hildegard's music:
Ludwig Schneider (1806-1864) and Christopher Page (b. 1952). After her death, Hildegard and

[^2]her music remained virtually forgotten for centuries outside her local community of Eibingen. With Napoleon's incursions into Germany in the early nineteenth century, her manuscripts were endangered during the subsequent dissolution of the Eibingen convent. Fortunately, Burcard Langmantel, a parish priest in Eibingen, acquired and preserved Hildegard's relics, enabling his musically trained successor Ludwig Schneider to read and study her manuscripts. Schneider became fascinated with her works and made it his life's mission to disseminate her rich legacy. He wrote an extensive document about the authentication of Hildegard's relics and a detailed study of her works as part of her veneration as a local saint, transcribing her music directly from the Riesenkodex ("giant codex"), even organizing a Hildegard festival in 1857 that "formally marks the beginning of the modern revival of Hildegard's music" ${ }^{8}$

More than a century later, Hildegard's music gained worldwide exposure through British scholar Christopher Page, who wrote an article in Early Music in 1977 that later revolutionized the way scholars thought about the performance of pre-tonal music. After an extensive study of musical instruments in medieval literature, Page asserted that liturgical music was performed $a$ cappella, contrary to the widespread belief that various instruments were in use at the time. ${ }^{9}$ To demonstrate his hypothesis, he assembled Gothic Voices to perform on BBC Radio in 1981. Ted Perry, the owner of the recently founded record company Hyperion, heard Gothic Voice perform Hildegard's music and wanted to recapture her music on a recording, resulting in Gothic Voices'

[^3]1986 album, A Feather on the Breath of God - Songs by Saint Hildegard of Bingen. ${ }^{10}$ The record went viral and brought Hildegard posthumous fame.

Following Gothic Voices' success, other early music ensembles began to perform and produce recordings of Hildegard's music. Sequentia, founded by American musicologists and performers Barbara Thornton (1950-98) and Benjamin Bagby (b. 1950), was among them. The ensemble launched the Hildegard von Bingen Project to perform her music live in 1982, about a year after Gothic Voices' appearance on the BBC, and since then has produced nine albums of Hildegard's music. ${ }^{11}$ Canticles of Ecstasy, released in 1994, contains Ave Maria o auctrix. It is unclear to which recording Theofanidis primarily listened, but Canticles of Ecstasy appears to be the likely source since he wrote another composition, $O$ vis Aeternitatis, for string quartet and piano (2000) based on a chant included on this album. Other albums released before the Rainbow Body are Hildegard von Bingen: Komponistin \& Mystikerin by the Ensemble für fruhe Musik Augsburg (1994), Hildegard von Bingen: Feminea Forma Maria by Ensemble Mediatrix (1994), Ave Maria o auctrix (also appearing in Unfurling Love's Creation by Norma Gentile,1998), Luminous Spirit Chants of Hildegard von Bingen by Rosa Lamoreaux (1998), and Vocal Music of the 12th and 13th Centuries by Mora Vocia (1999). Several recordings came after Rainbow Body.

Had Langmantel and Schneider not toiled to protect and give rebirth to Hildegard's relics, and had Page and Perry not studied and later released Hildegard's music, Theofanidis would not have had access to her music. Furthermore, various cultural revolutions in the mid-twentieth

[^4]century along with the popularization of Tibetan Buddhism also informed and inspired Theofanidis's composition. At the time of his composing Rainbow Body, both Tibetan Buddhism and Hildegard's music were still new to Americans but at the same time widespread enough to be readily available for incorporation into his music. The postmodern sentiment allowed him to put these two separate ideas together without much internal resistance.

Postmodernism acknowledged the composer's subjectivity that could combine disparate elements due to similarities that he saw. Because both ideas lack inherent meanings, they can coexist despite the differences on the surface. This philosophy is crucial to understanding not only the extramusical sources of Theofanidis's music, but the compositional features as well. In borrowing freely from past traditions, Theofanidis both acknowledges and dissociates himself from their original meanings. To understand his music we need to first identify the established techniques on which he draws. Only then can we understand how Theofanidis reinterprets them in a new light.

## CHAPTER 2

## GENERAL COMPOSITIONAL REMARKS

## FORMAL ANALYSIS



Fig. 2.1 Hildegard von Bingen, Ave Maria o auctrix vite from Symphonia et Ordo virtutum, Manuscript

The Rosenkodex manuscript categorizes Ave Maria o auctrix as a responsory, an antiphonal genre consisting of elaborate solo sections called verses and choral sections called repetenda. ${ }^{12}$ Such an antiphonal principle drives the formal procedure of Rainbow Body. Although less ornate than the verses, the repetendum melody is still melismatic and wide in range. Its strong tonal implication, balance, symmetry, dramatic arc must be the "staying power" ${ }^{13}$ that prompted Theofanidis to use this melody as the main theme of Rainbow body. Ave Maria o auctrix contains three verse-repetendum pairs, the form Theofanidis loosely follows. Therefore, on a cursory look, Rainbow Body can be said to be in a tripartite form, each section of which is further subdivided into verse and repetendum. Figure 2.2 shows an arc diagram of

[^5]Rainbow Body with a broad formal structure. The large letters-A, B, and C-signify each of the three verse-repetendum pairs and the dashed arcs show formal ambiguities to be discussed later. A closer examination will reveal how Theofanidis adds his own touch to the original chant especially in the verses.


Fig. 2.2 Simplified Arc Diagram

Theofanidis's repetenda behave relatively similarly to the original chant, as he simply states the chant melody without any motivic development except for slight alterations. The absence of any harmonic motion - with one exception in the third repetendum to be discussed later-also reflects the monophonic texture of the original chant. Theofanidis reflects the soloistic nature of the verses, although he does not utilize the verse melodies of the chant. Instead, he writes in new themes all of which are based on the repetendum melody. Moreover, he particularly develops his verses timbrally-thereby deviating from the sonic character of the original chant-for two reasons: instrumentation and history. First, the sheer size of the orchestra
allows the composer to work with a wider range of dynamics and timbres, resulting in a more complex form compared to what a solo singer can achieve.

The second influence on the formal complexity of this piece is the gradual development of form throughout history of which the composer was undoubtedly aware while writing this piece. It is difficult to understand how the piece works without involving harmonic and thematic trajectories developed a few centuries after Hildegard's time. Such forms as rondo and concerto grosso share the antiphonal nature of responsory and thus must have informed the way Theofanidis worked with the verses. As a loose rondo, this piece can be said to consist of three recurring repetenda, each with a soft introduction (or transition), and two interstitial episodes with their materials taken from the repetenda. One may also liken the relationship between the repetenda and the episodes to the ritornelli and episodes of Vivaldian concerti. In a typical Vivaldian concerto, the ripieno, or the ensemble, collectively plays each ritornello, which is thematically and harmonically stable, and the soloist dominates the episodes, exploring melodic virtuosity while modulating to different keys. The episodes in Rainbow Body also constantly modulate to different keys while the repetenda remain in one key.

Although sonata-allegro form does not play any noticeable role in this piece, certain gestures related to this form, such as a strong harmonic and thematic teleology, appear in this work. As stated before, each repetendum contains no harmonic motion or motivic development. The exuberant third repetendum, however, features the only straightforward harmonic motion involving the leading tone in the piece (mm. 435-437, G: IV with the anticipating leading tone in the melody - $\mathrm{vii}^{\otimes^{6}}{ }_{5}$ with an anticipating tonic in the third trumpet reached by the melody a bar later). Lurking behind the medieval drones and a series of non-functional diatonic harmonies is

Theofanidis's effort to hold off any cadence until the last ten measures of the entire piece, the climactic culmination that quenches the subconsciously grown "longing" throughout the piece. To heighten the dramatic arc leading to this climax, the piece also contains an extensive transition section with a bass pedal tone, similar to the transition back to the recapitulation in a typical $18^{\text {th }}$ - and $19^{\text {th }}$-century sonata form, where the harmony typically "stands on the dominant." ${ }^{14}$ Although the dominant-tonic relationship in this piece is unclear, the transition section heavily emphasizes the pitch $D$, the dominant of the ultimate key of G.

The following arc incorporates both the tripartite-responsory form model and the rondoritornello form model.


Fig. 2.3 Arc diagram

[^6]Here, I indicated the subsections with R (repetendum) and S (episode), ${ }^{15}$ along with I (Introduction) and T (transition). The episodes remain somewhat independent from the overarching dramatic trajectory, from the delicate beginning to the boisterous ending. Instead, they provide timbral and textural contrasts to the repetenda without much palpable tonal development in a Romantic sense. Whereas the first two repetenda are serene, meditative, and static, with an incessant drone and no harmonic movement, the episodes are volatile, passionate, and even suspenseful, with rapidly changing timbres, textures, as well as harmonic centers.

The soloistic nature of the verses is now manifested through various subsections that present contrasting orchestral colors. Some of these subsections sound different from the rest of the subsections particularly in that they begin in near silence and with sparing orchestration while portending the sonic nature of their immediately subsequent repetenda. The first verse consists entirely of these preparatory subsections whereas the second and third verses conclude with the preparatory subsections after a variety of contrasting subsections. Therefore, I will call the subsection that precedes the first repetendum the "Introduction" and the other two "Transitions" for further distinction. The rest of the subsections, in contrast, tend to be louder in dynamics and thicker in orchestration. I will call the second and third verses "episodes" appropriated from ritornello form and reflecting their episodic nature. I have kept the term "repetendum" because Theofanidis took the melodic and timbral materials from the repetenda of the original chant.

Although I followed the convention by including the transitions in the episodes, I also added dashed arcs that combine Repetenda II and III with their respective preceding transitions

[^7]to demonstrate their similarity to the relationship between the Introduction and Repetendum I.
However, unlike the Introduction or T1 that clearly states the beginning of the chant melody, T2 and T2' are based on a new theme first introduced in S5. This melodic behavior highlights the final return of the chant melody at Repetendum III.

A few subsections, particularly S1 (mm. 106-119), S4 (mm. 170-204), and S4’ (mm. 243270), are actually two distinctive subsections shown as one in the diagram due to their brevity and relative insignificance, yet they are nevertheless worth discussing. S1 begins with a pompous 5-bar transitional section that paves the way to the entrance of S1 theme. S4 consists of a percussive section followed by tremolo section. In S4', an amorphous subsection leads to another tremolo section with an unrestful harmonic motion through parsimonious voice leading (PVL).

## MOTIVIC ANALYSIS

As mentioned above, the episodes comprise solely the new themes based on the repetendum melody. ${ }^{16}$ Figure 2.4 shows the principal melody of the chant, as it first appears in Rainbow Body, broken into five motives. Theofanidis develops these motives extensively by repeating, fragmenting, and combining multiple motives in various transpositions.

