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Essay: Transformation and Transfiguration in Gérard Grisey's "Four Songs for Crossing the Threshold" Musical Composition: "Everyone Became a Trail" - Song Cycle in Five Movements for Soprano and Chamber Ensemble

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UNIVERSITY OF CALIFORNIA

SANTA CRUZ

- I. **ESSAY:**
**TRANSFORMATION AND TRANSMUTATION IN GÉRARD
GRISEY'S "FOUR SONGS FOR CROSSING THE THRESHOLD"**

- II. **MUSICAL COMPOSITION:**
**"EVERYONE BECAME A TRAIL" -
SONG CYCLE IN FIVE MOVEMENTS
FOR SOPRANO AND CHAMBER ENSEMBLE**

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

DOCTOR OF MUSICAL ARTS

in

COMPOSITION

By Assaf Shatil

March 2022

The Dissertation of Assaf Shatil is approved:

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Vice Provost and Dean of Graduate Studies

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2022

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ABSTRACT

My dissertation consists of two parts: 1. an essay presenting an analysis of Gérard Grisey's seminal work *Four Chants for Crossing the Threshold* (1999) for soprano and ensemble, in regards to concepts of transformation and transfiguration, and 2. a musical composition entitled "Everyone became a Trail" - a five movement song cycle with original texts for soprano and chamber ensemble

Grisey's *Chants* is an outstanding masterpiece that conceptually explores aspects of 'crossing the threshold' by combining poetry about death with formal approaches that strategically explore the temporal structuring of musical processes. The content and structure of the texts become a propelling source for the formalization of the musical material. In each movement Grisey presents unique musical systems that evolve through methods of transformation that inevitably lead to significant formal points of transfiguration. By globally focusing on this evolution from transformation to transfiguration Grisey presents a musical work as a metaphor for the transition between life and death. It is an experience of how time affects the evolution and decay of musical systems. Each movement in the work presents a distinct method to formalize temporal procedures that gradually transform towards a climactic point of transfiguration which inevitably leads to its concluding decay.

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Transformation and transfiguration

in Gérard Grisey's *Four Songs for Crossing the Threshold*

By Assaf Shatil

Today, as in the past, music transfigures time.¹

Introduction

Gérard Grisey (1945-1998) referred to his song cycle, *Four Songs for Crossing the Threshold* (1999),² for mixed chamber ensemble and soprano, as “a musical meditation on death.”³ Yet ‘meditation’ here is not merely a lamentation for the end of life but more so an exploration into the temporal evolution of processes of transformation and transfiguration. Texts about death become an impetus for a unique investigation of both metaphoric and sonic ‘threshold crossing’ in each of the four movements of this 45-minute work. In every movement Grisey sets up sonic procedures that gradually evolve towards an inevitable moment of exaltation and then successive decay. The temporal journey of ‘crossing the threshold’ becomes both a conceptual and structural idea for musical systems where ongoing transformations lead to these dramatic formal points of transfiguration that expose the timbral evolution of the ensemble’s sound in each movement.

¹Grisey, Gérard. ‘Did you say Spectral?’. *Contemporary Music Review* 19/3 (2000), 1–3.

² Premiered February 1999 by The London Sinfonietta conducted by George Benjamin with Soprano Valdine Anderson.

³Grisey, Gérard. “Quatre Chants Pour Franchir Le Seuil.” Program Notes for London Sinfonietta.

The preliminary title of the work was *Chants de Mort et d'Éternité* - songs of death and eternity. The final title, dedicating the songs to 'crossing the threshold', redirects our attention not only to the particular transition between life and death but more so towards the piece as a multidimensional conceptual poetic structure. The journey towards a point of transfiguration becomes an impetus for both the texts and the musical setting. In the context of the piece, 'threshold' implies a multitude of meanings: threshold of existence; threshold of perception; of duration; of timbral recognition; of pitch; of noise; of register; of audibility; of periodicity and of temporal sensation, among others.

In this essay I will investigate how Grisey formalized and constructed processes of sonic transformation towards global sonic transfigurations. These transfigurations, both conceptually and architecturally, structure the form of each movement. I see two substantial gradual 'long form' transfigurations in the first and fourth movements but ideas of transformation and transfiguration are sonically and conceptually present in all of the movements: we witness the evolution and emergence of sounds, their life spans, aging and final decay often in a multitude of temporal layers from the micro gesture to the macro arching wave shape of formal sections. I will analyze the form of each of these movements in terms of their gradual changes in tempo, orchestration, directionality, evolution of material, contour shapes and critical points of transfiguration.

Texts and movements

The work as a whole is made of four movements separated by an instrumental prelude and interludes, although the *Berceuse*, which is the last section, is often seen by scholars as a fifth movement. Each movement includes an adaptation of text chosen by Grisey from diverse sources and cultures:

Prelude

Movement I - *The Death of an Angel*

D'après Les Heures à la nuit - Based on a poem by Christian Guez Ricord

Interlude

Movement II - *The Death of Civilization*

D'après Les sarcophages égyptiens du moyen empire - based on texts Grisey assembled from a catalogue of ancient Egyptian funerary inscriptions.

Interlude

Movement III - *The Death of the Voice*

D'après Erinna - Based on a fragment by the ancient Greek poetess Erinna.

Faux Interlude

Movement IV - *The Death of Humanity*

D'après L'épopée de Gilgamesh - Text assembled from the Sumerian Epic of Gilgamesh.

The four-movement structure alludes to a symphonic structure although it omits silent gaps between movements and instead connects movements continuously by means of unpitched percussion interludes. Noise becomes a timbral layer from which the movements emerge. Only the interlude following the third movement entitled '*False Interlude*' is transformed into an integral musical bridge leading to the fourth movement. While each movement has a distinct and particular structure, text and orchestration, there are still musical ideas and gestures that weave through all four movements similar to late 19th century song cycles.

Orchestration

The orchestration is structured around two main instrumental groups that are seated accordingly on stage. I will refer to them as group 1 and group 2 as described below:

1. Group 1: 'frontal quartet' consisting of soprano, violin, flute and trumpet.
2. Group 2: three instrumental quartets consisting of low winds, plucked instruments and percussion.

Orchestral distribution in the first movement

<u>Group 1</u> Frontal quartet	Voice Trumpet Flute Violin		
<u>Group 2</u> 3 Back quartets	Quartet x: 2 Sax Cello Percussion I	Quartet y: 2 Cl Contrabass Percussion II	Quartet z: 2 Tuba Harp Percussion III

Table 1.

The three quartets of group 2 are seated in a half circle behind the group 1, as shown in the following diagram from Grisey's score⁴:

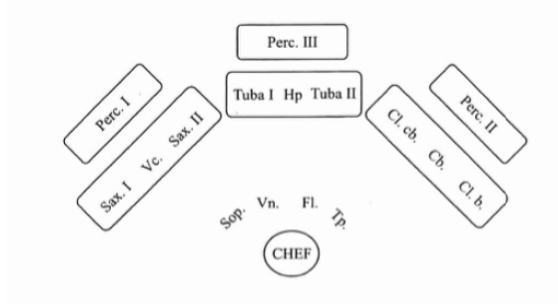


Figure 1. Instrumental stage layout in *Chants*

The spatialized staging is used to great effect by Grisey as the frontal mid-high register instruments are engulfed by the deep and low growl and rumble of the surrounding quartets. This disposition of instruments brings to mind the Baroque concerto grosso which typically involves two ensembles - one large and one small. The frontal quartet is similar to the solo ensemble in Bach's second Brandenburg concerto which consisted of trumpet, flute, violin and oboe - high pitched instruments that were associated with angels in the Renaissance and the Baroque periods. I interpret this as a metaphor Grisey is using to emphasize both a religious sense of a surrounding 'choir' and a frontal cantorial section, while also giving the work a symbolic visual reference to the history of Western European music.

⁴ Grisey, Gérard. *Quatre Chants Pour Franchir Le Seuil*, Ricordi, 1999.

The evolution of a 'spectralist'

Chants became Grisey's last completed work. Among his body of work from a career spanning almost three decades as one of the most influential French composers of the late 20th century and originator of 'spectral music', *Chants* stands out in its unique poetic, conceptual and even political dimensions. The obsession throughout *Chants* on the deterioration of humanity exposes an uncommon programmatic social commentary from Grisey as he states in his notes to the final section of *Chants* (*Berceuse*):

I dare to hope that this lullaby will not be of the sort we will sing tomorrow to the first human clones when we feel the need to awaken them to the unsustainable genetic and psychological violence that have been laid down for them by a humanity desperately in search of foundational taboos.⁵

While previous projects, that became exemplary of 'spectralism', like the cycle *Les Espaces Acoustiques* (1974-1985), were the result of research into acoustics, spectrogram analysis alongside properties of the harmonic series, whereas *Chants'* main preoccupation is with death and the apocalypse through a formal prism exploring the transformative aspects of temporality.

In many ways it was a sign for a new level of artistic growth. Interestingly, Grisey published the article "*Did You Say Spectral?*" only a few months before

⁵ Grisey, Gérard. "Quatre Chants Pour Franchir Le Seuil." Program Notes for London Sinfonietta.

completing *Chants*. In it in many ways he is reflecting on 25 years of ‘spectralism’. The article can be seen as an attempt to offer an expanded view on ‘spectralism’ as a conceptual concern rather than a mere technique, while also a reconciliation with the term ‘spectralism’ yet with the hope that music should be listened to with no preconceived notions. In the article he asserts the focus of a spectral composer on the formalism of temporal processes:

What is radically different in spectral music is the attitude of the composer faced with the cluster of forces that make up sounds and faced with the time needed for their emergence. From its beginning, this music has been characterized by the hypnotic power of slowness and by a virtual obsession with continuity, thresholds, transience and dynamic forms...spectral music treats (time) as a constituent element of sound itself. This music forces itself to make time palpable in the ‘impersonal’ form of durations...⁶

This fascination with the effects of time on material is at the basis of the conceptual settings of the texts in *Chants*. Rather than woven as episodic collections, the settings of the texts and their morbid subjects are laid out in each song by the formal structuring of mass transformation towards an overall transfiguration. Death becomes the absolute organic exemplifier for a terminal state which formalizes a temporal human experience through a dramatic sonic transition.

