

Brian Cherney's *Illuminations*

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Article abstract

Brian Cherney's *Illuminations* for string orchestra, composed in 1987, reflects ideas related to Jewish mysticism. Descriptions and accounts of meditation techniques that ultimately lead to visions of light, and even an encounter with the divine, so inspired the composer that he decided to write a piece that re-enacts a meditative cycle. *Illuminations* is thus a dramatic staging: the listener, as if granted special insight into the mind of someone who is meditating, witnesses how the mind is transformed as it approaches light (or the divine). The composition expresses light and the divine in multiple ways, from the layout of the instruments on stage, to the formal plan of the piece, to the variety of pitch collections heard throughout the work. This article unveils some of the subtle intricacies that make *Illuminations* so powerfully evocative, and why it remains one of Cherney's signal achievements.

BRIAN CHERNEY'S *ILLUMINATIONS*

David Adamcyk

INTRODUCTION

A cycle of four compositions relating to Jewish mysticism dominates much of Brian Cherney's music from the 1980s, including *Beyond the Seventh Palace* (1982), *Gan Eden* (1983), *Illuminations* (1987), and *Shekhinah* (1988). Of these, *Illuminations* stands out in Cherney's creative output. "It's one of the three or four pieces I'm most proud of," he said during a phone interview in June 2018. "It was unique in that everything just clicked as I was composing. All my ideas seemed to simply fall into place." The 1980s were a particularly fertile time for the composer, as he created more than seventeen compositions in addition to these four works, including *Into the Distant Stillness* (1984, recommended by the International Rostrum of Composers) and *River of Fire* (1985, winner of the Jules Léger Prize for New Chamber Music).

Scored for eight violins, three violas, two cellos, and a double bass, *Illuminations* offers listeners a musical interpretation of a meditation cycle giving rise to an "illumination," i.e. an intense spiritual experience, perhaps even some sort of encounter with the divine. In many ways, the entire work can be seen as a dramatization of a transformative episode. It is as if the audience were witnessing the changes in someone's mind as the person ascends towards the divine.

The poetic influences behind *Illuminations* come primarily from texts on Jewish mysticism that were of particular interest to the composer at the time, including Edward Hoffman's *The Way of Splendor* (1981), and *The Secret Garden* by David Meltzer (1976). Quotations from these books, as well as from numerous other unmarked sources, abound in Cherney's work notes and pertain mostly to concepts about and accounts of mystical meditation techniques. However, the meditative process musically portrayed in *Illuminations* was not taken from a single literary source; rather, it is a composite interpretation made from many sources. *Illuminations* represents Cherney's personal artistic take on mystical meditation and should not be regarded as a specific translation or account.¹ Curiously, the introductory remarks in the score allude only vaguely to the meditative aspect of the piece, with the last paragraph of the program note simply stating, "*Illuminations* can also be thought of as the special insight

¹ Though it would be interesting to compare Cherney's work with various established views on Kabbalistic meditation, such comparisons are beyond the scope of this article.

one is said to gain in the practice of certain kinds of mysticism. Such insights are not gained, however, without consequence” (Cherney 2007, 2).

This article explores Cherney’s musical interpretation of Jewish mystical meditation and explores the hidden meanings deeply imbedded within *Illuminations*. It is based on close analysis of the score, along with a study of Cherney’s personal notes and sketches that he generously shared with me. Though Cherney, true to his style, designed each musical parameter in the piece with great consideration, he articulates the meditative process mainly via three musical aspects, which I discuss further below: the overall form of the piece, the choice of pitch-class collections and vertical sonorities, and the use of contrasting melodic materials.

FORM

A short paragraph in the opening pages of the score reveals that the form of *Illuminations* “consists of seven sections, played without a break, with the exception of Section IV, which is preceded and followed by a brief pause” (Cherney 2007, 3). No further indication in the score delineates these sections, except perhaps for certain double bar lines. Fortunately, the composer’s work notes offer a structural plan of the entire piece that defines each of the seven sections as a stage of a meditative process: I: Prologue, II: Preparation, III: Ascent, IV: Ecstatic Vision, V: Collapse, VI: Lamentation, and VII: Epilogue. Clearly these titles express a “voyage,” with an unmistakable narrative arc and a strong suggestion of register motion (especially with the words *ascent* and *fall*).