[^8]

Fig. 2.4 Motivic Analysis of the first iteration of the chant, mm. 38-60

Motif I comprises a major triad based on the final with an elongated 4-3 appoggiatura. The gracefully falling and bouncing contour with a lengthy "non-harmonic" tone make the otherwise mundane major triad much more interesting. The same major triad reappears in a more straightforward fashion later in the chant as an ascending arpeggio (Motif V ) to balance the extended dissonance of P4 in the beginning, firmly establish the key, and prepare for the ending. Theofanidis never uses Motif I in its entirety for thematic variation, likely due to its distinctive character, to which secondary themes would be expected to provide a contrast. Instead, Theofanidis divides it into a falling P5 (Ia) and a "sigh" motif, the appoggiatura portion of the motif (Ib), and develops them separately.

Ia forms the basis of the P5 (or P4) relation that prevails throughout the composition. Counting the third pitch (A4), we now have stacked P5s (or P4s), further enhancing the fifth relationship. This three-note fragment of the motif-referred to as Motif I trichord from now on-later becomes a distinct theme that does not resolve the dissonant appoggiatura. The P5 relation is used in two ways: through the use of drones and through tonal ambiguity. While drones are nearly omnipresent, tonal ambiguity underlies the unstable and developmental sections outside his repetenda-the introduction and the two episodes, which we will discuss more in detail. Due to the lack of a clear harmonic center in those sections, Theofanidis often alternates between two competing tonal sonorities a P5 apart with ambiguous functions. For example, the opening section moves back and forth between A-based sonority and D-based sonority, wherein it is unclear whether the two sonorities are in a tonic-dominant or tonicsubdominant relationship. Such tonal ambivalence works on a melodic level as well. Even when the bass and the drone gravitate toward one particular key, the melody tends to emphasize another pitch a P5 away, especially the fourth, as discussed with the Motif I trichord.

The P5 ambiguity is also manifested in the solo cello, which enters only in the introduction and plays Motif I in D major, followed by a series of quintal leaps (mm. 13 and 26), C, G, D, and A. The first open string dyad (C2-G2) foreshadows the final fluctuating tonalities at the last section of the piece (mm. 378-end), which is preceded by the fluctuating tonalities of the introduction, D and A (mm. 344-377), also played by the solo cello, thereby providing a nice harmonic frame.

This P5 relationship fills nearly the entire piece (with notable exceptions). The following list outlines all of the P5 pairs in the composition.

| Measures | Tonal Center(s) | Drone(s) ${ }^{17}$ |
| :---: | :---: | :---: |
| 1-37 | A - D | A-E |
| 38-105 | E | E-B |
| 106-111 | Eb - Ab | $\mathrm{E}, \mathrm{B}$ b |
| 112-119 | B, | B |
| 120-128 | Gb | Gb - D, |
| 129-140 | F | F-C |
| 141-144 | A | $\mathrm{A} b-\mathrm{Eb}-(\mathrm{Bb})$ |
| 145-169 | E, | Eb |
| 170-204 | E | Eb |
| 205-220 | D | D ${ }^{\text {- (F) }}$ |
| 221-242 | D ${ }^{\text {b }}$ | D, |
| 243-250 | A | N/A |
| 251-270 | Ambiguous | N/A |
| 271-280 | A | A - (C) |
| 281-290 | A - D | D - A |
| 291-300 | A | A - E |
| 301-343 | C\# | C\# |
| 344-359 | A - D | A - (C\#) |
| 360-377 | A - D | A - E |
| 378-407 | G | C-G |
| 408-457 | G | G-(B) - D |

Fig. 2.5 The exhaustive list of P5 pairs; pitches in the drone outside the P4 relationship are shown in parentheses
Looking at the list, one can easily notice a harmonic trend. First, the harmonic centers generally shift either via a P5 or a half step. Episode I mostly explores closely related flat keys, leading to the Repetendum II in an affiliated key, $\mathrm{D} b$, which is enharmonically the third of the original key, A major. The second episode reintroduces key centers from the introduction, and then returns to the immediately preceding flat key area ( $\mathrm{D} b$, now spelled as C ). Thus far, all the important key centers, E, A, D, and C\#, spell out Motif I in A major. Finally, the ultimate repetendum introduces a completely new key, which has been deliberately reserved until its fresh entrance.

[^9]In addition to its frequent appearance as a standalone motif, Motif Ib paves the way for the idiosyncratic chromatic and non-tonal harmony in this piece to contrast with the diatonic façade. Saying that a single appoggiatura motif begets the chromatic nature of the entire composition may be an overstatement; however, certain specific instances suggest that the connection is more than sheer serendipity. First, Motif Ib (and IVa, which is an embellished form of Ib) is the only motif in the chant that highlights a semitone motion and underscores a dissonant tone (the fourth). Second, Episode I begins and ends with a Phrygian cadence, created by the bass note stepping down a semitone. The melody of Repetendum I steps down from the final to the leading tone, as if resolving the dissonant melody and becoming the final and bass of the following strikingly dissonant chord that opens Episode I. Episode I also ends with the bass stepping down from D to $\mathrm{D} b$, the principal pitch of Repetendum II. S4 and S4', the most chromatic subsections of the piece, draw their sources largely from Ib. Even within a section, most notably Episode I, Ib influences the nature of modulation. The base scale that feeds the pitch material for the modes gradually shifts via half step changes to only one or two of its notes at a time. Lastly, Ib's half step relationship seems to be behind the "wrong" note motif (to be discussed in detail later). Unlike Ia , Ib easily lends itself to thematic development, appearing in S2, S2', S4, and T2.

Motif II is essentially a single note (B4 in its first appearance) with an upper neighbor tone, an embellished platform for a dramatic leap to the local apex of the melody. Rather than appearing as a standalone motif, Motif II is attached to or combined with other motives creating a hybrid, as seen in S3, S2', and S5. The triplet ${ }^{18}$ rhythm of the motif also takes prominence to intensify the rhythm in both episodes, especially T2. Though rarely developed in the episodes,

[^10]the chant reuses the symmetrical nature of this motif in IVa (G\#4-F\#4-G\#4, an inversion of II) and the extended version in the last few measures (F\#4-E4-C\#4-E4-F\#4). Symmetry plays a minor role in a large-scale formal procedure but rarely appears on a motivic level. We will return to this point when discussing Episode II in the next chapter.

The dramatic leap immediately leads to a scalar descent, a balancing gesture in both its directionality and intervallic content. The descending tetrachord from the final down to the dominant (Motif IIIa) is again balanced by the subsequent ascending tetrachord from the lower final up to the subdominant (Motif IIIb). These two scalar tetrachords not only complete the major scale, but also emphasize the dominant and the subdominant-again, underscoring the significance of the P5 relation and especially the Motif I trichord. The ascending tetrachord revisits the aforementioned 4-3 appoggiatura, this time with an embellished resolution including a lower neighbor tone on the third (Motif IVa)—a mirror image of Motif II. Thus IVa is a variation of Ib with a II inversion that ornaments the tone of resolution. Theofanidis alters Hildegard's original chant in order to highlight the appoggiatura, as the original chant jumps down from $\hat{4}$ to $\hat{2}$. Theofanidis uses Motif III most frequently throughout the episodes $\mathrm{S} 2, \mathrm{~S} 3$, and T2. He also combines IIIa and IIIb to form a new motif, which I call the "wedge" motif.


Fig. 2.6 Wedge motif, mm. 35-36
The wedge motif, an important formal demarcating device that recurs throughout the piece, consists of stepwise bifurcation of an initial sustaining pitch that acts as the axis. Motives IIIa and IIIb play simultaneously to form this new motif through temporal displacement. It can
also be described as a juxtaposition and thus synthesis of two disparate and seemingly conflicting forces that nevertheless share a similar essence, a theme that dominates the entire composition including its very title. As a result of the philosophical weight it bears, the wedge motif continues

| Measures | Note of axis/mode | Instruments | Signaling | Note |
| :--- | :--- | :--- | :--- | :--- |
| $35-36$ | A Aeolian | Tutti, except tbn., tba., <br> timp., vln. I, vla. and <br> cb.. | Repetendum I | The first instance |
| (197) | Ab Aeolian | Tbn. I and II | T1 | Consists of only two <br> instruments each <br> playing three notes <br> over a bass; too weak <br> to be considered as a <br> full wedge motif |
| $248-249$ | A Aeolian | Hn. I and III, Tpt. I, <br> Tbn. I and II, Hp., <br> Pno., Vln. I and II, and <br> Vla. | Episode II | Occurs at the end of <br> Motif IIIa development <br> and shifts modality <br> from A Lydian to A <br> Aeolian |
| $291-300$ | E Aeolian | Clarinets, bassoons and <br> vln. I and II | S5 | Extensive development <br> of the wedge motif <br> preparing for SoD |
| (380-403) | G major | Tutti, except bsn. III, <br> hn. I, II, and III, <br> trumpets, trombones, <br> pno, and cb. | Repetendum III | The wedge motif <br> broken down into two; <br> in a major mode for the <br> first time |

Fig. 2.7 The list of wedge motives
to reappear at important moments. The following chart lists the three instances of the wedge motif with an additional two in parentheses that bear enough resemblance to the wedge motif to be noted here.

The conclusive motif IVb features a strong minor pentatonic sound (a m3 leap followed by a M2 step). Again, Theofanidis changes the original chant slightly by omitting the lowered $\hat{7}$ between $\hat{6}$ and the final. The resulting pentatonic sound, along with a fragment of Motif V , later develops into the first distinctive theme, S1, which in turn transforms into a more complex S3. It is worth noting the contrast the composer creates by using the last two motives of the chant as the first "secondary" theme. After S1, Theofanidis never develops the blatantly triadic nature of

Motif V, but reserves its use until the very end, when it repeats, accelerates, and leaps to the leading tone, outlining a major seventh chord and preparing for the final resolution of the entire composition.

Another amendment to the original chant is worth noting. Theofanidis ends the first phrase on $\hat{2}(\mathrm{FH})$, alluding to common practice tonality (half cadence) and reserving the final resolution to the tonic until the end of the second phrase. Hildegard's original chant, on the other hand, always ends on the final. Theofanidis's alteration therefore makes his repetenda sound like antecedent and consequent clauses.

## THEMATIC FLOW CHART

Figure 2.8 shows the thematic flow of each motif of the chant. The "Repetenda" box contains the aforementioned five motives taken from the original chant and also used in Theofanidis's own repetenda. The other two boxes contain Theofanidis's own themes based on the five repetendum motives as they appear in the repetenda. The "Episodes" box pertains specifically to the two Episodes. The "Global" box contains the motives and elements that can be found throughout the piece. Phrygian cadence, for example, occurs at the transition between sections.