⁶Grisey, Gérard. ‘Did you say Spectral?’. *Contemporary Music Review* 19/3 (2000), 1–3.

The conceptual and gestural wave shape

At both the micro and macro levels, the archetypal shape of a wave, with its ascending and descending slopes, dominates the material and becomes a vessel with which to structure transformative processes towards transfiguration. The shape of the wave and its properties as a platform for gradual energetic change and decay over time, manifests itself in Grisey's formal systems as a driving structural force.

The wave can be seen in long form contour shapes and in the fluctuating durations of sections or tempo changes and at other levels as well. The wave becomes a metaphor for growth and decay, for sea waves and apocalyptic flood and also for the most basic transitory aspects of a sound wave. Furthermore, the common shapes of the primary waveforms: sine wave, square wave, triangle wave and sawtooth wave, become structuring designs that temporally outline various sonic parameters. The wave configuration models the primordial shape to illustrate the curve of a temporal existence. It is a sonic, formal and conceptual structuring force that sonically exemplifies most clearly the process of transformation and transfiguration.

Transformation and transfiguration

I use the terms 'transformation' and 'transfiguration' in particular ways in this essay. Transformation refers to prescribed gradual processes for the evolution of a sound structure over time. While listeners and analysts alike can understand these transformations as variations or developments it's important to note that

transformation is not a mere exploration of the elasticity of the material but an exploration of the ways in which time directs the material towards a consequence. These gradual changes in musical material will lead to an inevitable point or points of ‘transfiguration’ which as my analysis will show, becomes a terminal state usually at the global formal level ending each movement.

Transfiguration is the consequential and inevitable result of time passing: the way in which temporality brings forth transformative changes towards a culminating state. It is also a way to bring closure to an ongoing procedure - Grisey stated that “the structure as complex as it may be should stop at the perceptibility of the message”⁷. In that sense we can look at transfiguration as a conclusion of a process that reveals its direction but redirects our perception.

‘Transformation’ and ‘transfiguration’ are terms extracted from Grisey’s own texts relating generally to his compositional work. Methods for producing stages of sonic transformation are essential compositional procedures in Grisey’s work. They are ways in which he presents sound as an entity that portrays its own evolving history throughout a composition. As Grisey states in his Darmstadt lecture, *Die Entstehung des Klanges*:

In my music, sound can never be considered for itself but always goes through the filter of its history. Where does it go? Where does it come from? I ask myself these questions every moment writing the score.⁸

⁷ Haselböck, Lukas. 2009. *Gérard Grisey: "unhörbares hörbar machen"*. Freiburg i. Br: Rombach.

⁸ Gérard Grisey: Zur Entstehung des Klanges, in Darmstadter Beiträge zur Neuen Musik, Ferienkurse (1978), 73.

Furthermore, Grisey related to his sound structures as organisms with their own life spans, that go through their own transformative life cycles:

From now on it is impossible to think of sounds as defined objects which are mutually interchangeable. They strike me rather as force fields given direction in time. These forces...are infinitely mobile and fluctuating; they are alive like cells, with a birth, life and death and above all tend towards a continual transformation of their own energy...⁹

These transformative aspects of a sonic structural unit are related to the transitory aspects of sound itself. As Grisey states:

Since sound is transitory...object and process are analogous. The sound object is only a process which has been contracted, the process nothing more than a dilated sound object. Time is like the air that these two living organisms breathe at different altitudes.¹⁰

While transformation can describe the procedural processes that Grisey employs to push forward his musical structures, it is the resultant transfiguration that becomes the essential formal goal of the temporal processes taking place.

⁹ Grisey, Gérard. 'Tempus ex machina: A composer's reflections on musical time'. *Contemporary Music Review* 2/1 (1987), 268.

¹⁰ *Ibid.*, 269.

Transfiguration relates to larger formal temporal markers and also relates to a spiritual metaphysical exaltation which fits well with the content of the texts in *Chants*.

Transfiguration brings closure to the temporal consequences of sonic evolution and exposes their ultimate inexorable destiny. For Grisey, this moment of transfiguration is a critical temporal sensual destination in the formal structure of the composition.

As he states in his essay *Tempus Ex Machina*:

These transfigured moments of time fulfill us to the point of ecstasy since they are, at a given moment, exactly the fulfillment that our “emptiness” requires, or the vertiginous vacuum to which our body, saturated with physiological rhythms, would aspire.¹¹

¹¹Grisey, Gérard. ‘Tempus ex machina: A composer’s reflections on musical time’. *Contemporary Music Review* 2/1 (1987), 274.

In the following page (table 2) I summarize how I relate to elements of transformation and transfiguration in my analysis.

	Transformation	Transfiguration
Definition	An operation or process applied to a musical gesture of a particular orchestral group, through fluctuating changes in particular parameters.	The point at which stages of transformation have aged so much they reach a critical phase of evolution.
Timbre	Timbral changes in individual or smaller units of instrumental groups. We perceive a multiplicity of timbral layers.	Global change to expose a timbral convergence of the collective sound. From a multitude of components, we now perceive the whole more than the sum of its parts.
Temporality	Gradual changes in the speed and pacing of the transforming units. The process of transformation will usually be longer in duration than the transfiguration.	As the units converge, the temporal distinction moves from the local to the global. We perceive a slower periodicity of larger formal units. The moment of transfiguration marks in hindsight the duration of previous transformations.
Directionality	Transformation moves in all sonic layers gradually to an inevitable destiny and not mere episodic shift of texture.	Transfiguration marks the closure of a collective process and will lead to a gradual decay. There could be formal stages of transfiguration as we will see in movement IV.
Consequence	The end result of the transformative process is transfigurative: a change in the overall perception to a more concentrated group sound.	The critical formal end of the movement or of a substantial section.

Table 2. Concepts of transformation versus transfiguration

Movement I - D'après “Les heures à la nuit” de Guez Ricord

The first movement lasts about twelve minutes and begins immediately after a short unpitched percussion *Prelude*. The movement is subtitled by Grisey as ‘The Death of an Angel’ and uses a passage taken from the poem *Les Heures à la nuit* by French poet Christian Gabriel Guez Ricord (1948-1988). The text is used by Grisey as both a conceptual framework and as a formal template for the structuring of the musical material. From a bird’s eye point of view, the form of the movement is comprised of three main parts:

- Part 1: ~9.30 minutes - bars 1-145 - evolving polyphonic texture.
- Part 2: ~1.25 minutes - bars 146- 180 - homophonic, climax and decay.
- Part 3: ~1.10 minutes - bars 181-190 - short polyphonic codetta.

The ongoing transformations in part 1 evolve gradually towards the global transfiguration in part 2, which begins at rehearsal number 28. Grisey reserves the last two lines of the poem for this critical moment in both the poem and in the form of the movement by bringing the ensemble to a dramatic point of synchronization. The inevitable end result of part 1 crystallizes the formal transfiguration of the first movement from a meandering polyphonic texture to a concluding homophonic texture.

After the complete decay of the ensemble at the end of part 2, part 3 emerges as a short reconstruction of elements from part 1, like a eulogy for the deceased angel. I will now go over the essential transformations in part 1 of the movement and explain their evolution towards this consequential transfiguration in part 2.

Transformation of global tempo

A significant structuring device for the form of the movement can be clearly seen through the gradual changes of tempo throughout the entire movement as demonstrated in Figure 3.

Tempo change in the first movement

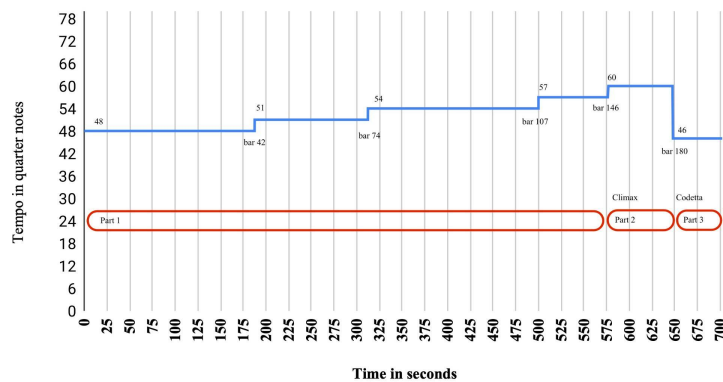


Figure 2. Tempo change in movement I

The tempo is rising gradually in steps of 3 bpm in four stages from 48bpm to the point of climax in part 2 at 60 bpm (in the score marked as eighth = 120). After all sounds subside to silence, the final codetta concludes at 46 bpm, 2 bpm slower than the opening. While we will see that Grisey uses tuplets to imply other tempi in local structures, the above transformation of the speed of musical time towards clock time (60 bpm: pulse in seconds) is a key feature of Grisey's rearrangement of the meandering poem. Specifically, Grisey aligns formally the revelation of the death of the angel with the concurrent peak of the tempo change. In addition, this arrival at clock time (60 bpm) is also the arrival of a change to a texture in which the voice and

flute imply a fast, jagged periodicity while the rest of the instruments play long tones. At this moment the sense of temporal direction has been suspended and transfigured as listeners look for anchors that gradually dissipate. It is both a place in which we realize that nothing else can be done, and a place where we realize the temporal weight of the previous procedures of the piece.

This gradual change of the global tempo instills a building sense of urgency in the other procedures that go on throughout Part 1 of the first movement. The transformation of tempi gradually increases the overall density and proximity of phrases mainly in the voice. It creates a sense of intensifying growth of an environment that has gradually pushed its operative systems to a critical point.