The dramatic nature of the work, now revealed with these section titles, helps shed light on the meaning of the arrangement of the musicians on stage, which is specified in the score (Cherney 2007, 3). The first group, made up of six violins, one viola, and one cello, sits to the left of the conductor (henceforth called Group 1). It represents light—a metaphor for God and the heavens. The second group performs to the right of the conductor and includes two violins, two violas, one cello, and a double bass (henceforth called Group 2). These lower string instruments symbolize darkness and the realm of humans.

Figure 1 displays a sonogram analysis of the whole composition and attempts to capture the close connection between form and register that is evident in the work.² The sonogram reveals that each section delineates its own registral space (similar to the registral control that Ligeti exerts in pieces such as *Atmosphères*), while in addition, it shows that sections are symmetrically related: section I is in a similar registral space to section VII; section II is in a high register, while section VI provides contrast by being in the low register;

² Here I am using the term *sonogram* as per IRCAM’s terminology for a graph that represents the amplitude, frequency, and time aspects of sound, as used in the audio-processing software AudioSculpt. In such a sonogram, the *y* axis represents frequency, while the *x* axis represents time. Amplitude (i.e., “volume”) is denoted by shades of grey (essentially, *darker* means “louder” and *lighter* means “quieter”). To help equate frequencies to pitches, a reference musical staff overlies the sonogram (see faint grey treble and bass clefs on the bottom left of the sonogram and the staff lines that run across its entirety).

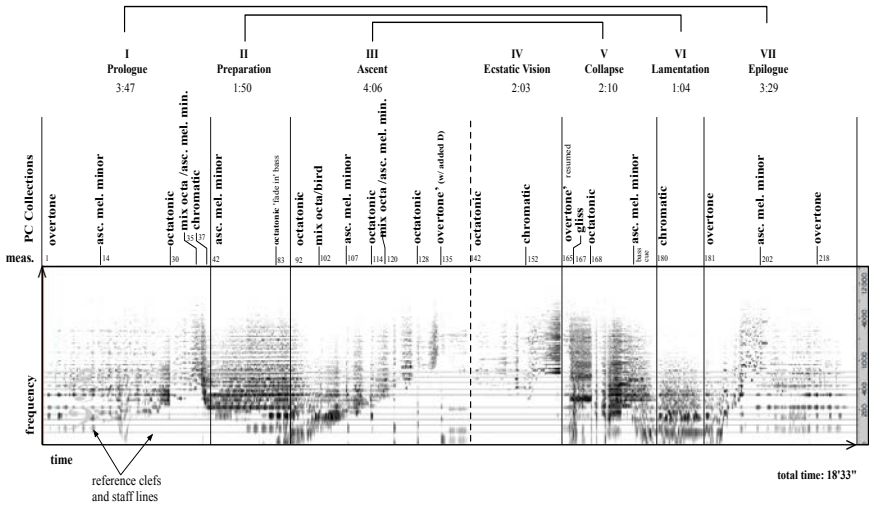


Figure 1. Sonogram analysis, form, and pitch-class collections of *Illuminations*

section III ascends, while section V descends; and section IV stands alone at the peak of the form.

While the sonogram clearly shows the climax of the piece in section IV (the “Ecstatic Vision”), at the very top of the overall register, it fails to uncover a clever feature relating to its placement in time. The “Ecstatic Vision” metaphorically portrays a suspended moment, as if contact with the divine were outside of ordinary time. To achieve this, Cherney places the “Ecstatic Vision” at the precise moment of the golden section, but *not* calculated in relation to the length of the entire piece. Rather, he calculates the golden section of the piece *minus* the “Ecstatic Vision” (figure 2). In other words, the timeless nature of the divine encounter is expressed, from a structural point of view, by residing outside of the time scale of the rest of the piece. The “otherworldliness” of this section is further highlighted by the clean interruption of the music that precedes it (bar 141), which then resumes immediately after the “Ecstatic Vision” finishes (bar 165), as if nothing had happened. This further emphasizes the perception of this section as an insertion or extension of a spiritual moment in relation to natural “human” time. The implementation of this “suspended time” idea is more suggestive than rigorous. The plan shown in figure 2 is from an early sketch of the piece, found in the composer’s notes, which showed a projected