As can be easily seen, all the new motives are derived from at least one of the first original motives. The arrows indicate which original motif forms each of the new motives. For instance, the two arrows starting from IVb and $V$ and pointing at $S 1$ show that $S 1$ is the combination of IVb and V . Though rarer, the arrows also demonstrate which new motif becomes
another new motif. S1 and S2, which originally appear in Episode I, reappear as S1' and S2' in Episode II. Also, S3 is a more elaborate form of S1, although an argument can be made that they are two independent themes that both happen to begin with Motif IVb.

## Repetenda



Fig. 2.8 Thematic flow chart

## DETAILED FORMAL ANALYSIS

The following chart provides more detailed information about the form, now including the motivic development in each subsection. "Time," taken from the Atlantic Symphony/Robert Spano recording on the TELARC label that the composer endorses in his score, provides an alternative tracking yardstick to the rehearsal letters and measure numbers, reflecting his preference for a literal reading of the tempi and the fact that measure numbers can be misleading as they do not reflect tempo changes.

| Section | Intro |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Subsection | I1 |  | I2 |  |
| Rehearsal letters |  | A |  | B |
| Measures | 123456 | 01112131415 | 1718192021 | 22324252627282930313233 |
| Time | 0:00 | 0:20 | 0:38 | 0:52 |
| Mode | A ambiguous | DM - AM - Am | A ambiguous | Dm - Am - A ambiguous |
| Motif | Ia + Ib | $\mathrm{I} \rightarrow$ Ia var. $\rightarrow \mathrm{Ib}$ | Ia + Ib | $\mathrm{I} \rightarrow \mathrm{Ia}$ var. $\rightarrow \mathrm{Ib}$ |
| Note | Atmospheric | Vc Solo |  | Vc Solo |



| Section | (Repetendum I) |  |
| :---: | :---: | :---: |
| Sub | (R') | R" |
| Reh |  | E |
| Measure | 70717273747576777879808182 | 8384858687888990919293949596979899100101102103 |
| Time |  | 3:14 |
| Mode |  |  |
| Motif |  |  |
| Note |  | More var. |


| Section | Episode I |  |  | S2 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Sub |  | S1 (trans) | S1 | S2' |  |
| Reh |  | F | G | H | I |
| Measure | 103104105106107108109110111112113114115116117118119120121122123124125126127128129130131132 |  |  |  |  |
| Time |  | $4: 04$ | $4: 13$ | $4: 24$ | $4: 37$ |
| Mode | Eb - Ab ambiguous | Bb Aeolian | Gb Lydian | F Phrygian |  |
| Motif |  | IVb + V | IIIa + Ib | IIIa |  |
| Note |  | Chromatic cluster |  |  | "wrong" |


| Section | (Episode I) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sub | (S2') | S2" | S3 (trans.) | S3 |  |
| Reh |  |  | J | K | L |
| Measure | 133134135136137138139140141142143144145146147148149150151152153154155156157158159160161162 |  |  |  |  |
| Time |  | 4:48 | 4:53 | 5:03 | 5:16 |
| Mode |  | Ab Aeolian | Eb Mixolydian | Eb Mixolydian b6 |  |
| Motif |  | IIIa | I' trichord | IVb + II + IIIa |  |
| Note |  |  |  | Haloing |  |


| Section | (Episode I) |  |
| :--- | :--- | :--- |
| Sub | (S3) | S 4 |
| Reh |  | M |
| Measure | 163164165166167168169170171172173174175176177178179180181182183184185186187188189190191192 |  |
| Time |  | $5: 28$ |
| Mode |  | Chromatic |
| Motif |  | Ib |
| Note |  | Prominent percussions section |


| Section | (Episode I) | Repetendum II |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Sub | (S4) | T1 | R"" |  |
| Reh |  | N | O | P |
| Measure | 193194195196197198199200201202203204205206207208209210211212213214215216217218219220221222 |  |  |  |
| Time |  | $6: 10$ | $6: 25$ | $7: 15$ |
| Mode |  | D $\$$ Phrygian | DbM $\rightarrow$ Mixolydian b6 | DbM |
| Motif |  | IIIa | I' trichord | Chant |
| Note |  | Tremolo | Transitional |  |


| Section | (Repetendum II) | Episode II |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Sub | (R"') | S4' (trans.) |  | S4' |
| Reh |  | Q |  | R |
| Measure | 223224225226227228229230231232233234235236237238239240241242243244245246247248249250251252 |  |  |  |
| Time |  | 8:07 |  | 8:26 |
| Mode |  | C\#m | Am | Ambig. |
| Motif |  | IIIa' ${ }^{\text {a }}$ var. | Wedge | Ib? |
| Note |  |  |  | PVL |


| Section | (Episode II) |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Sub | (S4') |  | S1’ | S2’ |
| Reh |  | S | T | U |
| Measure | $253254255256257258259260261262263264265266267268269270271272273274275276277278279280281282 ~$ |  |  |  |
| Time |  | $8: 46$ | $8: 51$ | 9:02 |
| Mode |  | WT | A Dorian (mel. min) | D Lyd. |
| Motif |  | Ib | IVb + V | IIIa |
| Note |  |  |  | Triplets |


| Section | (Episode II) |  |  |
| :--- | :--- | :--- | :--- |
| Sub | (S2') | S5 |  |
| Reh | $\mid$ |  | V |
| Measure | 283284285286287288289290291292293294295296297298299300301302303304305306307308309310311312 |  |  |
| Time |  | $9: 13$ | $9: 27$ |
| Mode |  | A Dorian | C\# Phrygian |
| Motif |  | Wedge | II + IVa |
| Note |  | Dev. of Wedge | March/SoD |


| Section | (Episode II) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Sub | (S5) |  |  |  |
| Reh |  |  | X | Y |
| Measure | 313314315316317318319320321322323324325326327328329330331332333334335336337338339340341342 |  |  |  |
| Time |  | 9:51 | 9:57 | 10:15 |
| Mode |  |  | C\# pedal | C\# Mix. b6 |
| Motif |  |  | I' trichord | II + IIIa |
| Note |  |  | Ravelian harmony |  |


| Section | (Episode II) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Sub | (S5) | T2 |  |  |
| Reh |  | Z | AA | BB |
| Measure | 342343344345346347348349350351352353354355356357358359360361362363364365366367368369370371 |  |  |  |
| Time |  | 10:20 | 10:40 | 10:50 |
| Mode |  | AM | A: I - IV |  |
| Motif |  | $\mathrm{IIIb}+\mathrm{Ib}$ | IIIb | I \& IIIb |
| Note |  | transitional |  |  |


| Section | (Episode II) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sub | (T2) |  | T2' |  |  |
| Reh |  |  | CC | DD | EE |
| Measure | 372373374375376377378379380381382383384385386387388389390391392393394395396397398399400401 |  |  |  |  |
| Time |  | 11:00 | 11:01 | 11:10 | 11:19 |
| Mode |  | G: IV - I |  |  |  |
| Motif |  |  | IIIb + IIIa | IIIb + IIIa | IIIa + IIIb |
| Note |  |  | Rhythmic Augmentation | Transitional |  |


| Section | (Episode II) | Repetendum III |  |
| :--- | :--- | :--- | :--- |
| Sub | (T2') | $\mathrm{R}^{\text {iv }}$ |  |
| Reh |  | FF | GG |
| Measure | 402403404405406407408409410411412413414415416417418419420421422423424425426427428429430431 |  |  |
| Time | 11:28 | $11: 34$ | $11: 52$ |
| Mode | (G: IV - I) | GM |  |
| Motif | I + IIIa + IIIb | Chant |  |
| Note |  |  |  |


| Section | (Repetendum III) |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Sub | (Riv) |  | HH | II |
| Reh |  |  |  |  |
| Measure | 431432433434435436437438439440441442443444445446447448449450451452453454455456457 |  |  |  |
| Time |  | $12: 19$ | $12: 25$ | $12: 41$ |
| Mode | (GM) | IV | GM |  |
| Motif | V var. |  |  |  |
| Note |  |  |  |  |

Fig. 2.9 The detailed chart of formal analysis

## THE HALOING TECHNIQUE

Following the dissolution of common practice tonality around the fin de siècle and the rise of serialism in the mid-20th century, tonality underwent a unique evolution. In addition to the nonfunctional diatonic harmony and minimalist music more frequently discussed, neo-tonal, sometimes referred to as pan-tonal, composers began to experiment with tone clusters. While eschewing abstract and chromatic clusters à la Penderecki, they were still able to produce new sounds with recognizable diatonic sonorities, leading to interesting compositional possibilities from both contrapuntal and harmonic vantage points. This "new" tonality also involved an increased tolerance for dissonance as well as the continued evolution of extended tertian harmony, which now allows composers to voice any pitch from a given scale in any way. Take the opening four measures of Henryk Gorecki's Symphony No. 3 movement 2, for instance.
the damper pedal of the piano. The upper two cello voices hold E4 and G\#4, while the violas step down from E4 and G\#4 to D4 and E4, producing a Lydian cluster (D, E, F\#, and G\#). These added tones and diatonic clusters not only enrich the otherwise mundane plagal motion with an iridescent palette of superimposed intervals, but also open doors to new ways of navigating tonal counterpoint.


Fig. 2.10 Henryk Gorecki, Symphony No. 3 Mv. 2 mm. 1-4
"Haloing," or "wet acoustic," arguably the most definitive compositional mark of the piece, operates according to a similar principle. Coined by Theofanidis himself, "haloing" caught the attention of the media and became the selling point of the composition, appearing in many program notes, album reviews, and magazine articles. In pointing out its importance, the review published in the Post-Gazette states that "the Hildegard theme grows using this technique rather than, say, the sort of thematic development that Romantic composers used." ${ }^{19}$ At first glance, it appears and sounds similar to the tone cluster many neo-tonal composers from the second half of the 20th century had already established. However, Theofanidis refines and appropriates the technique within a specific context, reinterpreting a medieval chant in a contemporary orchestral composition. In addition to imitating medieval chant by using drone and monophony, both of

[^11]which will become evident in the following example, the composer attempts to recreate typical cathedral acoustics characterized by long natural reverberation. In order to compensate for relatively dry modern concert halls in comparison to medieval cathedrals, he writes the reverberation into his orchestration. In his own words, Theofanidis "[tried] to capture a halo around [Hildegard's] melody, creating a wet acoustics by emphasizing the lingering reverberation one might hear in an old cathedral. ${ }^{, 20}$ In an interview with NPR Music, Robert Spano also aptly described the technique as "creating resonance by having some instruments prolong a note after the tune has moved on to the next note; he is creating a reverb." ${ }^{21}$ The haloing technique first appears in the unaccompanied string orchestra whose homogenous timbre


Fig. 2.11 Theofanidis, Rainbow Body, mm 38-46

[^12]efficiently mimics the long reverberation of a seamless melody.