Part 1: bars 1-146

Part 1 of the first movement is characterized by complex polyphony between the three quartets in group 2 and also between group 2 and group 1 led by the vocal part. As will be shown below, this substantial part of the movement is structured with distinct procedures in each of the four quartets, gradually transforming both the music and the poem to a point of transfiguration.

The poem itself is structured by textual transformation, verse by verse, of an opening statement. As Hevre states “the poem also seems like a process of greater and greater distortion of the opening phrase.¹²” Translated to English, the opening sentence of the poem, “he who is expected to die like an angel” is transformed at the beginning of each subsequent verse to “as it is expected to die like an angel” and

¹² Hervé, Jean-Luc. “Quatre Chants Pour Franchir le Seuil” in *Contemporary Compositional Techniques and OpenMusic*, eds. Hirs, Rozalie, and Bob Gilmore. (Paris: IRCAM, 2009) 33.

finally to “how he died like an angel”. It is a textual transformation that evolves from a speculative tone towards a firm confirmation.

I will now demonstrate the most essential transformations in each of the two instrumental groups and how they are laid out together towards the climax in part 2.

Transformation of material in group 2

The three quartets of group 2 open the movement with a transformative canonical procedure that will temporally structure all of part 1 (bars 1-146). The canonical material and its composite structure in sections is based upon a cyclical “recitation” of lines a-j of the poem (table 3) with descending figures grouped according to the number of syllables of each line: 4-3-2,7-3-3-3-2,6-6.

Line variable	Text	Number of syllables	Verses	English Translation
a	De qui se doit	4	Verse 1 3 lines	Of he who is expected
b	de mourir	3		To die
c	comme ange	2		Like an angel
d	comme il se doit de mourir	7	Verse 2 5 lines	As he is expected To die
e	comme un ange	3		Like an angel
f	je me dois	3		I expect myself
g	de mourir	3		To die
h	moi meme	2		The same
i	il se doit son mourir	6	Verse 3 4 lines	He has to die
j	comme ange est de mourir	6		Like angels have to die
k	comme il s'est mort	4		How he died
l	comme un ange	3		Like an angel

Table 3. Analysis of the poem and its structure in lines, vowels and verses

Grisey divides group 2 of the three quartets as x, y, z (table 4). Each quartet initially follows the canonical procedure at different speeds - quartet x in quintuplets, quartet y in eighth notes and quartet z in quarter note triplets. The poem thus, is repeatedly “recited” polyphonically at three different speeds, implying multiple periodicities around the global tempo. This primary system is demonstrated in the following score excerpt from the first three pages of the movement:

‘Recitation’ in the opening of movement 1, part 1 (bars 1 -12)

I – D’après “Les heures à la nuit” de Guez Ricord

I 4 $\text{♩} = 48$ Misterioso, come da lontano *
Tutti dolcissimo e molto legato

Sax. ALTO (accordé un quart de ton plus bas)

X
Saxophone 1
Saxophone 2
Violoncelle
Percussions 1
STEEL DRUM

Y
Clarinette basse 1
Clarinette basse 2
Contrebasse
Percussions 2
MARIMBA

Z
Tuba ténor
Tuba basse
Harpe
Percussions 3
GONGS

* Nota: Les ppppp possible s'accordent sur l'instrument le plus fort. L'équilibre entre les trois groupes doit donner à peu près: Sax., Vcl., Perc. 1: ppppp — Clar., C.B., Perc. 2: ppp — Tub., Harpe, Perc. 3: pp
Vcl., C.B. et Harpe soulignent l'arrivée des phrases sans trop accentuer. Perc. 1, 2 et 3 doivent rester très équilibrées, en fond sonore (roulement imperceptible).

Figure 3 shows the first three pages of movement I. This page (3) contains the following parts:

- Sax. 1 & 2:** Includes instructions like "prendre le SAX. TENOR (accordé un quart de ton plus bas)" and "pppp possible".
- Vic. (Violins):** Includes dynamic markings like *pp*, *pppp possible*, and *norm*.
- Perc. 1:** Includes "G. CASSE (mailloche légère)" and "STEEL DR.".
- Clar. B. 1 & 2:** Includes "prendre la CLAR. BASSE" and "pppp possible".
- Perc. 2:** Includes "G. CASSE (mailloche moyenne)" and "M.A.R.".
- Tub. T. & B.:** Includes various rhythmic markings and dynamic markings like *ppp*.
- Harpe (Harp):** Includes *ppp* markings.
- Perc. 3:** Includes *ppp* markings.

Annotations on page 3 include:

- Green box: "group x - 25 beats" (at measure 14)
- Green box: "group y - 31.25 beats" (at measure 20)
- Purple circles around "G. CASSE" markings in Perc. 1 and Perc. 2.
- Numbered boxes 2 and 3.

This page (4) continues the musical score with the following parts:

- Sax. 1 & 2:** Includes *pppp possible* and "très légèrement en dehors".
- Vic. (Violins):** Includes *ppp*, *ppp possible*, and *norm*.
- Perc. 1:** Includes "G. CASSE" and "STEEL DR.".
- Clar. B. 1 & 2:** Includes *pppp possible*.
- Perc. 2:** Includes *ppp*.
- Tub. T. & B.:** Includes "con cordina" and *pppp possible*.
- Harpe (Harp):** Includes "près de la table" and *pp*.
- Perc. 3:** Includes "G. CASSE (mailloche moyenne)", "GONNET", and *ppp*.

Annotations on page 4 include:

- Green box: "group z - 41.66 beats" (at measure 14)
- Purple circles around "G. CASSE" markings in Perc. 1 and Perc. 3.
- Numbered boxes 3 and 2.

Figure 3. First three pages of movement I

I was fortunate to visit the Paul Sacher Institute in Basel in October 2021 to look over Grisey's notes that relate to this work. In one of the documents I found, Grisey sketches a graph that illustrates the exact distribution of durations for the x,y,z quartets for part 1 along the time axis. He delineates the climax with a vertical red line at 500 seconds along the time axis, with the text: "retour synchrone et fusion" (return to synchronization). While Grisey marked the 500 second line in his graph, the climax in the actual score arrives after ~575 seconds at bar 147. Checking the beat count - the 500th beat in the final piece falls exactly in rehearsal 28 aligned with the immediate climax. The difference between Grisey's original 500 marker and the score is due to the gradually changing tempo which Grisey added after this preliminary layout in seconds. (See Figure 4.)

In the graph (approximated in Fig 4) Grisey structures the fluctuating durations of each reciting quartet (x,y,z) in relation to a median duration for each quartet. The median duration of each cycle is in proportion to the median length of 25 seconds for group x, hence the median of group y is $5/4 * 25 = 31.25$ and the median of group z is $4/3 * 31.25 = 41.66$. In the whole of part 1, group z "recites" 12 cycles (similar to the 12 lines of the poem), while group y "Recites" 16 cycles and group x "recites" 20 cycles. The ratio between these recurrences is 3:4:5 - similar to the lines in each verse of the poem. This distribution of durations corresponds to the varying initial speeds of each group which also corresponds to their unique orchestration as summarized in the following table:

Quartets	x	y	z
Common divisions of the pulse	Quintuplets (10:4 quarters)	Eighth notes (8:4 quarters)	Quarter note triplets (6:4 quarters)
First and median length of recited material (according to Grisey's 500 second graph)	25 seconds	31.25 seconds $25 \times 5/4 = 31.25$	41.66 seconds $31.25 \times 4/3 = 41.66$
Number of cycles	20	16	12
Winds	saxophones	clarinets	tubas
Plucked	cello	contrabass	harp
Percussion (mostly sustained tremolos)	Steel drum	Bass marimba	gongs

Table 4. Quartets x, y, z

My sketch of Grisey's graph represents the change of durations as ascending and descending waves - each line is in the length of its duration but pointing towards the next duration. Grisey's original template marked the temporal distribution of all the main structural elements of the movement: canonic duration for x,y,z, vocal part, tempo change and change of harmonic spectra. Since no documentation is allowed at the Sacher, I designed and annotated a similar graph on the basis of my notes that outlines the durations of groups 2 towards this moment of fusion:

Reproduction of Grisey's graph: Fluctuating durations of recitation units for groups x,y,z until the climax (bars 1-146)

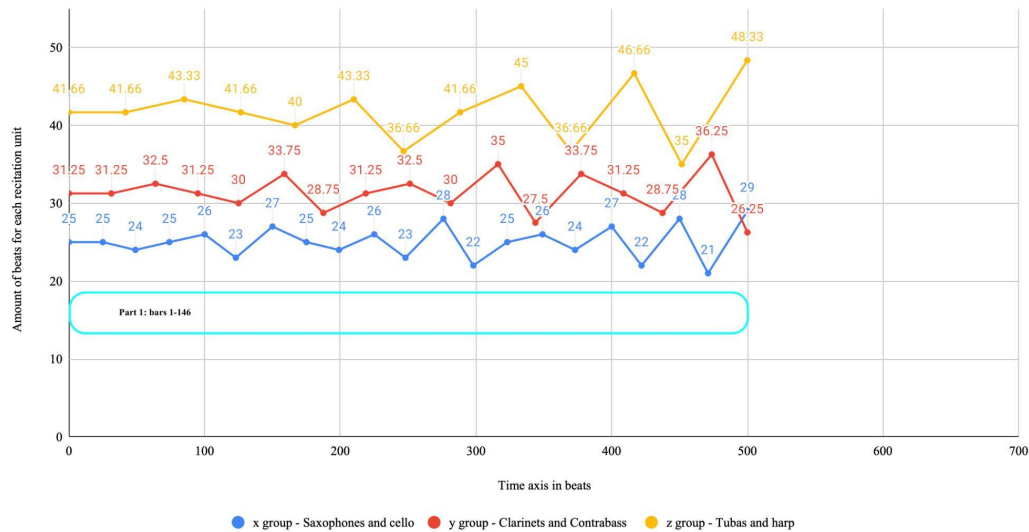


Figure 4. Fluctuating durations for groups x,y,z in part 1 (bars 1-146)

At first glance we can see how the shape of the wave structures the fluctuations of durations for each canonical group. We can also observe how groups y and z share the same contour while group x moves in contrasting directions. Although the passing of time alters the length of each recitation there is an overall temporal scheme that directs groups x,y,z to a single coordinated and conclusive destination where after the last recitation the instruments of group 2 sustain their last note into part 2.