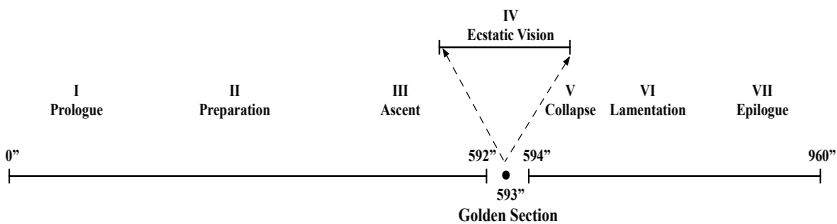


Figure 2. Placement of section IV, the “Ecstatic Vision,” in relation to Golden Number

duration of sixteen minutes (960 seconds, without counting the duration of the “Ecstatic Vision”). In the final score, however, the tempos are not strictly prescribed, and two unmeasured, essentially non-conducted passages exist, creating possible fluctuations in the actual length of the piece. As a result, the exact arrival time of the “Ecstatic Vision” is unlikely to occur at the exact moment of the true Golden Number from performance to performance.³

A final noteworthy formal feature lies in the similarity of the beginning and very end of the piece. Cherney articulates the repetitive nature of the meditation process through a circular form (i.e., a form that begins and ends in the same way, implying that the music could go on forever). Bars 218 to the end are a near-exact repetition of bars 1 to 6 from the beginning (bars 221–2 and bars 5–6 are in fact *exact* repetitions). Upon listening to the piece, the sense of arrival felt in the final bars of the piece is indeed temporary, as one recognizes the return of the introductory music as an invitation to go through the meditative process once again.

PITCH-CLASS COLLECTIONS AND VERTICAL SONORITIES

Large portions of the music in *Illuminations* present intricately composed lines that Cherney layers to create complex mass textures. Harmonically it therefore seems more appropriate to understand the piece as a succession of overall pitch-class collections, rather than as a progression of distinct chords (figure 1). Cherney’s sketches seem to reflect this approach, as there are no obvious, recurring chord progressions, while references to pitch-class collections appear more regularly, though with no systematic plan.

My own pitch-class analysis of the piece reveals the use of three main pitch-class collections. I label these (1) overtone, (2) ascending melodic minor,⁴ and (3) octatonic (figure 3a). The overtone collection is based on the top portion of a vertical sonority, which Cherney names the “H-chord,”⁵ based on a low A harmonic spectrum (figure 3b; this sonority is discussed further below). The ascending melodic minor and octatonic collections closely relate to the overtone collection by sharing a common hexachord (C#, D#, E, F#, G, A; figure 3a).⁶ As a result, *Illuminations* presents great harmonic homogeneity since most of the piece uses the overtone, ascending melodic minor, or octatonic collections (figure 1), and consequently pitch-classes of the common hexachord are almost always present. This “sameness” of sound is quite visible in the sonogram

³ Remarkably, in the recording by I Musici de Montréal (Cherney 1993) used for the sonogram analysis of figure 1, the duration of the piece minus the “Ecstatic Vision” is close to the intended 16’ at 16’25”, and the “Ecstatic Vision” arrives at 9’41”, which is slightly before the calculated Golden Number time of 10’09”.

⁴ In the composer’s sketches, this collection is actually named the “birdcall” collection. However, here, to avoid confusion with the “birdsong” melodic category described later in the text, I have chosen to refer to it by its more familiar name of “ascending melodic minor.”

⁵ The name of this chord comes from the composer’s sketches. The *H* stands for *harmonic*.

⁶ As a result, the defining features between the three collections are the presence or absence of only four pitch-classes: G#, B[♭], B[♮], and C[♯]. In other words, the presence of a G# denotes the overtone collection, C[♯] points to the octatonic collection, and a B[♭] with no G# signals the presence of the ascending melodic minor collection.