At Repetendum I, during the first statement of the chant (R, m 38), the first violins and the outside celli serve as the predominant carriers of the main melody, playing in perfect unison. The second violins and violas, both divided into two parts, sustain in turn their notes of the melody, one at a time, thereby creating a pad effect, an illusion of long reverberation or playing the melody on a piano with the damper pedal depressed. In the fourth measure (m. 41), the second violas play the first note, B4, and sustain for eight beats, immediately producing a M2 interval with the melody followed by P4, M3, M2, and unison. The first violas play the first two notes of the melody, B4 and C月4, and then hold the second note, which in turn creates a sustaining M2 with the second viola and a M2, m3, M2, unison, and M2 with the melody. The outer second violins play the melody until the leap up to E5, then stay, subsequently adding m 2 , m3, and P4 intervals above the melody. Lastly, the outer second violins follow the melody until it steps down from the apex and then rests on $\mathrm{D} \sharp 4$, soon forming M 2 and M 3 intervals with the melody. Collectively, these halo pitches complete the upper tetrachord of E Ionian, along with the lower E drone, sounding:


The strings invariably behave this way in both Repetenda I and II. The woodwind section in unison, without a haloing texture, doubles the melody during the third statement of the chant (R") in Repetendum I, although it creates the lower pentachord cluster of A Aeolian via haloing at the first appearance of the wedge motif ( $\mathrm{mm} .35-36$ ). The woodwinds also create a halo at S2
(mm. 129-144) and form the upper tetrachord cluster of F Phrygian and subsequently the entire $A b$ (G\#) Aeolian scale, essentially in the same way as the strings were described above. The more interesting instance of woodwind haloing worth mentioning appears in the next section, S3, whose theme truly makes maximal use of the haloing technique.


Fig. 2.12 S3, Woodwinds, mm. 149-155

In this section, the first and second flutes and the second clarinet play the theme in its entirety. The contour, which begins with a rhythmic diminution of S 1 , alternates between a flurry of sixteenth notes and a long note. The other instruments, again, one by one, sustain their respective notes of the melody. After each long note, the winds begin playing the flurry notes again, stopping and sustaining in designated places. The first and second parts work straightforwardly, behaving similarly to the strings discussed above. The second measure ( m . 151) after rehearsal K and the first two beats of the fourth measure (m. 153) respectively form
the following clusters:


The third part advances the technique by reinstating a halo on each beat, therefore creating a slightly more complex texture. On the third and fourth beats of measure 153 , while the flutes, the second oboe, and the second clarinet all play the main melody in sixteenth notes, the first oboe and the first and third clarinets punctuate different rhythmic figures, again, by halting at the second, first, and third notes, respectively.

For the rest of the piece, woodwinds reintroduce the haloing technique at the wedge section at the end of S2' (mm. 291-300), in T2' (mm. 380-407), and finally in the last repetendum when they join the strings in the first descending tetrachord (IIIa) before the tutti unison dissolves the halo altogether. The brass, on the other hand, contributes to the haloing texture more indirectly except for a straightforward brass halo in Episode II (mm. 243-47).


Fig. 2.13 Reh. E, mm. 83-87

In R", the third statement of the chant in Repetendum I, the swelling muted horns' and trumpets' chords overlap each other over the E-B drone played by the lower brass. The horn dyad, E4-G\#4, while providing the third of an E major triad not present in the melody in the first measure, creates a dissonant m 2 (and m9) with the melody. Meanwhile, the trumpet chord, B3-E4-A4, by sustaining for eight beats, clashes with the upper horns and the melody when it resolves down to G\#4. The swelling brass figure continues throughout the subsection.


Fig. 2.14 Reh. BB mm.369-372

The cluster-like sonic character first produced by the haloing technique reappears in other contrapuntal contexts, as can be observed in measures 369-379 when the horns repeat the Motif I trichord. The appoggiatura D4 by horns I and III and the resolved note C $\# 4$ by horns II and IV are played simultaneously, thus creating a m2 clash. Together with the sustained A3 and E4 on the trombone drone, the horns form a mini-cluster of all four notes of Motif I by way of deliberate temporal displacement of Motif I. Thus, this halo melody re-contextualizes tonality and counterpoint by freezing time. ${ }^{22}$ One connection between Medieval Catholicism and

[^13]Dzogchen practice hinted by the composer's words is the surrounding light, which can be manifested as a halo around a saint or a rainbow body around an enlightened one. Theofanidis was trying to sonically recreate an image of a halo. The haloing technique, therefore, holds the key to understanding one of Theofanidis's crucial motivic developments of the original chant.

## THE"WRONG" NOTES TECHNIQUE

Although less common than the haloing technique, the "wrong" note technique can also be found throughout the composition. Theofanidis places seemingly misspelled and out-of-place notes deliberately assigned to instruments with a bright timbre such as the double reeds or the brass over otherwise straightforward diatonic chords. These "wrong" notes do not belong to the presiding mode or the intrinsic harmonic nature ${ }^{23}$ of the subsection and produce a noticeable clash with the rest of the present chord or diatonic cluster. These pitches may be regarded as a different kind of cluster, which is first introduced by the haloing texture. This cluster may also be said to be an extension of Motif Ib . The following chart provides the exhaustive list of "wrong" notes and their accompanying chords.

The first three examples are the straightforward "misspelled" notes, where the "wrong" notes do not seem to have much logical explanation in a traditional sense. The bellowing

[^14]| Measures(s) | Chord | "wrong" | Instr.(s) | "correct" | Instr.(s) | Note |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 106-109 | Abm(add2)/Eb | A4 | Cl II | $\mathrm{A} b 4$ or <br> Bb4 | Ab4: Fl II, Ob II, Tpt II, and Pno Bb4: Hn I, and III | Chromatic cluster (Ab4, A4, Bb4, B4) |
| 132 and 138 | C ${ }^{\varnothing} 7 / \mathrm{F}$ (F7sus b9) | G4 | Ob I | Gb | Tpt I, Tbn I, Hp, Pno, and Vla | Hardly audible |
| 251 | D Lydian lower pentachord cluster | F3 | Bsn I, Hp, Pno, and Vla | F\#3 | Tbn II | major-minor bichord |
| 369-377 | Gsus4 | B3 | Hn II and IV | C4 | Hn I and III | Temporal disposition |
| 436 | $\mathrm{F} \#^{\varnothing} 7 / \mathrm{A}\left(\mathrm{G}:\right.$ vii ${ }^{\text {¢ }}{ }_{5}$ ) | G4 | Tpt III | F\#4 | None, played in different octaves | Anticipating the resolution. |
| 451-454 | Gsus4 | B3 | Tbn I | C4 | Horns, played in different octaves by Cl II, Hp, Pno | Ambiguous harmony |
| 455-457 | G major | C5 | Horns, Hp, and Pno | B4 | Tbn I, Hp, and Pno | Anticipated by the melody in mm. 439-450. |

Fig. 2.15 The list of "wrong" notes
chromatic cluster in measures 106-109 effectively introduces the first episode by sharply contrasting with the preceding pensive repetendum. The base harmony without the "wrong" note, the second inversion of $A b$ minor (add 2), already contains a three-note cluster $(A b, B b, C b)$. The "wrong" note, A4, completes the chromatic cluster between Ab4 and B4. In measures 132 and 138, as the descending pentachords (IIIa) develop, the mode shifts from the initial Lydian to Phrygian to add energy to the storm. The "wrong" pitch of G4, now in the oboe, clashes with the already pungent flat 2 of the scale. Measure 251 mirrors the first example already discussed. In this sudden burst earlier in Episode II, the base harmony of a D Lydian pentachord cluster (D, E, F\#, G\#, A) by itself already strikes the listeners. However, the F3 in the first bassoon introduces major-minor bitonality and increases the complexity of the sonority

The next four examples involve the temporal displacement mentioned earlier (figure
2.14). In measure 436, the "wrong" note, G4, can be described as the accented anticipated
resolution of the leading tone picked up by the actual anticipation of the melody in the following measure. The fifth example (mm. 451-454), likewise, contains an anticipated resolution in the first trombone, which plays the third as the rest of the harmony appears to suggest a Gsus 4 sonority. However, because the first trombone sounds more prominent than the harp and the piano which provide the fourth an octave higher (C5) and the horns play the fourth (C4) only in passing, an argument can be made that the chord is instead a G major triad with C 4 being the "wrong" note, or that the chord is the vertical manifestation of Motif I, playing all four notes of the motif simultaneously.

The ultimate chord, which is equally ambiguous, invites a more intriguing question. Again, the first trombone carries the third of the supposed G major triad, now an octave higher, according to the chart. To an ear accustomed to common practice tonality, ending with a 4-3 appoggiatura fanfare would make more rational sense, hence the original interpretation presented in the chart. However, all four horns blast C 4 in unison louder than the first trombone. The intentional obscurity via superimposing both the tone of appoggiatura and its tone of resolution obscures the traditional interpretation of the "wrong" note. The harp and the piano now play both the third and the fourth to accentuate this conflict.

Why did the composer decide to end the piece this way? He is certainly trying to make a cultural statement that transcends merely adding a troublesome note over a familiar harmony or mischievously sliding themes around over the temporal axis. Again, I point to the atemporal characteristic of light. In any case, this idiosyncratic ending both satisfies and troubles the listeners. Now that we have made these observations about the larger compositional features, let us take a closer look at each section.

## CHAPTER 3

## DETAILED DESCRIPTION

## INTRODUCTION

A gentle burst of energy sparked by the bass pizzicato and the timpani opens the curtain. The celli hastily brake and halt their sixteenth-note motion, as if caught in the middle of an ongoing action. The second violins provide a backdrop with their murmuring A4-E5 open string drone. It seems clear that the tonal center of A is established from the inception of the piece. However, the bass clarinet disagrees. In measure three, a whole note of $G \sharp 2$, the supposed leading tone intensified with a crescendo, evades resolution by quickly passing by A2 and overshooting to $B b^{2}$, then stepping down via A2 to G2. This figure, although faintly related to the main chant, foreshadows a motif in S 4 (m. 172 in the trombone). After a pause of two and a half beats, the bass clarinet leaps down to D 2 , affirmed by the timpani, bass pizzicato, and the bouncy bass trombone, as if we have fallen from the final. This brief harmonic movement is obscured by another vacillating chromatic skewing by the bass clarinet to C 2 and finally $\mathrm{C} \sharp 2$. Perhaps the subdominant (D) was acting as an appoggiatura to the third-first minor, then major-foreshadowing Motif Ib from the very beginning of the piece. Clearly, the key is A major. Another burst of energy triggers the flutes to launch a frantic arpeggio in A minor, with the vibraphone, harp, piano, and first violins adding to the ceaseless A dyad drone. The lurking muted first horn lingers on E4, the fifth, as the gust of flutes and high-energy drones wane. The second violins persist nonchalantly.