Hence, this layered three-tempi recitation canon serves as the basis for gradual transformations through various alterations from its initial systematic organization. At the beginning of the movement, Grisey presents the initial orchestrational system for each quartet:

- The winds play descending scales in half steps and quarter tones grouped corresponding to the number of syllables omitting lines k and l (Figure 4.).
- Each quartet is harmonized with low pitched percussion tremolos.
- Two bass drum hits mark the end of each cycle for each quartet.
- Cello, harp and bass pluck the end of words played by the winds.

Throughout part 1, this opening system is gradually transformed while still keeping the particular temporal layout, all the way to bar 146. While some scholars see this transformation as a distortion or a gradual destruction of the system, I see it as a way for Grisey to demonstrate the outcomes of time passing: what he terms “temporal consequences: integration of time as the very object of form¹³”. Grisey uncovers the temporality of the eroding material that inexorably leads to the point of transfiguration at bar 146.

In his sketches Grisey denotes types of particular transformation to the different sections of the poem, as if these recitations - like prayers - are affected by temporal force fields. The bottom row of the following table (Table 5) is a sketch of the various transformative processes Grisey assigned to each part of the poem (as reproduced and translated from his sketches archived at the Paul Sacher Institute).

¹³Grisey, Gérard. ‘Did you say Spectral?’. *Contemporary Music Review* 19/3 (2000), 1–3.

Archetype a	Archetype b	Archetype b'	Archetype c+c'	Archetype c'
De qui se doit De mourir Comme ang	Comme il se doit de mourir comme un ang	Je me dois De mourir moi-meme	Je se doit son mourir Son ange est de mourir	Comme il sest mort Comme un ange
Acc or rall/ progression linear Mutation Change in density	Contrasts max mutation	Repetition-affir mation mutation	Proliferation Mutation contraction	Rupture, silence without mutation

Table 5. Grisey's Archetypes of transformation

Here are a few general examples for these ongoing transformations of the initial canon:

1. In every recurring melodic reiteration of the poem's syllables, the first line of the preceding iteration is omitted.
2. In every reiteration the rhythmic values are slightly altered.
3. The plucked instruments shift roles. For example, the cello that at first punctuates the ending of phrases in group x, gradually takes the role of also playing descending figures and at one time plays even an ascending one, which is very rare for group 2.
4. Spectral changes - spectra that determine the harmony of larger temporal sections shift gradually at every hit of the tamtam.
5. Short notes from the winds become longer as a way to mark a stop or to pause the canonic drive and also as preparation for part 2.

6. While each group is marked by tremolo low percussion as described in Figure 7, there are momentary shifts to additional percussive colors, and descending figures similar to the wind instrument’s canon.

Transformation of Spectra

The overall pitch material in the entire movement is organized within temporal areas of harmonic spectra that gradually change throughout part 1 from E to Bb in whole steps: E-D-C-Bb. After the climax in part 2, in the postlude (bars 181-188) the spectrum descends one more whole step to Ab. I will focus on the organization of spectra in part 1.

In the Sacher graph I mentioned before, based on the preliminary duration of part 1 in 500 beats, Grisey aligns the duration for the change of Spectra with each of three ‘recitation’ cycles of quartet z, as can be seen in Figure 5.

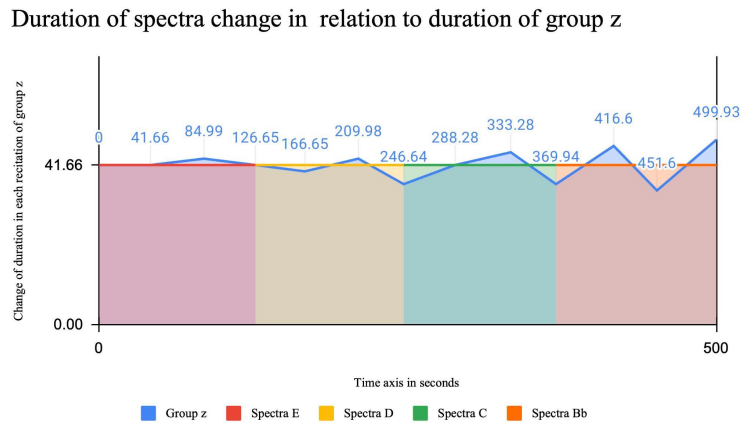


Figure 5. Durations of spectra change in relation to group z

For each spectrum, as Jean Luc Herve demonstrates in his analysis “Grisey constructs quartertone scales based on the odd-numbered partials of a harmonic

spectrum within an octave.”¹⁴ In addition partials are distributed between the three back quartets according to their order in the spectrum so that the lowest partials are used mostly by the z quartet (tubas and harp) and higher partials by the y quartet (clarinets and bass) while the highest are reserved for the x quartet (saxophones and cello). This kind of pitch distribution in conjunction with the varying internal speed of each quartet adds another aspect of timbral complexity to the already distributed orchestration.

Following the two tuba’s (group z) melodic lines from the beginning of the score until bar 146 we can see four stages of descent each concluding with the momentary sustain of the fundamental by the low tubas (Figure 6). The Bb fundamental becomes the end goal of part 1 as it concludes the fourth descending stage and also serves as the opening drone for part 2. This temporal allocation of pitch in four spectral areas is structured in correspondence with the 12 recitation cycles previously demonstrated for group z, as shown in the following piano roll representation of the two-tuba part between bars 1-146 (Part 1):

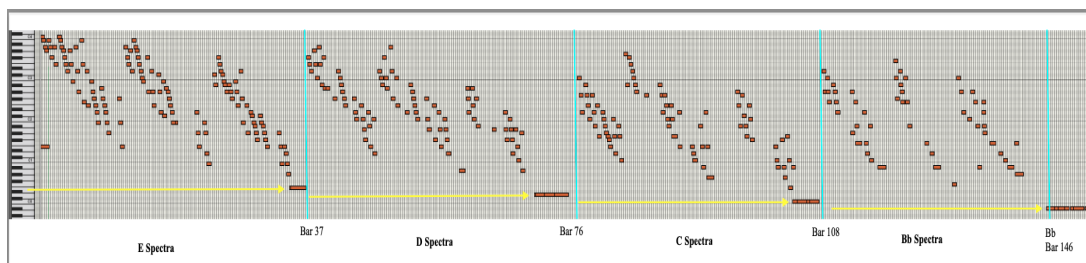


Figure 6. Piano roll representation of the two tuba part (bars 1-146)

¹⁴ Hervé, Jean-Luc. “Quatre Chants Pour Franchir le Seuil” in *Contemporary Compositional Techniques and OpenMusic*, eds. Hirs, Rozalie, and Bob Gilmore.(Paris: IRCAM, 2009) 34.

Looking at Figure 6 we can see how the density of material in the tuba decreases with each spectrum change. We can also see how the tendency to descend towards the fundamental is similar in each stage and as such can be seen as sequential. In addition the increased sustain of each concluding low fundamental foreshadows the destined homophonic function of groups x,y,z in part 2.

Part 1 - Elements of transformation in the vocal part

We can hear the structure of the first movement through the timbral and conceptual contrasts between the vocal materials (and group 1 generally) and the materials of group 2 - the three back instrumental quartets. The voice emerges out of the polyphony of group 2 after about 85 seconds, and thus delineates this first section as a kind of instrumental introduction. The soprano gradually ascends in register until it converges with the ensemble at the peak point in bar 147.

The musical material and pacing of the sung phrases differ from the back quartets. The voice naturally sings in a higher register than group 2 and the global contour of the melodic material of the voice is ascending while for group 2 it is mostly descending. Beginning on G4, the voice gradually climbs until it reaches a high C6 at part 2 and then descends to G3 at its lowest register at the end of part 3. This is illustrated in the following figure:

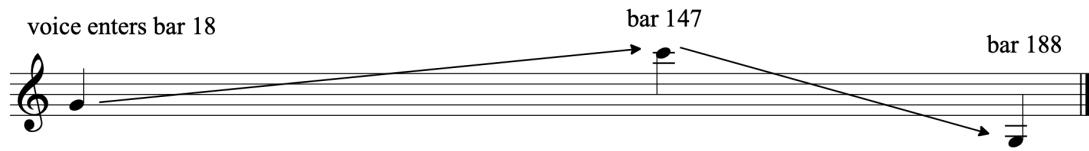


Figure 7. Voice pitch contour in movement I (bars 18-188)

Each vocal phrase is made of short fast trills that end with a sustained tone. These trills begin in small intervals and gradually expand. The trill as a metaphor also demonstrates a concentrated kind of wave shape. This shape becomes a structure both at the cellular level and the formal level, adding another aspect for the concept of transfiguration.

The sung phrases float over the instrumental texture as the vocal phrases are intermittent with silent gaps, while the polyphony of group 2 is continuous. From the first entrance of the voice in bar 18 these gaps in the voice's phrases gradually get shorter until the voice's phrases reach their peak continuous density in part 2. For the whole of part 1, the voice sings the three verses while omitting the last two lines of the poem, then repeats the entire poem more urgently before reaching the climax with the final two lines. The text of the vocal part in the entire first movement marks eight sections as illustrated in table 6.