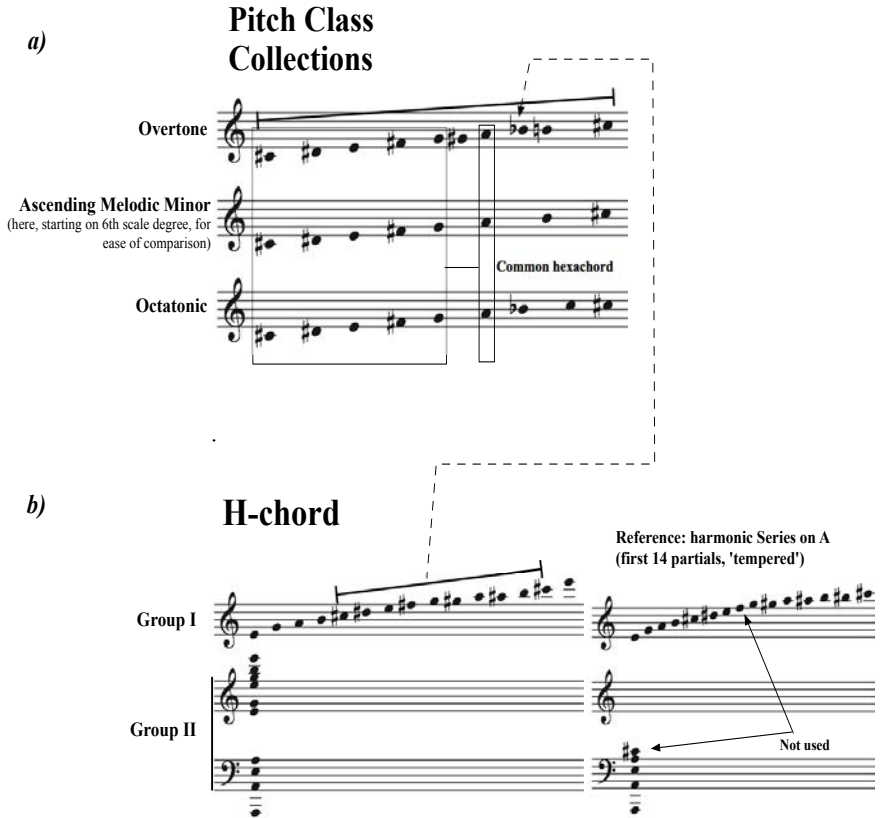


Figure 3: a. Three main pitch-class collections used in *Illuminations*
 b. H-chord with comparison to the harmonic series on A

analysis (figure 1), as a concentration of energy at certain frequencies can be observed for almost the entirety of the work, giving the sonogram a very linear appearance.

Though Cherney’s aesthetic concerns are far removed from those of spectral composers, his use of the harmonic series as a model for both the H-chord and overtone collection echoes the parallels made by French spectralists between light and sound.⁷ Spectralists claim that much like mixing amounts of red, blue, or green light produces completely new colours (i.e., we see purple, not blue and red at the same time), so do the components of overtone chords (i.e., pitches) “fuse” together as one “sound colour” (i.e., we hear a single sound, not the individual tones). Interestingly, Cherney uses his H-chord as a timbral sonority *and* as a reservoir for individual pitches. In other words, he is interested in both the fused quality of the sound and its constituent components.

⁷ For a complete discussion on the relationship between light and spectral music, see Malherbe (2000).

Cherney's H-chord makes regular appearances throughout the composition but plays an especially important role in the opening and closing sections of the work. As the music begins, the low instrumental group (Group 2) sustains all the "white" notes of the overtone collection (E, G, A, B), spaced as they would appear in the harmonic series. This group also plays *sul tasto* with mutes, giving the sound a veiled, greyish quality. Conversely, Group 1, which features more treble instruments, plays a complex filigree texture comprising fast and effervescent figures inspired by birdcalls, using pitches from the entire overtone collection. The contrasting materials of both groups serve a specific goal in Cherney's conception of sound and light: the fast figures of Group 1 are meant to "illuminate, as if from behind" (as stated in the composer's sketches) the more muted sonority of Group 2. It took Cherney much effort to figure out how to realize this "back lit" effect; he stated that he "collapsed on the bed with a headache" after composing the first bars of the piece, exhausted by the concentration involved in realizing the passage, but relieved to see that the effect "would in fact work" (Cherney interview 2018).

Finally, another important sonority in the piece directly related to the idea of light is the total chromatic cluster heard at the climax of the piece in the "Ecstatic Vision" (bars 160–3). For Cherney, this cluster represents the light of the illumination, the sound of divine contact. By using all twelve chromatic pitches, he is essentially drawing from a common analogy between white noise and white light—white light simultaneously comprises all visible wavelengths, just as white noise is a composite of all frequencies.⁸ Of course, in the absence of electronic means, Cherney cannot create actual white noise, and consequently he approximates it with the use of the densest and most noise-like sonority playable in a tempered context: a total chromatic cluster (figure 4). When paired with the *fff* dynamic reached at the end of the section (bar 163), the "Ecstatic Vision" turns into a blinding and overwhelming sonic experience, perhaps reflecting the dramatic last sentence of Cherney's program note, which states, "Such insights are not gained, however, without consequences" (Cherney 2007, 2).