Fig. 3.1 The solo cello, mm. 10-15

The solo cello enters with the full statement of Motif I, to unsettle the harmonic center. The apparent key of D major suggests that the tonal ambiguity is yet to be resolved. Unable to control the potential energy, the solo cello breaks free from the chant, vigorously leaping through the entire range of the instrument. The pitch and intervallic contents of this brief figure provide a valuable hint of the key relationship that frames the entire composition. ${ }^{24}$ The initial open string double-stop pounce (C2-G2) corresponds to the tonal duality at the ending of the piece (mm. 378-end). As I will discuss in more detail, the T2' and Repetendum III revolve around a similar tonal ambiguity between G and C . For example, the bass and the bassoons incessantly rock between C and G throughout $\mathrm{T} 2^{\prime}$. The last repetendum, although clearly in G major after gathering energy for 27 bars, spins off to C , and even after returning to the "home" key of G major, the melody keeps emphasizing the pitch C. The struggle continues until the very end of the piece where all four horns play only the first three pitches of the chant, ending on C . Theofanidis thus successfully utilizes the P5 opening interval of the chant (Motif Ia) on a harmonic level without depending heavily upon the drones and the tonic-dominant relationship of common practice, both of which he also gracefully incorporates whenever appropriate. Theofanidis takes familiar harmonic gestures and re-contextualizes them in this novel way.

[^15]The two notes that the solo cello hops over, D3 and A3, signify the two competing tonal centers of the introduction. After leaning into G, repeating the suspending motion of Motif I in D major, the cello steps up to A4, then immediately upsurges to its stratospheric range in an attempt to highlight the 4-3 appoggiatura of A major triad. Again, the soloist firmly establishes A-D-G-C, the four keys a fifth apart that wrap the entire piece. $C \#$, the pitch that confirms the original key of A major, also plays a significant role. The most noticeable connection is that the second repetendum is in $\mathrm{D} b$ major, along with E major, the key of Repetendum I, clearly implying a tonal connection with A major. Although Episode I is never explicitly in $\mathrm{D} b$ major, it utilizes pitch material derived from the $\mathrm{D} b$ major scale. Moreover, the $\mathrm{C} \#$ drone of the "standing on the dominant" section, S 5 , is the longest drone of the episodes. The choice of $\mathrm{C} \#$ instead of D , the dominant of the final key of G major, hearkens to the 4-3 appoggiatura ambivalence that prevails in the piece.

Another flurry of flute arpeggio ensues, which leads to the second part of the introduction that nearly exactly repeats the first half with the only variation found in the solo cello's modal shift from D major to D minor. Then, after the leap, the solo cello seems to faithfully repeat the D4-C\#4 appoggiatura. However, as if quickly correcting itself, it rapidly replays the fast-forward version of Motif I, this time in A minor, ending with $\mathrm{C}^{4}$. The first bassoon and the first horn contradict this modal shift by echoing the first appoggiatura in major ( $\mathrm{D}-\mathrm{C} \sharp$ ).

Barring Motif I previewed by the soloist, the introduction consists mainly of sporadic and mercurial flares of distantly related materials with an ambivalent tonal center in an amorphous state waiting for the repetendum to emerge and illuminate the full body of the chant. In the words of the composer himself, it "begins in an understated, mysterious manner, calling attention to
some of the key intervals and motives of the piece. ${ }^{" 25}$ Following the second solo cello figure, the introduction softly comes to a close echoing the opening material. Suddenly the "wedge" motif enters to pave the way to the first statement of the chant.

## REPETENDUM I

The first full statement of the chant occurs in the curious key of E major. Previously, the introduction in the key of A has been serving as an extended plagal cadence that introduces a chant originally used in a liturgical setting. In this section, the chant repeats three times and each repetition occurs with slight variations via melodic alteration and insertion. In the second statement, the variation happens in measures $69,70,74$ and 80 , each time mildly intensifying the melody. The clarinets, bassoons, and horns I and II drone on E and B, the lowest note, the B, being below the ongoing cello drone on E4, thereby changing the harmony to $I_{4}^{6}$. Other than these points and a slightly faster tempo, the second statement is virtually indistinguishable from the first. The third statement, by contrast, brings more noticeable changes. The range significantly expands by nearly three octaves and the hitherto tacit winds join the strings. The upper woodwinds double the strings to play the melody, and the first violins and the flutes now play an octave higher. As described in the previous chapter, the horns and trumpets add a chordal texture to the haloing cluster. The melody undergoes more augmentation in addition to the variation from in the second statement, which continues here.

[^16]It is worth noting the meticulous control of the melodic apexes. In the first half of the first statement (m. 41), the chant jumps up to E5 followed by downward steps. During the second half (m. 51 ), it jumps up higher to $\mathrm{F} \# 5$. This variation is already supplied by Hildegard; Theofanidis takes this idea even further. During the second half of the second statement (m. 74), after reaching the peak at $\mathrm{F} \# 5$, instead of stepping down, the melody continues to stretch, hitting $\mathrm{G} \# 5$ before falling down (the figure that repeats in the first half of the third statement). Finally, during the second half of the third statement, the melody jumps again from F\#6 to A6, inserting two more beats to compensate for the wider gap to be filled with descending steps. Later, the new themes S1 and S2 adapt this meta-melody with stepwise ascents.

Additionally, Theofanidis deliberately presents the first repetendum in a simple and straightforward manner. For the purpose of offering a lucid, repetitive, and meditative passage, contrasting sharply with the imminent episode, this repetendum reflects the historical context in which Hildegard's original chant was sung, the context in which musical function trumps artistry.

The cadential closure involves a Phrygian surprise. The original chant ends as the melody steps down to the final ( E in this case). However, this final step transpires on a perceived weak beat, thus devoid of any strong conclusive power, and naturally leans towards the subsequent phrase. In each reiteration of the chant, the melody immediately leaps back to $B$, the opening pitch, without a break, thereby creating a subconscious expectation for it to do the same as the chant recurs five times. At the end of the third statement, the melody, instead of returning to the usual B , skews down to $\mathrm{E} b$, the bass of the intimidating fortissimo chord that opens Episode I. Such a half step cadential gesture seems to be akin to Motif Ib, which reappears multiple times elsewhere in various other contexts. To further heighten the chromatic nature of Motif Ib , there is
a dissonant opening chord containing a chromatic cluster from A 4 to C 4 embedded in the bass motion, including the "wrong" note A 4 affixed to $\mathrm{A} b \mathrm{~m}(\operatorname{add} 2)$ that already contains a semitone. It may be simpler and make more sense on a motivic level to analyze this chord as an Ebsus4 with two "wrong" notes- A and Cb -because Eb is in the bass and the quintal nature of the harmony is a vertical manifestation of Motif I trichord. However, I regard

Cb as a chord tone instead of a "wrong" note due to its spelling and the large number of instruments playing it. Whereas $B$ would have appeared as a misspelled $B b, C b$ comes across strongly as a m6 above the $\mathrm{E} b$ bass, suggesting a iv harmony. Additionally, $\mathrm{B} b$ is also clearly a chord tone for its presence in the drone and the bass line. Whichever analysis one prefers, this harmony successfully opens the first episode after the serene repetendum.

## EPISODE I

Another P5 tonal ambiguity ensues, similar to the introduction. While the Eb bass sustains the ephemeral Abm (add2) chord, the horns, harp, second violins, and violas keep pounding on $\mathrm{B} b$, the added tone of the chord that also initially appears to be a P5 above the Eb -based harmony. The celli and basses make an early departure from their $\mathrm{Eb}-\mathrm{Bb}$ dyad after only seven beats (as opposed to the 14.5-beat duration of the rest of the voices of the chord) dwelling on $\mathrm{A} b$, the root of the chord. Although they are the only ones with any melodic motion, their clearly audible $A b 2$ is not the lowest note and thus does not change the harmony. Furthermore, by alternating between $B b 3$ and $A b 2$, this "bass line" only verifies the harmonic ambiguity. They finally arrive at $\mathrm{B} b$ on measure 110 to settle the harmonic instability involving $A b, E b$, and $B b$, the pitch-classes a P5 apart from each other.


Fig. 3.2 Motivic Analysis of Theme S1

The $B b$ pedal point prevails, seamlessly blending into the $S 1$ passage in $B b$ Aeolian. S1, together with S3 and the wedge motif, is among the few recognizable new themes based on the chant, fusing Motives IV and V. This theme, which is in a straightforward eight-bar parallel period, ${ }^{26}$ also incorporates the ascending meta-melody—first seen in Repetendum I—in two places: the apexes and closures. In measure 113, the theme leaps from F4 to Ab4. Following the m3 jump, it plays a derivative of Motif IV. However, during the consequent phrase (m. 117), the theme overshoots to $B b$, triggering the rest of the melody to adjust accordingly. The closure of each phrase behaves similarly. The antecedent phrase ends on Eb 4 , whereas the consequent phrase, due to the adjusted melody past the overshot $\mathrm{B} b$, ends on F 4 , a step higher than Eb .


Fig. 3.3 Motivic and meta-melodic analyses of S2, mm 120-123 and mm. 126-127

[^17]After merely eight measures, S1 yields to a new transitional theme, S2, which in its first statement fuses Motives IIIa’ and Ib. Beginning with a descending pentachord in Gb Lydian, it immediately bounces back up to the initial pitch, echoing the first two pitches of the pentachord. The lengthened $\mathrm{D} b$ and the semitone drop seems to have come from Motif $\mathrm{Ib} . \mathrm{S} 2$, although clearly a new theme, is less recognizable than S1 and thus serves more as an unstable transitional theme because of its repetitive nature and strong association with Motif IIIa that also appears elsewhere. The stepwise ascending meta-melody yet again returns. In measure 121, the theme leaps up a P5 from Gb4 to $\mathrm{D} b 5$. Two measures later, the theme jumps a whole-step higher up to Eb5. The consequential clause begins the same way, but in measure 127, the theme leaps another whole step higher to F5. This note then becomes the first note as well as the bass note of the subsequent phrase in F Phrygian. The bass motion, like the transition from Repetendum I to Episode I, involves Motif Ib by stepping down a half step from Gb to F .

Measures 129 to 140 present a simplified and augmented version of the S2 theme, with only a tetrachord descent and only one preparatory note a whole step below the initial pitch instead of Ib . The woodwinds and the first trumpet now take the main melody with a haloing texture. As the theme simplifies, the mood intensifies, the charged passion perhaps deterring an accurate restatement of the theme. The dynamic rises to forte as the trumpets begin to sporadically play a jubilant triplet. Buried in the ongoing intensification is the second "wrong" note in the first oboe, which plays the raised second (G4) at measures 132 and 138.