	Part 1					Part 2		Part 3
	Instrumental	Verse 1	Verse 2	Verse 3	Verses 1,2,3	Climax	descend	Codetta
Bar numbers	1-17	18-58	59-104	105-123	124-145	146-166	167-180	181-190
Number of bars	17	41	46	19	22	21	14	10
Poem lines (keyed to Figure 5.)		ababc abc	dedefg fge	hhi	abccc defg hi	j	k	k
Duration	~85''	~200''	~191''	~84''	~61''	~41.5	~26.5	~52
Text		De qui se doit de mourir x2 Comme un ange De qui se doit de mourir, comme un ange	Comme il se doit de mourir Comme un ange Comme il se doit de mourir, ange Je me dois de mourir Je me doit de mourir moi même	Il se doit son mourir Il se doit son mourir son ange est de mourir	De qui se doite de mourir comme un ange Comme ange Comme ange Comme il se doit de mourir Comme un ange Je me dois de mourir Moi meme Il se doit de mourir Son ange Est de mourir	Comme il s'est mort (repeated)	Comme un ange (repeated)	Comme un ange (repeated)

Table 6. Text layout of the vocal part in movement I

Looking at a piano roll representation of the voice part in all of movement I in Figure 8, we notice the large formal arc and the ongoing tendency to sustain the higher notes in particular, which mark another pattern of ascension. We can also notice the gradually increased temporal density in the voice section towards part 2, and the deep descent in part 3 towards the voice's lowest register.

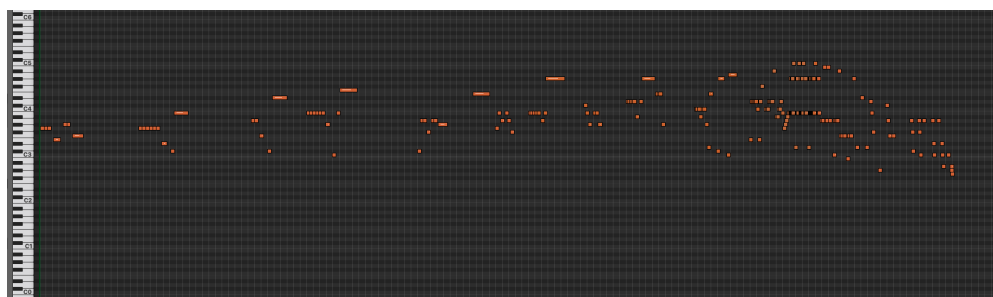


Figure 8. Piano roll representation of the voice part (bars 18-190)

The transformations in the voice part lead the ensemble towards the exalted stage of part 2, where the trill idea has expanded to loud fast wide continuous arpeggios that only subside when the winds decay. Instead of finishing on long tones as the voice was doing in part 1, now, in the end of part 2 and part 3, the voice has completely transformed to conclude the movement with lyrical descending figures and repeated words: “*comme un ange*”.

Not only aspects of text painting are explored here but also the way the human voice is situated inside the texture and its journey towards a point of radical change, symbolizing the transition between life and death. In a diary entry from July 1996 while beginning work on the piece, Grisey contemplated on the place of the human voice among the instruments, wondering:

...if it is possible to dissociate the melody or the vocal gesture from the text it puts into sound: echoing the dissociation already operated...between voice

and sound, a sort of reflection of the human situation and of the cosmos:
fusion, harmony or indifference, sterile struggle.¹⁵

Transformation in the instrumental roles of group 1 in part 1 and part 2

The progress of the voice part is highlighted with another process involving the instruments of the frontal quartet (group 1). The order of appearance of the instruments and their functional use is part of an orchestrational transformation that also signifies the form of the movement.

In part 1, the voice is gradually joined by trumpet and then flute to outline the last vowels of phrases with swells of harmonized sustained dyads. These swells serve several functions:

- They bring contrast to the fast voice trills and thus mark larger temporal phrases.
- They outline a larger temporal ascension towards the peak at part 2.
- They prepare us for the final fusion and homophonic ‘resolution’ in part 2.

These swells at the end of phrases in Group 2 can be seen as connections between group 1 and group 2 in preparation for the climax. Moreover, the gradual addition of instruments also delineates the sections. For example, the trumpet is the first instrument from the frontal quartet that joins the voice at bar 39 while the flute only joins at bar 62 while the violin appears for the first time at the climax of part 2 in

¹⁵Grisey, Gérard, Guy Lelong and Anne-Marie Réby. “Écrits, ou l’invention de la musique spectrale.” (2008), 326.

bar 146. This orchestrational delineation continues as the role of the frontal instruments change in Part 2 as the violin holds a long sustained major 7th double stop, while the trumpet punctuates dynamic swells in the violin and the flute joins the voice with unison rhythms. This continues throughout the climax until bar 164 when the voice is finally left alone with few echoes from the violin at its mid register. The emergence of these exposed violin figures only enhances this concluding transfiguration: as if the violin was ‘born’ out of this climax. In Part 3, the final postlude, Grisey omits the trumpet, flute and violin completely and the voice is left alone with the instruments of Group 2.

The following table summarizes the transformation of roles in the instruments of Group 1:

Trumpet - evolving roles	Flute - evolving roles	Violin
Swell dyad above voice	Swell an octave dyad below voice	Only emerges in Part 2 climax with sustained double stop.
Swell dyad below voice	swell unison with voice	Descending figures close the section and are echoed by voice as a conclusion.
Swell dyad with flute and voice	Swell unison with voice and trumpet	
Climax - high punctuating violin swells	Rhythmic unison with voice - high register	

Table 7. Instrumental roles in instruments of group 1

Part 2

Part 2 marks the critical point of transfiguration which is the inevitable result of all of the transformations that we witnessed in part 1.

It is constructed in two sections:

1. Bars 146-166 - Peak of voice part, sustained notes of group 2 gradually decaying.
2. Bars 167-180 isolated descending voice, short violin echoes and solemn percussion hits.

Figure 9 shows a musical score excerpt for a moment of synchronization (bar 147). The score includes staves for Flute (Fl.), Trumpet (Tpt.), Violin (VI.), Voice (Vox.), Saxophones (Sax. 1, Sax. 2), Viola (Vcl.), Percussion (Perc. 1, Perc. 2), Clarinets (Clar. B. 1, Clar. B. 2), Contrabass (C. B.), Tubas (Tub. B., Tub. B.), Harp, and Percussion 3 (Perc. 3). The vocal line is highlighted with a yellow vertical bar. The score includes dynamic markings such as ff , pp , and ppp , and performance instructions like "Molto agitato" and "Tempo un po' più lento". The lyrics "de mou - de comme il s'est mort" are visible under the vocal staff.

Figure 9. Score excerpt of moment of synchronization (bar 147)

The point of transfiguration marks on the one hand the conclusion of the transformative procedures for group 2, and on the other the climax of the vocal part singing the concluding two lines of the poem: "S'est mort" (he died) - declaring finally the death of the angel in the past tense. It is a critical moment in the poem, but

also in the form of the music as, for this peak moment, almost the entire ensemble is finally synchronized with the voice. This is also the first time in the movement that we can hear unified harmony and also the widest spread chord (Figure 10) in the movement at bar 147 as seen in the score excerpt Figure 10.

The image shows a musical score excerpt for bar 147. It features five staves: Soprano saxophone, Clarinet, Voice "mort", Violin, and a combined staff for Bari saxophone/Cello, Contrabass Clarinet/Contrabass, and Bb tubas. The key signature has one sharp (F#) and the time signature is common time (C). The Soprano saxophone, Clarinet, and Voice parts play a half note chord consisting of G4, B4, and D5. The Violin part plays a half note chord consisting of G4, B4, and D5. The Bari saxophone/Cello, Contrabass Clarinet/Contrabass, and Bb tubas parts play a half note chord consisting of G2, B2, and D3. This creates a wide spread chord across the frequency spectrum.

Figure 10. Climax chord at bar 147

It's important to note that transfiguration is not composed of one clear cut as marked in Grisey's graph but it is the consequential conclusion of the previous process. The Bb drone from the closing spectrum of part 1 has transfigured to serve its inexorable function, becoming the homophonic sustained texture for the voice to finally declare the closing lines of the poem. After most of the instruments decay the voice is left alone with the bowed violin - a completely new timbre that has emerged from this transfiguration.

In conclusion, this entire movement can be seen as one complex methodical process that is gradually driven to its durational 'threshold' - the moment when the system concludes its operations. Reaching this critical moment exposes the consequences of the evolving sonic procedures in correspondence with the strategic placing of the dramatic last lines of Ricord Guez's poem.

The inner structure of the condensed poem has been dissected and embedded into so many musical and formal parameters of the composition that the music becomes a sonic representation of its various proportions, organized phonetics and dramatic structure. While this kind of methodology with text was new for Grisey, the profound connection between the structure of the poem and the composition brings forth a common aspect of his work, as Timothy Sullivan notes: “Grisey was consistently interested in the inner workings or underlying structures of any source material.”¹⁶

Transformation in the first movement, directs the material into one particular moment of synchronization and change of texture that ultimately exposes the totality of the overall form. In its most essential aspect, it is a temporal evolutionary process that shifts from a contrapuntal polyphonic texture into a concluding homophonic texture. This shift aligns the time of transfiguration in the poem with the time of formal transfiguration in the music. Grisey moves us through a transformative journey that associates timbral and spectral changes with the spiritual-poetic ‘revelation’ of the character singing but more so on the liminal state of human existence between birth and death.

¹⁶Sullivan, Timothy. PhD diss., ‘Gérard Grisey’s *Quatre chants pour franchir le seuil*: Spectral music on the threshold’, University of Michigan, 2008, 118.

Movement IV - D'après L'Épopée de Gilgamesh

The fourth movement lasts about fifteen minutes and is the longest in the cycle. Subtitled by Grisey as 'The Death of Humanity,' it is the most provocative in its metaphoric attempt to address the complete annihilation of the human species. The entire movement uses texts assembled by Grisey from the ancient *Epic of Gilgamesh*. The story depicts the quest of Gilgamesh, king of Mesopotamia, to find the secret for immortality. Conceptually Grisey uses texts he assembles from a paragraph¹⁷ taken from the fifth chapter of the *epic* entitled 'The Story of the Flood', as a framework for the entire movement structured in three main sections: The first part (bars 1-137) includes texts about the oceanic storm and flood leading to the second part which alludes to the calming of the sea (bars 138-160) and the third concluding part is segmented as a separated concluding piece (bars renumbered) that was referred to by Grisey as a '*Berceuse*' - a lullaby for the reawakening of civilization after its destruction.