Figure 4. Chromatic cluster chord heard at the end of section IV, the "Ecstatic Vision" (bar 161)

⁸ For a complete discussion on white noise, see Dodge and Jerse (1997, 96–7).

MELODIC MATERIALS

The melodic materials of *Illuminations* can be grouped into three main categories: (1) mass-texture figurations, (2) birdsongs, and (3) quasi-folk melodies. The mass-texture figurations are the most straightforward, generally consisting of lines with alternating pitches played with fast, tremolo-like rhythms that, when heard all together, create dense, cluster-like textures. The figurations of all the parts in such textures stand on equal ground and share similar rhythms, dynamics, and articulations, in order to maximize their overall melding. Though mass-texture figurations are found throughout the score, they play an especially important part in the ascending music of section III (figure 5).

The second category, quasi-folk melodies, are most prominent towards the end of section II (especially bars 67–97 in Group 1), though short excerpts also emerge at various points in the score (such as in bar 23, violin 8; bar 122, violin 7; and bar 136, violin 1). They comprise pitches from the ascending melodic minor collection, which give them a distinctly tonal flavour, and they also present angular contours that, along with their simple rhythms and repetitive nature, recall the eastern European folk passages in the music of Stravinsky and Bartók (figure 6). Cherney in fact composes these melodies intuitively, giving them a “freehand,” improvisational style that further highlights their folk-like sound.

The last category, birdsongs, makes up a large part of the material played by Group 1 in the Prologue and Epilogue (especially bars 1–34 and bars 202 to the end). These passages feature Messiaen-esque birdsong figures, such as quick repeated pitches, trills, and many grace notes, but also mix in fast-rising and descending runs, tremolos, and glissandi, which give them a distinctly “Cherney” sound. Figure 7 displays an example of multiple birdsongs layered to create a polyphonic texture in Group 1. For the most part, birdsongs are freely invented rather than methodical transcriptions of particular birdcalls found in nature, and Cherney’s notes never mention specific species used as models.

One particular birdsong melody, heard prominently by itself in bar 202 in Violin 7 (figure 8), holds more influence than others. This eight-note figure stems from an actual birdcall that Cherney heard and notated while at his family’s summer home in Ontario, where he did much of his composing (for this reason, I call this birdsong the OB melody, for Ontario Bird). Its pitch content forms the basis of an important passage in the piece: the incantation lines of section II.⁹

In this section, entitled “Preparation,” Cherney reworks the pitches of the OB melody into repetitive patterns that roughly follow the principles of a meditative technique proposed by R. Abraham Abulafia, the thirteenth-century founder of the school of “Prophetic Kabbalah” (see Kaplan 1982, 87–92). The technique involves repeatedly reciting the four-letter scriptural name of the God of Judaism, usually translated from Hebrew into English as *YHWH*, also known as the Tetragrammaton.

⁹ The OB melody also serves as the basis for the transitional unison melody that connects section VI to section VII (see bars 181, Double Bass and Cello 2, to bar 196, Violins 1–3).

The image displays a page of a musical score for a string ensemble, specifically focusing on mass-texture figurations. The score is arranged in a vertical stack of staves, each labeled with an instrument: Vln. 1, Vln. 2, Vln. 3, Vln. 4, Vln. 5, Vln. 6, Viola 1, Cello 1, Vln. 7, Vln. 8, Viola 2, Viola 3, Cello 2, and Dble. Bass. The notation includes various musical symbols such as notes, rests, and dynamic markings. Key markings include 'sul pont.' (sul ponticello) and 'ord.' (ordine), which indicate specific playing techniques. Dynamic markings like 'mf' (mezzo-forte) and 'pp' (pianissimo) are used throughout. The score shows complex rhythmic patterns and textures, particularly in the violin and viola parts, with some measures marked 'sim.' (simile). The Dble. Bass part is marked 'pizz' (pizzicato) and 'l.v.' (largo vivace). The overall layout is dense and detailed, typical of a professional musical score.