The thematic abstraction continues, leaving only an extended stepwise descent of an octave as the energy grows to fortissimo and the trumpets nearly constantly blast the triplet figure between measures 141 to 144 . The uncontrollable energy renders this passage brief,
hastily ushering in a triumphant brassy explosion four measures later. The bells toll in triplet quarter-notes as the triangle rings to add festivity to the brassy fanfare. The eruption in triple forte dies out quickly, as the horns fade away into the distance and a new theme comes to the forefront. Here, the horns play only the first three notes of Motif I (Motif I trichord) without resolving the appoggiatura. This quintal trichord as a melody appears mostly in the brass and plays an important role toward the end. In fact, its first entrance in this triumphant conclusive passage mirrors, and thus foreshadows, the comparatively jubilant nature of the ending of the piece, when it prominently reappears.

All the energy gained from the previous sections gives birth to the flurry and agile new theme, S3, a variation of S1 and thus a more remotely related theme to the chant. Beginning with the rapid m3 leap derived from the pentatonic-like Motif IVb, S3 adds a Motif II elaboration and then series of short outbursts of flurry IIIa phrases enhanced by the suspended cymbal trilling in a crescendo. As discussed in the previous chapter, S3 also explores an advanced haloing technique in the woodwinds. This theme also draws its source from the rhythmic characteristic of the chant; both the chant and S3 are comprised of short melodic motions that arrive at a longer target note. Moreover, the ascending meta-melody continues to shape the overall melodic contour. In the first melodic fragment (m. 150), the line reaches $A b 5$, followed by $B b 5$ in the second fragment two measures later. The third fragment (m. 153) begins on Cb 5 . The fourth fragment appears to settle the ongoing melodic ascent, as it goes up only to $\mathrm{B} b$. The fifth and final fragment, however, begins exactly as the fourth fragment, as if giving another attempt to reach higher than the previous phrase, and successfully leaps up to $\mathrm{D} b 6$ after a series of cascading jumps. The piano doubles the first flute and second clarinet in playing the complete
melody as the harp and vibraphone play only the skeletons-the vibraphone being an even simpler version of the two to add sharper punctuation for each fragment and to contribute to the haloing texture. The entire section repeats, similar to many previous sections. This time, the muted horns play F4, G4, and $\mathrm{A} b 4$ to fill the empty register right above the trombone's ongoing Eb4 drone.

After the second statement of S3, S4 emerges without any preparation. S4 acts as S3's foil in many aspects. It is low in register, loud in dynamic, dull in motion, and brass-dominant in timbre. Whereas S 3 is arguably the most complex variation of the chant, S 4 would be the most abstract and even the most primitive. The melodic contour has been simplified to reiterations of a single pitch (Eb) and stepwise motions, nearly completely devoid of leaps. Despite the lack of any recognizable thematic melody, however, its rhythm still resembles that of Motif I, as shown in figure 5.


Fig. 3.4 S4, mm. 170-171
This initially minimal melodic contour gradually grows complex. In fact, the ascending meta-melody, largely hidden in the previous sections, finally receives more attention. Just as a butterfly attempts to free itself of the cocoon, the upper trombones slowly move away from the omnipresent Eb drone by repetitive stepping-ups and falling-downs. Initially, the first trombone does not stand apart as the melody, since it is buried in bassoons, celli, and basses blasting the same Eb an octave lower. It reaches a m 2 up only to fall back down to Eb , and then gradually steps down to $\mathrm{B} b$ in measure 176 . While the other instruments remain on the same pitch, the first
trombone continues its upward movement, this time successfully rising from F3 to Ab4 over 12 bars. The basses later begin their own ascent in measure 190 , reaching $B b 2$ in measure 195 . This perpetual climbing appears to be one of the vestigial Romantic themes difficult to avoid when writing accessible neo-tonal music. Virtually every subsection discussed thus far has involved some sort of rising motion, or reaching higher. Following a mini wedge motif in measure 197, demarcating an important change, the extended rising motion abruptly comes to an end with a tragic denouement. The tremolo lower strings descend the entire D\# (Eb) Phrygian scale.

Theofanidis meticulously advances the modes in Episode I. The initial mode, Bb Aeolian, which is the sixth mode of the $\mathrm{D} b$ major scale, gradually morphs by switching one or two notes at a time. The next two modes, Gb Lydian and F Phrygian, still remain in the same scale, only


Fig. 3.5 Scales from Episode I. Each scale is arranged from Dbup for better comparison of the altered pitches indicated with parentheses.
adding dissonance in relation to the bass. At the third transition, C and F flatten and the scale shifts to Cb major (B major), providing the pitch contents for $\mathrm{Ab}(\mathrm{G} \#)$ Aeolian. At $\mathrm{S} 3, \mathrm{~F}$ and G become natural, forming Eb Mixolydian b6. The entire S 4 hinges on the modal ambiguity involving, again, F and G, which alternate between flattened and natural notes. Episode I ends in D\# Phrygian, the third mode of Cb major.

Another notable feature is the emphasis of the flat seven in S3 and S4 (Eb Mixolydian b6). As mentioned earlier, the original chant contains both the leading tone and the subtonic. Theofanidis eliminates the subtonic and thereby the modal ambiguity altogether in his repetenda,
but heavily dwells on them in the latter half of Episode I. The brass, in particular, continuously pound on the pitch $\mathrm{D} b$, below the local final Eb in S 4 . He simultaneously explores different modal spheres and acknowledges the modal ambiguity inherent in the source material.

The modal ambiguity in S 4 also functions as a nexus between the first two repetenda. Throughout S 4 , the bass and cello drone on Eb 2 , occasionally neighbors to Db and Fb , circling around the final. The first trombone also highlights Fb , particularly with the Motif Ib glissando. It is also interesting to note the return of the chromatic bass clarinet figure from the introduction (m. 4) in the first trombone touching Fb 3 and $\mathrm{D} b 3$ in measure 172. Therefore, the local final Eb serves as the pivot between E, the final of Repetendum I, and $D b$, the final of Repetendum II. It is also a tritone away from the final of the Introduction, marking the harmonic "far-off point" from the original "key."

In measure 202, the contrabassoon, tuba, harp, piano, and celli prepare another important Phrygian cadence. After completing the scalar descent the second time, the celli stay on D2, a pitch outside the mode that creates a harsh dissonance with the other strings' D\#. This "wrong" note persists while the other strings continue to descend in the usual mode, ending together on $C \#$. The forced Phrygian cadence again utilizes Ib to establish the new key of $\mathrm{D} b$. As can be observed in the modal analysis above, $\mathrm{D} b$ major, the key of Repetendum II, has been hinted throughout Episode I, especially via the pitch content used in the first half. $\mathrm{D} b$ major is also the relative major of $\mathrm{S} 1, \mathrm{Bb}$ minor, whose modulatory nature is once again informed by the common practice tonality.

The storm has passed, allowing space for a sweet and pastoral sound to take over, like the beams of sunlight through distant clouds. The tumultuous Phrygian cadence on $\mathrm{C} \#$ eases the
entrance of the $\mathrm{D} b-\mathrm{A} b$ drone by the contrabassoon and horns II and IV. Two measures later, the clarinets enter on the third of the $\mathrm{D} b$ major triad, thereby, for the first time of the piece, completing a full triadic drone. Yet, the melody is not ready to fully acquiesce to the new harmonic sphere. The violas and celli reintroduce the Motif I trichord, which was first introduced by the horns at the end of S2. The extended Gb mildly clashes with the clarinets' F but does not form any cacophonous sound because the continuous drone seems to exist in a different space without interfering much with the melody. The muted horns and trombones punctuate $\mathrm{D} b 7$ sus 4 whose pitch content comes from Cb major scale, agreeing with the melody that they are not yet ready for a full-blown $\mathrm{D} b$ major. The second violins further obscure the harmony with an A3-B3 trill, perhaps echoing pitches from the previous sections.

The Motif I trichord returns, this time followed by the trumpets playing a B major triad over the $\mathrm{D} b$ major drone. This bichord, which is based on the two scales explored extensively in Episode I, reconciles the two opposing sound worlds simply by superimposing them. This resolution by synthesis lasts only momentarily as the wave of strings washes any harmonic ambiguity away with a clear $\mathrm{D} b$ major sonority. The simultaneity of the 4-3 appoggiatura present in the clarinet and the strings, however, turns into an important theme later in the piece. As if unable to-or rather refusing to-resolve a note traditionally regarded as dissonant and unstable, Theofanidis resorts to presenting both notes at the same time. One may call it the true emancipation of dissonance in the context of straightforward tonality, or perhaps the sequence of events through time (horizontality) frozen in a moment (verticality). Whatever the interpretation, it bears significance due to its eccentricity in the midst of familiar context.

## REPETENDUM II

Repetendum II attempts little deviation from the first statement of the chant in Repetendum I except for its strikingly low range. The bass drone more than two octaves below the cello drone in Repetendum I adds richness to the sonority, particularly due to its register in C extension. While preserving the peacefulness of the first repetendum, this section uniquely serves as the timbral nadir of the composition. The melodic augmentation in the beginning also further broadens the sound. The octave portamento jump adds a slight dramatic flair, which is then mitigated by the serene nature of the chant. Just like in the first statement in Repetendum I, only the haloing strings are present and the other instruments remain tacit. As argued at the end of the discussion of Repetendum I, the absence of development is more than deliberate. On the surface, the section provides a harmonic resting place after a busy section, a brief catharsis for the restless conflict. However, the apparent peace that conceals the unresolved conflict is inevitably ephemeral.

## EPISODE II

After but one iteration of the chant, the brass disrupt the peace with a descending pentachord in A Lydian. The A final from the introduction and the pitches that come from Repetendum I clearly signify the ongoing disagreement of the principal key. Incidentally, this is the only moment with a true brass halo. The descending pentachord abruptly transforms into the wedge motif in A Aeolian, leading to a 4-3 appoggiatura in the cello.


Fig. 3.6 A series of iridescent harmonic progressions via parsimonious voice leading (PVL), mm. 251-266

As the ominous brass pentachords begin to wane, another cacophonous blast surprises the listeners-a chord similar to the one that opened Episode I at measure 106. The winds create a D Lydian cluster from D to A, but the "wrong" note F, played by the bassoon, harp, piano, and violas, creates a clashing harmonic conflict between D minor and D Lydian. The eerie tremolo strings take over with the first inversion of D minor triad, continuously changing harmony via Debussy-esque ${ }^{27}$ parsimonious voice leading, whose offsetting motions of each of the three voices create as byproducts a series of iridescent triadic harmonies. The stepwise ascent, distantly related to Motif Ib , causes this part to act as a mirror image of the descending string tremolo at the end of Episode I (mm. 198-204) and, in effect, declares the return of the unfinished conflict after the momentary truce.