The fourth movement begins as an extension from the preceding interlude entitled by Grisey as a 'False Interlude'. The role of the interlude so far in the work as a short, subtle noise segmentation is transformed in the 'False interlude' to serve as a bridge between the third and fourth movements: continuing with the unison pitched swells from the end of movement 3 (bars 62-71) and introducing material that will be

¹⁷ Original paragraph from the book: 'For six days and six nights the winds blew, torrent and tempest and flood overwhelmed the world, tempest and flood raged together like warring hosts. When the seventh day dawned the storm from the south subsided, the sea grew calm, the flood was stilled; I looked at the face of the world and there was silence, all mankind was turned to clay. The surface of the sea stretched as flat as a roof-top; I opened a hatch and the light fell on my face. Then I bowed low, I sat down and I wept, the tears streamed down my face, for on every side was the waste of water.' Sandars, N. K., ed. *The Epic of Gilgamesh*. New York: Penguin Classics, 1972.

developed in movement 4 with the addition of air swells by the winds, percussion tremolos and bass drum hits. This extension of the fourth movement from the third through the ‘False Interlude’ strengthens the totality of the cycle as a conceptual work and not just a ‘collection of songs’¹⁸. The following table summarizes the basic attributes of these three parts:

Part	1	2	3
Bars	1-137	138-160	1-56
Duration	~8.30	~2.15	~4.15
Orchestration	Full ensemble	Bowed strings voice	Full ensemble minus tubas
Tempo	40	40-67-40-53-67-80	~60
Meter	4/4	2/2	8/8,9/8,10/8,11/8
Sung text (Not exactly as in Grisey’s program notes)	La Mer Bourrasque, Pluies, battantes Ouragans, et déluge La mer Tempête déluge et hécatombe Simobilisa Apr’ès avoir distribueleurs coups au hasard comme une femme dans les douleurs comme une femme dans les douleurs Se calma La mer se calma Et s’imobilisa Je regardai alentour:	Je regardai alentour: Tous les hommes étaient Retransformés en argile: Finishes with a fermata “Tous Immobiles”	J’ouvris une fenêtre Et le jour tomba sur ma joue Je tombai immobile Je regardai Je regardai l’horizon de la mer, le monde...
English Translation	The sea, Squalls, Rains, Pouring Hurricanes, flood The sea, Storm, flood and carnage Symbolized after distributing several hits at random Like a woman in pain (x2) The sea calmed down And was still I looked around	I looked around All mankind was turned to clay. “All frozen”	I opened a window And the day fell on my cheek I fell motionless I watched the horizon over the sea, the world...

Table 8. Formal settings of text in movement IV

¹⁸ Interesting to note that in a recording of the work# with soprano and conductor Barabra Henigan’s the ‘False interlude’ and the first and second sections of the fourth movement are all one track on the album. Following that editing decision the berceuse can be seen as a separated 5th movement.

Listening to the three sections of movement 4 gives the experience of transitioning between three distinct and differentiated timbral environments. Where the first section is turbulent and features the entire ensemble, the second clears the palate with only sustained bowed strings which are heard as a group for the first time in the entire cycle. After this short austere section, the texturally heterophonic *Berceuse* is actually structured in harmonic stations with most of the ensemble, as a kind of a final pulsating, slow homophonic lullaby.

These three parts share textual, conceptual and formal relationships but also differ in orchestration, sonic content, tempo, meter, and sung text as described in Figure 18. My analysis focuses on the first part as it manifests an overall form that is structured through the temporal evolution towards a climactic peak that, like the first movement, demonstrates another substantial long-form approach to the method of transformation towards transfiguration.

Part 1 - Bars 1-137

While the entire cycle can be seen as a new compositional direction taken by Grisey, this first part is a particularly unusual blend of systematic procedures evolving in multiple layers with surprising twists and turns that nonetheless maintain a sense of cohesive timbral identity throughout. It also showcases Grisey in perhaps his most descriptive element as a composer, with music that vacillates at times between text painting and accompaniment for narration.

As the text in this movement relates specifically to the oceanic flood, the metaphor of the wave takes a heightened meaning and is used in various ways. It is

both a way for Grisey to paint with sounds the apocalyptic oceanic storm that Gilgamesh's text portrays, but also as a conceptual gestalt with which to formally structure the sonic material. I will demonstrate how the wave is both a trigger and also an inevitable shape that results in the procedural transformation of sonic material in each orchestral layer and in the form as a whole.

The wave element is tied with the concept of 'emergence' as it is a way for sounds to come and go through rising and descending slopes while maintaining a unique pacing throughout. These 'waves' become structured elements in the form - inevitable points of accumulation, evolution and emergence of sonic material. The wave can be seen in dynamic swells, in concepts of accumulation and decay, in ascending and descending figures, in longer composed contour shapes or any other various parameters that go through the contours of a wave.

Text painting is especially evident in the dominance of the text over the music when the voice first enters, announcing the big storm over the sea (table 8). Yet the sung text is structured as I will soon show, in a way that is heard in bursts through the sonic 'waves of the storm', almost as an after-effect of the 'gushing' layers. As Grisey explains about the movement in his program notes to *Chants*:

Music takes the place of the reading about the disaster when the voice is heard through the gaps in the din. Squalls of wind, driving rain, hurricane, flood,

tempest, slaughter: these elements give rise to a grand polyphony in which every layer follows its own trajectory in terms of time.¹⁹

I see this ‘trajectory in terms of time’ as the way various layers of material are evolving through procedures in particular durations directed towards critical temporal goals - the systematic consequence of transfiguration. By using the term ‘give rise to,’ Grisey alludes to the fact that the resulting polyphony is the cause of different durational rates of emergence for each layer. Time influences how these sonic elements are ordered and evolve throughout the movement. But above all the threshold point for transfiguration in bar 108, ultimately shapes the critical turning point in the global form.

These are the main layers that structure part 1 (bars 1-137) in the order of their appearance:

Layer	1	2	3	4	5
Instrumentation	Percussion	Winds, strings and percussion	Winds, strings and percussion	Two-tuba contour	Soprano voice
Gesture	Fluctuating swells, rapid bursts and stops	Sustained swells of noise or pitch	Rapid arpeggiated wave contours	Long tones ascending and descending.	Long tones, Arpeggiated melodic figures, fast frantic leaps
Bar of emergence	1	6,41	44	52	56

Table 9. Layers of sonic material in part 1 of movement IV.

The temporal trajectory for each layer manifests itself in the following ways:

¹⁹ Grisey, Gérard. “Quatre Chants Pour Franchir Le Seuil.” Program Notes for London Sinfonietta.

1. Emergence: The temporal points at which the layer enters and gradually evolves.
2. The stages of transformation in the layer.
3. The pacing of each layer - rate of appearance and its duration.
4. The moment of transfiguration - a radical change in the function and dynamism of the layer.

‘Emergence’ is a concept connected to temporal trajectory. It is the way that the temporality of a transformative procedure brings about new sonic elements that in turn begin their own transformative procedures. ‘Emergence’ becomes the consequence of temporal distance - the way the passing of time propels the material into stages of transfiguration. In the fourth movement the successional ‘emergence’ of sonic materials gradually congregates the structuring components of the rushing flood. The duration of transformations in each layer brings about the emergence of new layers.

Part 1 can be divided into two main sections:

- Section 1: bars 1 - 43 - Rumbling percussion swells and breathy winds accumulate to a concluding swell. The violin, harp and voice are omitted.
- Section 2: bars 44 - 136 - The full ensemble.

Section 1 - Bars 1-43

Unlike the previous movements, the fourth movement begins seamlessly as the prolongation of the ‘false interlude’ by continuing with the swells of percussion tremolos. These percussion swells are the first introduced layer and will serve as a

driving undercurrent for the entire movement, while more elements will be gradually added.

Transformation in section 1 occurs in two parallel orchestral groups:

1. Percussion - tremolos from each back quartet that will gradually become slower.
2. Winds - air swells that gradually accumulate in quantity (combined toward the end with cello and bass). The transformative procedures in each group consequently evolves to a climactic point where the two layers merge for an accumulative concluding swell in bars 41-43. In terms of 'emergence' I see four main elements:

1. The passing of time in the percussion brings forth the entrance of the winds at bar 6.
2. The passing of time and the gradual increase in the density of events in the transformation in both layers brings them to a concluding climax at bar 41.
3. The synchronized climax in bar 43 brings forth new sonic material - both timbral and gestural.
4. The emergence of pitch out of noise - The first recognized pitch in this section is of the low F in the contrabass in the final swell (bars 41-43). The emergence of this low F is of significant structural importance as we will soon see.

I will now go over each layer in this section and demonstrate the transformative procedures that temporally lead to this first momentary transfiguration at bars 41-43.