Figure 5. Example of mass-texture figurations (bars 121–2)

Polyphony of quasi-folk melodies

The image shows a musical score for Figure 6, divided into two sections. The top section, labeled 'Polyphony of quasi-folk melodies', contains staves for Violins 1 through 6 and Viola 1. The bottom section, labeled 'Slow ascending bass-line', contains staves for Cello 1, Violins 7 and 8, Viola 2 and 3, Cello 2, and Double Bass. The score features various musical notations including notes, rests, and dynamic markings such as *pp*, *f*, and *ff*.

Figure 6. Polyphony of quasi-folk melodies (top box; bars 86–91) and ascending bass line (bottom box)

The image shows a musical score for Figure 7, featuring birdsong melodies. The score includes staves for Violins 1 through 6, Viola 1, and Cello 1. The music is marked with dynamics such as *pp*, *p*, and *ppp*. A tempo marking 'très doux et triste' is present at the top. The score includes various musical notations such as notes, rests, and articulation marks.

Figure 7. Example of birdsong melodies (bar 14, Group 1)

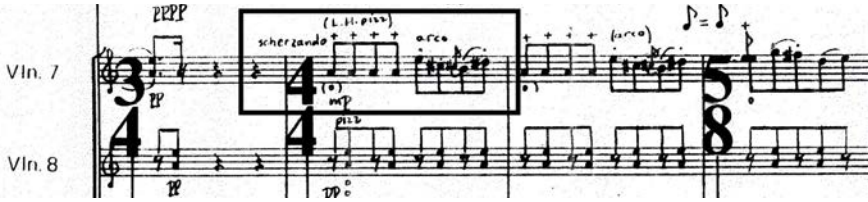


Figure 8. OB melody (within box, corresponds to bar 202)

Cherney’s version of Abulafia’s method is quite free and rests on Abulafia’s permutation matrix of all the possible letter orders of the Tetragrammaton (taken from Melzer 1976, 136; figure 9). There is a photocopy of this matrix in Cherney’s notes in which he inscribed pitches on the top of each letter. He assigns each row of the matrix to a different instrument (see his handwritten notes for “viola” and “violins 6, 5, 4, 3, 2” in figure 9a) and allocates to each row a different set of four pitches from the ascending melodic minor collection (the four pitches of the violin 6 row are from the OB melody; see figures 9b and 9c). Cherney then does a permutation of the pitches by following the order of the letters in the matrix (see figure 9d; Cherney handles the presence of two *H*s in the Tetragrammaton by simply imagining them as two different letters, as if it were H1 and H2, thus translating into different pitches). In the score, each row in the matrix becomes a new musical entry, played in steady eighth-notes (figure 10), starting with the viola at bar 45, and then moving on to violins 6, 3, 5, and 4 at bars 50, 55, 58, and 66 respectively. After its entry, each instrument transitions to playing quasi-folk melodies (marked in the score with the indication *cantabile*), and the overall texture of the passage progressively builds to the polyphony of quasi-folk melodies displayed in figure 6.

At bar 83 an ascending line in the double bass (Group 2) slowly and very subtly starts to grow out of the polyphony, literally depicting how the recitation is “working its magic” and an ascension towards the light has begun (see the bass line in figure 6). From this point on, the quasi-folk melodies texture

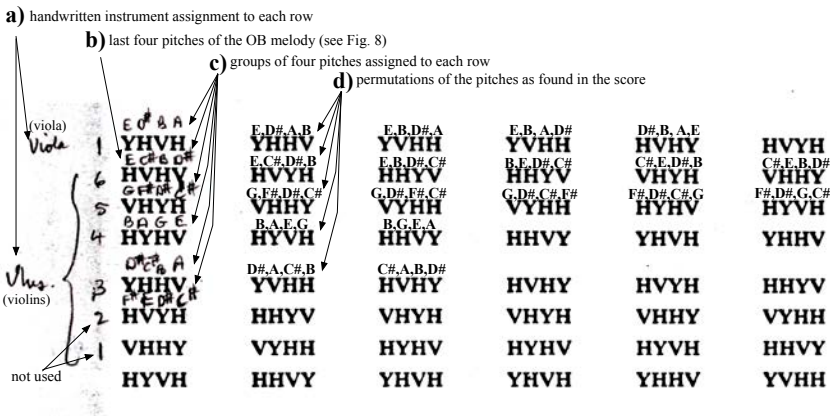


Figure 9. Permutation matrix of the Tetragrammaton (Meltzer 1976, 136), with Cherney’s instrument and pitch notations