The dainty progression arrives at a fleeting $\mathrm{A} b$ major, which then collapses into the first violins' Ab4. Another cluster chord with "wrong" notes ensues, this time involving a whole tone cluster of pitches between E and $A \sharp$. The use of the whole tone scale as a transitional device is

[^18]another salute to Debussy, who took advantage of the tonal ambiguity of the whole tone scale to open doors for modulatory explorations. However, Theofanidis distorts the whole tone scale with the alarming muted trumpets blowing the three interstitial pitches $(A, G$, and $F)$ that complete the chromatic cluster between the tritone, E and $\mathrm{A} \sharp$, thereby creating the most dissonant sound in the entire piece. This alarming cluster lasts for four measures and then leads to the S 1 variation in A Dorian, again returning to the original tonal center from the introduction. The bass motion from E to A is the only V-I cadential bass motion in the entire piece, ironically so because the E-based harmony whole tone/chromatic cluster signifies the dramatic pitch departure from the traditional diatonic tonality. Again, the composer experiments with unresolved conflicts by superimposing and synthesizing two disparate musical elements.

S1' nearly exactly repeats S 1 in the new mode. The flutes double the first violin melody, and the eighth-note steady pulse of the second violins and violas from S1 turns into an eighthtriplet, adding a more dance-like quality. Although the mode begins in A Dorian, during the consequent phrase, the melody reaches the leading tone, $\mathrm{G} \#$, temporarily visiting melodic minor mode that only appears here in the entire piece. The woodwind drone and the lower string pizzicato have been completely eliminated. S2' behaves similarly to the first of the three phrases of S2. The bass, as expected, descends to VI to form D Lydian. The melody, now simply a descending pentachord without the Ib extension, is again joined by the flutes. The outer first violins embellish the melody with a constant flurry of triplet of upper neighbor figures, finally exploring Motif II extensively.

The following ten bars feature an extensive development of the wedge motif in A Dorian, signifying an imminent substantial transition. S5, the longest subsection of the two episodes,
lasting 43 measures, paves the way for the triumphant recapitulation of the piece. This section seems to make a reference to "standing on the dominant" from the common practice era, especially toward the end of the development section in a typical sonata-allegro form, although the dominant relationship is no long applicable here. The incessant $\mathrm{C} \#$ pedal tone in the lowest instruments of all three families creates the imagery of a procession. The mode of $\mathrm{C} \#$ Phrygian manifests the last indirect connection to A major, the original key. The muted first trumpet presents a new theme based on Motives II and IVa, which inherently contains Ib, immediately followed by the second trumpet playing a variation of the Motif I trichord. The second iteration of the theme contains an extension with a series of second intervals, ending with a m 2 between E 4 and $\mathrm{D} \sharp 4$, the latter of which is outside the prevailing mode. The third iteration ends by a


Fig. 3.7 The second iteration of S5 trumpets theme and step clusters, mm. 309-313
rhythmically augmented IIIa with haloing, foreshadowing its extensive appearance in Repetendum III. The descending tetrachord, again, contains a $D \sharp$, suggesting E major, perhaps as a flashback to the key of Repetendum I. In fact, many motives used in this section appear in their original pitches in E major. For example, IV in the first iteration of S5 and the first three pitches of IIIa in the tail end of the 3rd iteration of S5 (mm. 315-320) both appear in their original keys.

The mode then briefly shifts to major as the violas and celli play the ascending tetrachord of $\mathrm{D} \#$ major in a wave-like alternating fashion: the wave motif (figure 3.9). This figure also foreshadows Repetendum III and quickly disappears. The next part contains a Ravelian
harmony-melody based on the Motif I trichord. Such block harmonies do not appear anywhere else in the piece. By this time, $D \sharp$ is clearly established, hinting at the scalar shift from A major to E major that occurred early on in the piece. As before, this figure lasts briefly and soon fades with a repeating Motif IIIb with a Motif II embellishment on each note. The mode shifts to C $\#$ Mixolydian b6. Again, Theofanidis, carefully oversees the gradual morphing of modes. The $C \sharp$ Phrygian that begins S 5 turns into $\mathrm{C} \#$ Aeolian as D steps up to $\mathrm{D} \#$. Then, E switches to $\mathrm{E} \#$ at the end, switching the mode to Mixolydian flat 6.


Fig. 3.8 Ravelian harmony, mm. 326-334

A quiet introduction similar to T 1 precedes Repetendum III, though it is still included in Episode II in the arc diagram due to the lack of a clear statement of the chant. The first and second clarinets drone on an A3-C\#4 dyad, whose interval of M3 also appears only in T1.


Fig. 3.9 Wave motif, dynamics and articulations omitted for clearer presentation

Instead of the Motif I trichord-as seen in Repetendum II-the wave motif first introduced in S5 appears in the celli in A major. This time, the motif ends with a 4-3 appoggiatura, thus combining IIIb with Ib . The lengthy D on the celli clashes with the $\mathrm{C} \sharp$ drone, as has been
observed in T1. Immediately after the second repeat of the motif, the basses enter with the same motif, but start on E3, as if providing an answer in the dominant. As if to further corroborate the dominant nature, the celli leaps back down to E instead of stepping down to $\mathrm{G} \#$.

After the I-V harmonic progression has been established, the drone discontinues and the wave motif becomes more active and simplifies to IIIb by dropping the last note, similar to the motivic simplification observed in S2. The harmonic rhythm speeds up, this time occurring every other measure, then every measure. Then the celli and basses enter together, as bassoons I and II double them in an alternating fashion. The absence of appoggiatura and leaps renders the harmonic motion ambiguous between A major and D major, the two principal keys in the Introduction. Horns I and III begin to repeat the Motif I trichord in A major. This time, however, the second and fourth horns counter by forcing $\mathrm{C} \#$ against the D in the main motif, creating a m2 clash. As discussed previously, this clash results from superimposing the "non-harmonic" tone of the appoggiatura and the tone of resolution, a causal sequence frozen into a moment. The melody, along with the A-E drone in the trombones, seems to confirm the key of A major, as if returning home. Yet, the melody constantly gravitates towards D. The muted trumpets enter with Motives II-IIIa', ending each time on a D.

Remarkably, the mode suddenly shifts to G major (now with the melodic emphasis on C). This new key is somewhat perplexing. Never has the key of G-or even C-been explored throughout the piece, and the expected key of E major, the sweet mode that introduces the listeners for the first time to the chant, never returns. The key of D, which has constantly resisted the dominating A major in an effort to become established in the introduction and T1, may have been surreptitiously acting as the dominant of this triumphant finale all along. Perhaps the key of
$\mathrm{D} b$ (or $\mathrm{C} \sharp$ ), which prevailed throughout the middle three sections, has been serving as the harmonic far-off point from this final key, as it is a tritone away from G. Perhaps the composer has thus far deliberately eschewed establishing any key center closely related to $G(D$ and $C)$ in order to assure its novelty and freshness when it finally arrives. In fact, C is never even promoted to a local final, ${ }^{28}$ whereas D often struggles but fails. Whatever the case, this last sudden modulation effectively catches the listeners off guard.

Furthermore, the nature of modulation also stands apart from that of all the others. Thus far, the composer has invariably prepared all the important key changes and modal shifts meticulously either through melodic motion (particularly through the Phrygian cadence), formal demarcation through the wedge motif or other noticeable orchestration techniques, or gradual modal morphing. However, the shift to the final key is neither conspicuous nor gradual. It also happens subtly two bars shy of the end of T 1 . The constant cadential wave in the low strings and bassoons transforms to plagal cadential progression in G major while horns II and IV ring the "correct" pitch of P4 above the final (C4). Granted, the slight change of instrumentation (upper two bassoons to contrabassoon and celli to piano), dynamics (forte to fortissimo), and technique (trills on the lower horns) certainly signifies newness. However, the intensity of such modulatory behavior is strikingly anti-dramatic in comparison to the rest, especially considering its significance.

[^19]

FIG. 3.10 T2' motif (mm. 280-282) is wedge motif broken into two

T2' continues the lengthy intensification of the wave of energy, now in the new key. The upper woodwinds and the strings halo Motif IIIb in triplet half notes, an augmentation of the still present wave motives in the third bassoon and the basses. The upper bassoons, violas, and celli offset the ascending tetrachord by haloing a descending trichord ( $\mathrm{F} \#, \mathrm{E}$, and D ) when the ascent arrives at C. Counting the G held from the ascent, we have a complete descending tetrachord, as indicated in figure 3.10. Together they complete the G major scale diatonic cluster. The ascending meta-melody is again at play, now explored fully instead of being embedded. In the fourth measure, the melody rises higher to D5. Afterwards, the melody begins its climb from E5 up to A5, and then to B5. The third time around, the melody begins an octave higher than the first phrase (G5), climbing up to C6 and then to D6, finally arriving at E6 before the triumphant return of the chant melody at D6. During the third phrase, the horns stratify their own broken version of the wedge motif, starting with a descending pentachord and responding with an ascending tetrachord. The horns' broken wedge motif is in regular half notes, even slower than its counterpart. As a result, there are three different temporalities that transpire simultaneously: triplet-eighth notes, triplet-half notes, and half notes. When the main melody reaches the apex, the trumpets, for the last time, exclaim the Motif I trichord, announcing its final resolution.

## REPETENDUM III

This final repetendum stands apart from the other two in many aspects. The massive tutti orchestra in fortissimo creates an unequivocal festivity, and the unison melody no longer relies on a haloing texture, except for the first descending tetrachord (mm. 412-414). However, the ceaseless bass drum trill starts building tension yet again, a reminder of an unfinished task. This ultimate repetendum provides a resolution to the chant itself. As discussed earlier with the Phrygian cadences, the original chant melody, as interpreted by the composer, lacks a clear conclusive gesture because the penultimate note steps down to the final on a weak beat. Hence, the melody either leaps back up to repeat the chant entirely, or steps down again to teleport into a remote mode. The chant has never concluded satisfyingly in a traditional sense in the previous two repetenda.

From measure 430, the chant gets to Motif V, which outlines the tonic triad to confirm the key and grants an extra resolution to the initial 4-3 appoggiatura. Likely due to its mundane nature and relative insignificance, this motif is rarely developed in the episodes. Yet, in this moment, it accelerates and repeats, as if rotating a sling to hurl an object. The melody, now charged with this rotational energy, leaps up to $\mathrm{F} \#$, the leading tone, as the harmony moves to C major with the added $\# 4 . \mathrm{C}$ is a tonal center that the composer deliberately avoids throughout the piece, in order to prepare for this harmonic and melodic double resolution.

This C-based harmony remains transitory and unstable due to its inclusion of the leading tone of G Major (F\#). The chord immediately returns to G-hence, a plagal cadence-as the melody continues to emphasize the pitch C through the Motif IIIa' descending pentachord.

Unable to resolve the ongoing conflict between G sonority and C sonority, Theofanidis simply superimposes the two in the triumphant ultimate chord.