Transformation in the percussion: Bars 1-43

While the tempo of the movement is consistent at quarter = 40, Grisey once again (as in the first movement) uses a structural procedure to imply a gradual

transformation of speed, this time through the changing periodicity of the three percussion tremolo parts. The procedure follows a gradual change of speed (wave shape: up or down) marked by bass drum sforzando hits growing from one to three or four hits at the peak merge point in bar 41. These changes of speed are arrived at by tremolo gestures in varying divisions of the pulse for each player. In the following graph I trace this speed transformation throughout this section (bars 1-43) by rounding their subdivisions as per half note. (For example, 16 means 16 32nd notes in the time of a half note, 13 means thirteen 16th notes in the time of a half note, etc.):

Change of Speed in the Percussion: bars 1-43

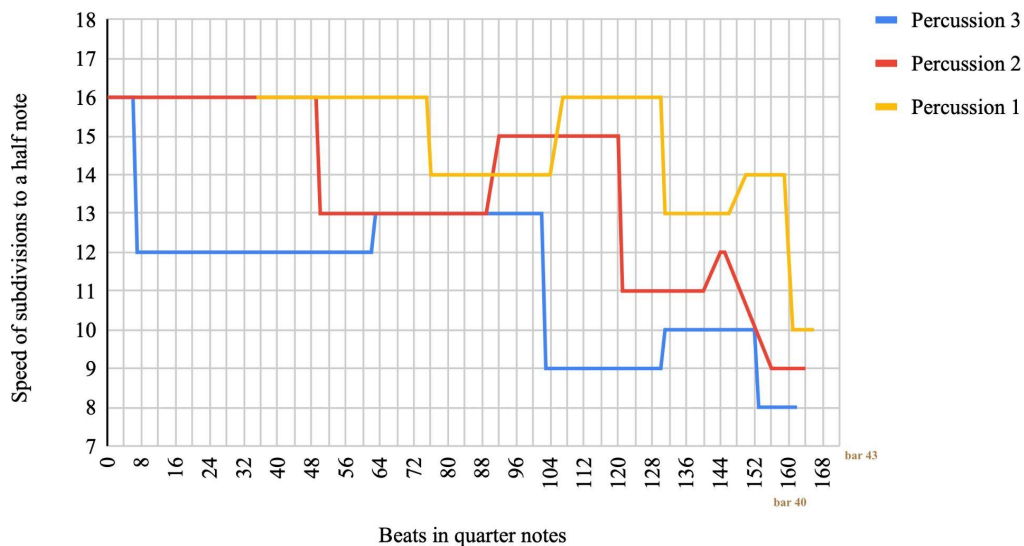


Figure 11. Mov. IV, Change of speed in Percussion (bars 1-43)

While the change in speeds moves up and down as in waves, the general direction is towards a slower subdivision of the pulse. Looking at the graph we can identify five speed changes in each percussion part. These speed changes are arranged canonically

as each voice follows the direction of the previous part and they all arrive at the final ratio of 8:9:10.

Transformation of air sounds bars 6-43

Six bars after the percussion tremolos, the second orchestral layer of synchronous air noise swells emerges with intermittent unison groups of winds - first duos, then trios until a final conglomerate swell (bars 40-43) that concludes part 1. When these breath sounds reach their inevitable goal of accumulating for the climactic swell at bar 41 they then shift from the air noise timbre to a percussive periodic double-tonguing diminuendo for the decaying part of the swell which creates a momentary blend of texture with the percussion layer, as can be seen in the following excerpt from the score:

The image displays a page of a musical score, numbered 93 in the bottom right corner. It features multiple staves for various instruments, including Flute (Fl.), Trumpet (Trp.), Saxophones (Sax. 1 and 2), Violin (Vic.), Percussion (Perc. 1, 2, and 3), Clarinets (Clar. 1 and 2), Bassoon (C. B.), and Tubas (Tab. 1 and 2). The score is written in a complex, rhythmic style with many notes and rests. There are several dynamic markings such as *pp*, *sfz*, and *ppp*, and some performance instructions like *(flaut)* and *slap*. The notation includes various rhythmic values and articulations, suggesting a highly textured and rhythmic passage.

Figure 12. Mov IV, Score excerpt of bars 41-43

Grisey structures the order of appearance of the breath-swell groups spatially so that the location of the sound source is moving around the stage. The similarity of gesture and timbre allows the audience to focus more on how these sounds move on stage and not necessarily on how different they are sonically or which instrument is generating them. Grisey builds their emergence in three stages of accumulation: 1. Eight intermittent duos (bars 6-31), 2. Two intermittent trios (bars 32-35), 3. An accumulation of three trios toward a tutti swell (bars 36-43). In each stage the intermittent proximity of each breath swell decreases until the final tutti swell brings all instruments together. Transformation here occurs in the change of instrumentation and thus spatial location, transformation of density as the groups get bigger and also in the proximity of these sounds as they ultimately merge. The following table demonstrates the order of instrumental combinations between bars 6-41:

Stage 1 Duos: bars 6-31							
2 clar	2 tuba	2 sax	2 clar	2 tuba	2 sax	2 clar	2 tuba
Stage 2 Trios: bars 32-35							
2 clar trumpet				2 sax flute			
Stage 3 Accumulative swell : bars 36-41							
2 tuba contrabass on F1			2 clar cello			2 sax flute, trumpet (growl)	

Table 10. Order of instrumental combinations part 1, movement IV.

Final Accumulative Swell

As we can see in Figure 12, both winds and percussion are moving towards forming one concluding, climactic swell (at the end of section 1). This is a momentary transfiguration that will conclude section 1 at bar 43 and begin the eruption of section 2 in bar 44. I see this climax as a transfiguration for the following reasons:

1. The climax is a collective point of arrival following an evolving transformative procedure as demonstrated in the percussion tremolos and air sounds in the winds.
2. It is a point of timbral fusion: the air and percussion timbres are combined into a distinct new texture. It is a moment when we focus on the global sound of the ensemble and not on the separated timbral layers.
3. New timbres emerge in the swell: specifically the double tonguing in the winds and the low F in the bass (which has a formal significance as we will soon see).
4. It is a significant point in the overall form of the part: the contrabass' arco F1 that begins at bar 36 will delineate section 2 (bars 44-137), as it will ignite the next sonic procedure and will also conclude section 2 and become the drone for part 2 of the movement. As such, the contrabass F1 marks a point of articulation in the higher architectural structure of the form that delineates part 2 (bars 44-137) through these strategic points of transfiguration: this first local

transfiguration at bars 41-43 and later, concluding the final transfiguration (bars 135-137). (See Figure 13)

5. The following pitched timbral material section 2 will be contrasting to the overall non pitched timbre of section 1.

Section 2: Bars 44-137

The first movement of the cycle exposed a singular transformation integrated to a singular transfiguration. In contrast, the material in part 1 (bars 1-137) of the fourth movement unfolds in stages that gradually evolve with the goal of reaching successive points of collective synchronization that structure the entire form. The sounds of part 1, section 1 (bars 1-43) that metaphorically announce the ‘rumbling of the earth’ and ‘rising winds’ begin and ignite the impending ‘storm’ (as the sung text will announce). The ensemble’s climactic swell at the end of section 1 (bars 41-43) triggers the emergence of section 2 (bars 44-137) which I will refer to as ‘the flood’.

The concluding swell of section 1 marks an initial transfiguration from noise towards the emergence of pitch, starting in bar 44 with an F1 in the harp, contrabass and tuba. The structure of the ‘flood’ (bars 44-137) is bookended by this low F1 as it both ignites the eruption of pitched material in bar 44 and becomes the inevitable lowest pitch of the collective descent at bar 136. The F1 also serves as the drone for part 2 (bars 138-160).

The ultimate culminating process of transfiguration in ‘the flood’ (bars 44-137) and also for the entire form of part 1 (bars 1-137) begins at bar 108. At this point almost the entire ensemble finally converges with a series of homophonic

chords and then gradually descends to silence as illustrated in Figure 13. Instead of moving the material to one point of synchronicity in section 2, Grisey maximizes the metaphor of the wave with its rising and falling attributes and uses it to build tension in the first part of section 2 (bars 56-108) by structuring preliminary ‘attempts’ at synchronization in bars 93 and 100 (Figure 13).

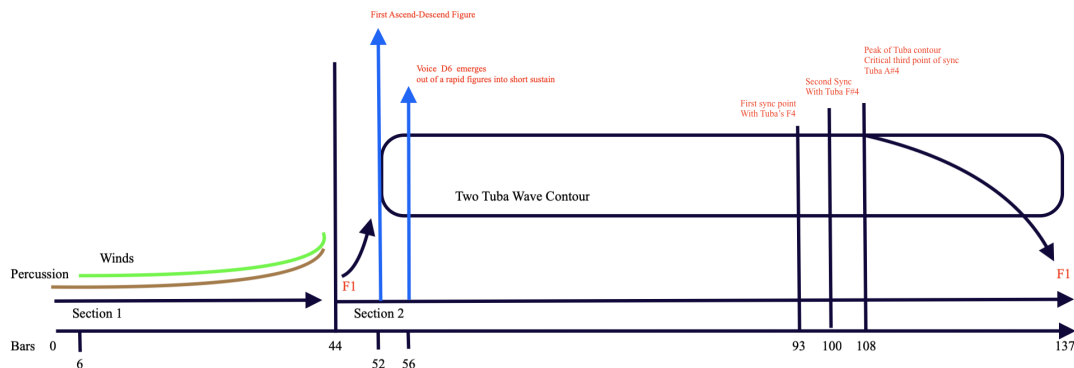


Figure 13. Mov IV, Graph of Part 1

The duration from bar 44 towards the ultimate climax in bar 108 is structured around the evolution and emergence of three significant sonic layers:

1. Rapid wave shape figures (ascending \diamond descending) that emerge in bar 44 and evolve to trigger sustained swells and synchronized chords.
2. The contour of the two-tuba part from bars 52-137.
3. The structuring of the voice part from bar 56 to 137.

The evolution of waves, bars 44-56

In this first stage of sonic emergence in the ‘flood’ Grisey exposes the creation of the rapid wave figures. The rapid wave gestures emerge as the consequence of the concluding swell of section 1.

Beginning on the down-beat of bar 44 with an F1, rapidly rising arpeggiated figures gradually ascend in pitch, register, duration and instrumental combination that evolve into 'rapid waves' at bar 52. An eruption of rapid arpeggiated figures rises first out of the F1 in the harp, bass, tuba, and bass clarinet, accumulates in instrumental combination and gradually ascends in pitch register. The harp will continue to punctuate each appearance of these rapid waves throughout the section.

Each critical evolution of these rising figures brings about the emergence of other formally significant layers. As these ascending gestures descend for the first time (like a wave shape) at bar 52, it triggers the entrance of the two-tuba contour that will soon be discussed for its formal significance. Four bars later (at bar 56), as the rapid wave gestures establish their wave shapes and then continue to a sustained swell (for the first time in this section) it triggers the emergence of the voice with an extremely high pitch (D6).