Violin 6, m50

last four notes of the OB melody (see Fig. 8)

Cantabile marking ends the permutations

Tetragrammaton model for note permutations (see Fig. 9)

H V H Y | H V Y H | H H Y V | H H Y V | V H Y H | V H H Y

Figure 10. Example of Violin 6's musical entry (bars 50–5)

in Group 1 slowly recedes to the background and gives way to the ascending, mass-figuration textures of section III—The Ascent.

CONCLUSION

In listening to *Illuminations* in its entirety, I am struck by its paradoxical nature. On the one hand, as shown above, Cherney confronts the listener with a high degree of musical detail in the formal, harmonic, and melodic aspects of the piece, all of which are rich and stimulating on an intellectual level. On the other hand, the highly repetitive nature of the pitch material and the homogeneity of the instrumentation gives the piece a hypnotic, trance-inducing quality. This hypnotic effect seems confirmed by the sonogram presented in figure 1, which, with its clear lines of spectral energy traversing the entire piece, is more akin to the sonogram of a single instrument or voice playing one note. Several questions about the perception of the piece thus arise: How did Cherney want the listener to interpret the work? Is it a piece about meditation, or is the piece itself a meditation? Did Cherney want the listener to focus intellectually on the many details built into the work that portray a transformative meditative process, or did he wish the music to transport the audience more abstractly to another place, creating an elevated experience for the soul? The answer, of course, most likely lies somewhere in between, and both modes of listening can certainly coexist. However, this paradox demonstrates what I see as one of Cherney's greatest legacies as a composer and teacher: that music is at its best when it challenges the intellect, while also being poetically evocative. In other words, meaningful music illuminates both the mind and soul.

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ABSTRACT

Brian Cherney's *Illuminations* for string orchestra, composed in 1987, reflects ideas related to Jewish mysticism. Descriptions and accounts of meditation techniques that ultimately lead to visions of light, and even an encounter with the divine, so inspired the composer that he decided to write a piece that re-enacts a meditative cycle. *Illuminations* is thus a dramatic staging: the listener, as if granted special insight into the mind of someone who is meditating, witnesses how the mind is transformed as it approaches light (or the divine). The composition expresses light and the divine in multiple ways, from the layout of the instruments on stage, to the formal plan of the piece, to the variety of pitch collections heard throughout the work. This article unveils some of the subtle intricacies that make *Illuminations* so powerfully evocative, and why it remains one of Cherney's signal achievements.

RÉSUMÉ

Illuminations pour orchestre à cordes de Brian Cherney, composée en 1987, reflète des idées liées au mysticisme juif. Des descriptions et comptes rendus de techniques de méditation menant à des visions de lumière et même une rencontre avec le divin ont tellement inspiré le compositeur qu'il a décidé d'écrire une œuvre reproduisant un cycle méditatif. *Illuminations* constitue donc une mise en scène dramatique: l'auditeur, comme s'il pouvait se mettre dans l'esprit de la personne qui médite, est témoin de la transformation qui s'opère dans l'esprit au fur et à mesure qu'il s'approche de la lumière (ou du divin). La composition exprime la lumière et le divin de diverses manières allant de la disposition des instruments sur la scène au plan formel de l'œuvre, en passant par la diversité des hauteurs tonales entendues dans l'œuvre. L'article révèle certaines des complexités subtiles qui font d'*Illuminations* une œuvre si évocatrice et qui expliquent pourquoi celle-ci demeure une des grandes réalisations de Cherney.

BIOGRAPHY

David Adamcyk is a Canadian composer, electronic musician, and sound and recording engineer living in New York. He creates musical works for the concert hall and theatrical stage, often incorporating technology. He has worked with music ensembles in Canada, Europe, and the United States, including Talea, ICE, Juilliard, the New York Phil, Quasar, Cairn, the MSO, ECM+, and IRCAM. He holds a doctorate in composition from McGill University and currently teaches at Columbia University's Computer Music Center and at the Manhattan School of Music.