## CHAPTER 4

## CONCLUSION

We have observed a large-scale transformation of the chant as it travels through two different and seemingly conflicting sound worlds. The first is the serene, meditative, and harmonically stable-or immobile-Repetenda I and II with their introductory subsections. We can say that these represent Hildegard's music, Medieval Christianity, and the traditional western European and American culture that Theofanidis inherits. The second is the harmonically and timbrally unstable episodes, which, we can say, signify Tibetan Buddhism. The manifold musical nature of the episodes also appears to be connected to the pluralistic philosophy. The struggle between two conflicting musical ideas underlies the majority of symphonies, concerti, and sonatas of the past. In this piece, however, the two ideas simply present contrasting musical sounds without interacting with each other, except that the new motives are derived from the chant melody. We do not have any underlying harmonic language such as common practice tonality to demonstrate the interaction between the two; they simply coexist until the ultimate repetendum emerges.

One may argue that the interaction indeed occurs especially in Repetendum III, which symbolizes the composer's subjectivity in dealing with the two ideas. As stated in Chapter 1, postmodernist subjectivity allows one to liberally choose and combine seemingly disparate elements, due to the absence of intrinsic meanings. Theofanidis synthesizes the musical nature of the repetenda and the episodes via timbral mixture; the triumphant dynamics and timbre and the Motif I trichord first introduced at the end of S2", becomes transferred to the chant. Although S2" originates from the chant, it in turn influences the chant and becomes a lens that provides a
unique view towards the chant-just as although Theofanidis first would have understood Tibetan Buddhism through the cultural lens developed during his western upbringing, he then used this exotic idea to shed new lights on his own cultural heritage. So we may say that the two ideas, acting independently until now, finally converge. To confirm this convergence, Theofanidis "resolves" the chant melody by having Motif V leap up to the leading tone to prepare for the final fanfare of tutti G major triad, satisfying the audience.

The most interesting aspect of Repetendum III, however, hides behind this festive transformation. As mentioned in the previous chapter, the unresolved tonal ambiguity still lingers as the melody constantly gravitates towards the fourth, C. After the Motif V variation jumps up to the leading tone as the bass moves to C for the first time, the harmony finally resolves to G major again with Motif IIIa' continuously moving towards C. To a traditional ear, this may sound as a plagal gesture that would require C to resolve down to B , the third. Instead, Theofanidis ends with both C and B present! By superimposing the "non-harmonic" tone and the tone of resolution in this tonal context, Theofanidis makes a cultural statement that we no longer need to resolve them despite the palpable difference and the resulting discomfort; the two can simply coexist.

Of course, composers in the past century have been writing dissonant harmonies without having to resolve dissonances. Yet, they liberated themselves from the contrapuntal context that requires a resolution in the first place. Schoenberg's harmonic revolution was an inevitable culmination of the gradual evolution of dissonance. However, the dissolution of traditional tonality neutralized intervals instead of freeing the perception of dissonance because the listeners need some sort of a tonal context to desire resolution. Theofanidis reintroduces the old
contrapuntal rules to liberate dissonance in its original sense. In Rainbow Body, the melody begins by resolving the dissonant fourth; thus, the audience understands the contrapuntal context the piece operates in and expects for the fourth to resolve down to the third. In fact, Theofanidis begins with this idea in the introduction, in which the solo cello plays the entire Motif I with particular emphasis on Ib . Ib is also echoed in other instruments. However, the Motif I trichord, the unresolved one, slowly emerges and comes to prominence to provide an alternative narrative. In its first appearance at the end of S2", it sounds consonant because it has been transposed so that it ends on the final. In the second appearance at T1, it appears in the original tonic form in the new key of $\mathrm{D} b$. Yet, its dissonant effect is mitigated by the soft dynamics and sparing orchestration. When it appears at the end of T2, it becomes more notably dissonant due to the deliberate temporal displacement as discussed in Chapter 2. Finally, in the ultimate chord, all four horns blast the trichord for the last time, proudly ending on the fourth without resolving. By carefully introducing the rule of non-harmonic tones, and gradually breaking it through superimposition of the "non-harmonic" tone and the tone of resolution, Theofanidis liberates the tones from their original meanings.

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## Inner Voices for Orchestra

## Instrumentation

2 Flutes
1 Piccolo
3 Clarinets
2 Oboes
1 English Horn
2 Bassoons
1 Contrabassoon

4 Horns
3 Trumpets
3 Trombones
1 Tuba

3 Percussions
I: Timpani and Triangle
II: 4 Cymbals (Chinese cymbal, Sizzle Cymbal of any size, 17" and 19"Suspended Cymbals or of comparable sizes) and Snare Drum
*The four cymbals and the snare drum are indicated in different lines for clearer distinction:


III: Bass Drum, 3 Gongs, Tam-tam, Tenor Drum, and Vibraphone
Harp
Piano
Strings


Inner Voices






























Inner Voices


Inner Voices










[^0]:    ${ }^{1}$ Translation by Nathaniel Campbell, http://nathaniel-campbell.blogspot.com/2013/12/ave-maria-o-auctrix-vite-hildegard-of-bingen-symphonia-8.html. (The words in the repetenda have been reordered by the author.)
    ${ }^{2}$ Reginald A. Ray, Secret of the Vajra World: The Tantric Buddhism of Tibet (Boston, MA: Shambhala, 2002), 323.

[^1]:    ${ }^{3}$ Chögyal Namkhai Norbu, The Crystal and The Way of Light: Sutra, Tantra and Dzogchen (Boston, MA: Snow Lion, 1999), 158-161.
    ${ }^{4}$ Christopher Theofanidis, Program Notes, http://www.theofanidismusic.com/programnotes_Rainbow_Body.html.
    ${ }^{5}$ Hinduism, for instance, views and embraces Jesus Christ as one of the many avatars, or the incarnation, of gods, while rejecting the exclusivity of Christ's divinity.

[^2]:    ${ }^{6}$ Timothy Leary, Ralph Metzner, Richard Alpert, and Karma-Glin-Pa, The Psychedelic Experience: A Manual Based on the Tibetan Book of the Dead (New York, NY: Kensington), 140.
    ${ }^{7}$ The New Grove Dictionary of Music and Musicians, 2nd ed., s.v. "Hildegard of Bingen."

[^3]:    ${ }^{8}$ Jennifer Bain, Hildegard of Bingen and Musical Reception: the Modern Revival of a Medieval Composer (Cambridge, UK: Cambridge University Press, expected 2015), 103-128.
    ${ }^{9}$ Christopher Page, "Machaut 'Pupil' Deschamps on the Performance of Music: Voices or Instruments in the 14thCentury Chanson," Early Music 5, no. 4 (1977): 484-491.

[^4]:    ${ }^{10}$ Daniel Leech-Wilkinson, The Modern Invention of Medieval Music: Scholarship, Ideology, Performance (Cambridge, UK: Cambridge University Press 2002), 115.
    ${ }^{11}$ Hildegard von Bingen Project, http://www.sequentia.org/projects/hildegard.html.

[^5]:    ${ }^{12}$ Ian D. Bent and Marianne Pfau, The New Grove Dictionary of Music and Musicians, 2nd ed., s.v. "Hildegard of Bingen."
    ${ }^{13}$ Christopher Theofanidis, Program Notes, http://www.theofanidismusic.com/programnotes_Rainbow_Body.html.

[^6]:    ${ }^{14}$ William E. Caplin, Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven (New York, NY: Oxford University Press, 2000), 77.

[^7]:    ${ }^{15}$ I did not use E to avoid confusion with the pitch E.

[^8]:    ${ }^{16}$ Hildegard's original chant was written using church mode seven, or Tetrardus Authenticus. This mode is now more commonly known as Mixolydian, a name attributed to the mode centuries later by Renaissance theorists. Since the original manuscript bears no further structural markings other than the notes and words, ensembles often have to make artistic choices. Sequentia, for example, used the seventh scale degree in a unconventional fashion. They used a leading tone in the upper octave when the melody descended down to 6 , and a subtonic (lowered seventh) below the final when the melody stepped up to the final. However, Theofanidis reinterprets the melody in a major mode by eliminating the seventh below the final altogether in the repetenda.

[^9]:    ${ }^{17}$ The word, "drone" is used liberally. In the list, the pitches in parentheses refer to notes not included in the sustaining drone per se, but nevertheless featured prominently in order to come across as a sustained note.

[^10]:    ${ }^{18}$ Triple meter has been of an uttermost interest to many pious composers due to its association with the Holy Trinity.

[^11]:    ${ }^{19}$ Andrew Druckenbrod, "Concert Preview: Theofanidis' 'Rainbow Body' is a hit with orchestras," Post-Gazette. http://www.post-gazette.com/ae/music/2007/02/15/Concert-Preview-Theofanidis-Rainbow-Body-is-a-hit-withorchestras/stories/200702150320.

[^12]:    ${ }^{20}$ Christopher Theofanidis, Program Notes, http://www.theofanidismusic.com/programnotes_Rainbow_Body.html.
    ${ }^{21}$ Robert Spano, interview by Jeffrey Freymann-Weyr, Morning Edition of NPR News, NPR, July 8, 2003.

[^13]:    ${ }^{22}$ Einstein's special relativity rocked the foundation of our understanding of time. Time is not constant, but dependent upon the velocity of an object, and at the speed of light, the cosmic speed limit, time ceases to flow. This discovery (nearly 100 years before the composition), reconfigured the way we sentient beings conceive of time and

[^14]:    had a profound effect on the temporal elasticity of art and music throughout the 20th and 21st centuries. Granted, the connection is allegorical here at best.
    ${ }^{23}$ There are a few places, such as the first part of S4 (reh. M, mm.170-197) and S5 (301-343), in which the dissonant half step is an integral part of the intervallic contents and thus excluded from the list of "wrong" notes. This, however, leads to two possible interpretations. First, these are unrelated to the "wrong" note motif. Second, these are related to "wrong" note motif through Ib. I gravitate towards the latter and will further explore it.

[^15]:    ${ }^{24}$ The choice of solo cello is quite appropriate, as the four principal pitches that frame the piece neatly correspond to the four open strings of the instrument.

[^16]:    ${ }^{25}$ Christopher Theofanidis, Program Notes, http://www.theofanidismusic.com/programnotes_Rainbow_Body.html.

[^17]:    ${ }^{26}$ This occurs, of course, without any harmonic progression.

[^18]:    ${ }^{27}$ Although parsimonious voice leading is more often attributed to other composers such as Wagner, Debussy, who was under Wagner's shadow, utilized it distinctly. His use of PVL was more directional, as each voice tended to move in the same direction. The best examples can be found in the first movement of his String Quartet in G minor, Op. 10 (1893).

[^19]:    ${ }^{28}$ The pitch C never even forms the basis of a single harmony until the very end of the piece, which makes its arrival quite satisfying. It is the only pitch missing from the list of drones. F , the subdominant of C , forms the basis of a sonority only once in Episode I (F Phrygian in S3, mm. 129-140) for a significant amount of time.