So far we have only been introduced to the potency of these gestures of rising wave figures to trigger sonic events. From bar 56 and on, their functionality extends and pacing becomes more intermittent. Grisey at first uses them to partition other elements like the growing swells and voice parts and (later on) as a trigger for the synchronization of chords. Once all sonic layers have emerged they function as components of the 'turbulent flood' and serve a higher structural framework: erupting waves of orchestral layers directed along the two tuba's contour towards the climax at bar 108.

Tuba wave contour

The section between bars 52-137 is formally structured by the transformation in the two tuba's melodic contour (Figure 14) as a scaffolding that formally outlines both duration, points of transfiguration, climax and gradual decay for the entire segment.²⁰ The arrival of the last tuba note on the final F1 is dovetailed by the contrabass to begin the drone of the next section (which is reserved for the bowed strings).

While Grisey weaves the orchestral layers of alternating swells of pitched chords, unpitched swells, percussive tremolos, and fast wave figures, it is the timbre of the tuba that consistently persists in its gradual ascension all the way to the climactic A#4 (bar 108) in its highest register and only then descends gradually to F1 (bar 135) in its lowest register.

The transformations in the contour of the two-tuba part also temporally outlines a clear wave shape - another formal conceptual wave metaphor that governs this section, as can be seen in the following piano roll representation:

²⁰ This is similar to the climax of the first movement structured when the voice ascended to its highest note. See Figure 9.

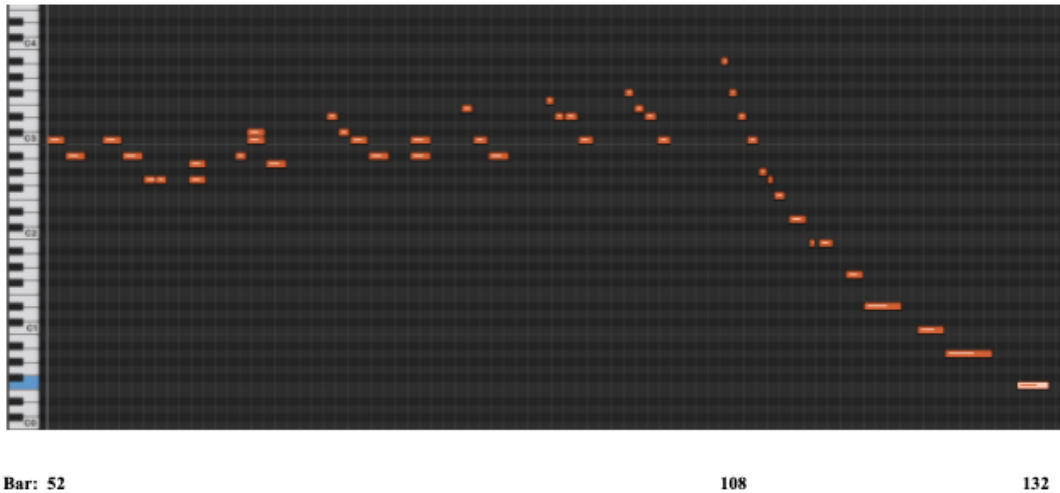


Figure 14. Piano roll representation of tuba part: bars 52-132

The piano roll shows clearly the stages of gradual ascent, each time followed by a slight momentary descent, where the pitch material is transformed upwards, yet at the point of climax the trajectory changes to a systematic descent towards the lowest F1.

The tubas' A#4 (in the graph A#3) peak at bar 108 coincides with the ultimate climax of the section: a series of six synchronous tutti loud high chords as shown in the following score excerpt (Figure 15). Unlike the first movement when the climax reached one clear point of synchronization, here we see a series of synchronized attempts, yet this is the ultimate moment of this section when most of the ensemble is completely synchronized for these homophonic chords. The last of these chords is then sustained asynchronously and the instruments including the tubas (as shown)

gradually descend in register.

Figure 15. Score excerpt of climactic synchronization: bars 108-111.

After the tubas reach their A#4 peak they systematically descend in intervals of thirds from A#4 to F1. In addition, each note of the descent is incrementally longer in duration to form the composed ritardando shown in the following table:

5/8	11/16	6/8	4/4	5/4	11/8	7/4	12/4	13/8	18/4	13/4	19/4	13/4
-----	-------	-----	-----	-----	------	-----	------	------	------	------	------	------

Table 11. Composed Ritardando in Movement 4 bars 108-111.

This systematic transformation of pitch and duration, even at this final stage, has been triggered by the ongoing transfigurations triggered by the previous ongoing transformation in the tuba’s ascent. Transfiguration as the crossing of the threshold (for the tuba - reaching its high note at a particular point in time) changes the systematic function and purpose of the sonic material: once the two tubas completed

their ascent, signaling the climax, their function shifts to signal the closing of the section with descending tones directed towards the final low note that concludes this part- the F1.

The voice in the waves

As mentioned before, the voice enters at the end of bar 55 in the extremely high D6 note, shouting as if half drowning: ‘La Mer’. For the rest of part 1 the voice layer is not continuous but emerges in bursts that can offer another structural aspect for this move towards the climax. The voice layer alternates between two contrasting types of material: 1.A’ type of material: long tones that sometimes evolve to arpeggios, 2.B’ type of material: Frantic fast descending leaps that in each appearance change in quantity and in speed.

	Bars	Type	Text
Stage 1	56-71	A ₁	La Mer
Stage 2	72-83	B ₁	Bourrasque, Pluies, battantes Ouragans, et déluge
		A ₂	La mer
State 3	84-95	B ₂	Tempête déluge et hécatombe
		A ₃	S’immobilisa
State 4	96-107	B ₃	Après avoir distribueleurs coups au hasard comme une femme dans les douleurs comme une femme dans les douleurs
		A ₄	Se calma

Table 12. Stages of emergence in bars 56-71, movement IV.

I identify four main stages for overall sonic activity between bars 56-108, mostly organized in four-bar groups. These stages are structurally marked by the emerging material and content of the sung text as illustrated in table 12.

The first two A's are a kind of initial declaration of the metaphorical location at the sea, with the descending pitches of the two vowels making 'La Mer' as can be seen in the pitch reduction of the A sections in Figure 16:

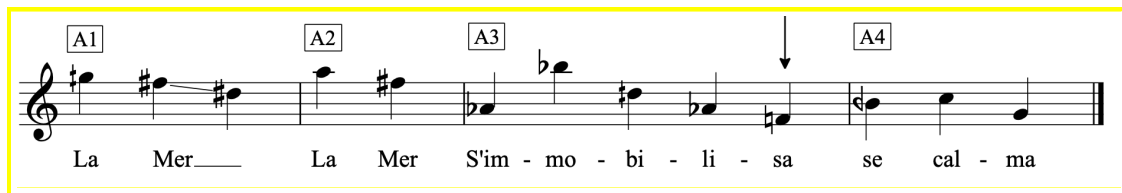


Figure 16. Voice pitch reduction of A sections

The alternations between the A and B types of material in the voice create a sense of expectation. In the third A type part starting in bar 87 the last note of the voice converges with the tuba part at the F4 along with the winds, harp and crotales and we reach the first of three synchronization attempts at bar 93 (Figure 13). This depiction of the word '*s'immobilisa*' (frozen) begins this growing tension towards a yearning for stasis in these 'troubled waters'. In the fourth A type starting in 104, the singer seems to declare the end of the storm singing: '*se calma*' and only then are we surprised with the final synchronized climax in bar 108.

The B type parts change gradually in pitch as can be seen in the following pitch reduction in Figure 17. Although the material is constructed of wide rapidly arpeggiated leaps it is actually based on descending scales.



Figure 17. Voice pitch reduction of B sections

In terms of pitch transformation we can see the following:

1. Number of pitches increases: from 9 to 11 to 12.
2. In B₂ pitches are added inside the register of B₁ yet in B₃ the range descends and decreases.
3. The emphasis on the low F₄ pitch as an arrival point is being extended in B₃ to Eb₄. The pitch-class F (as previously discussed), is a structurally important pitch in the layout of the entire section.

In summation, between bars 56-108 the voice is structured as A₁B₁A₂B₂A₃B₃A₄ as also can be seen in the following piano roll representation of the vocal contour.

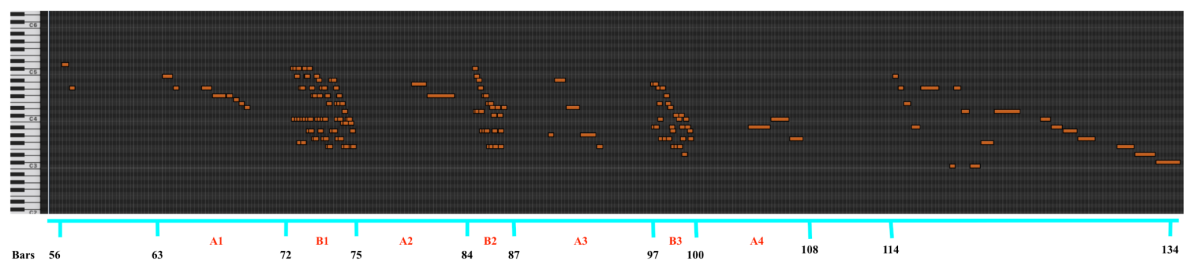


Figure 18. Piano roll representation of the voice: bars 56-134

The expectation is for it to lead to either another frantic B or a final decay, but Grisey surprises us when, instead (at bar 108), he structures the final climax with the series of synchronous chords (Figure 15).

After the climax in bar 108, the voice emerges again at bar 114 with four last phrases concluding with material and content that brings closure to the entire part 1. The first two phrases (similar to previous A sections) repeat the previous text of '*La mer, se calma, s'immobilisa*', with two phrases of wide arpeggiated leaps.

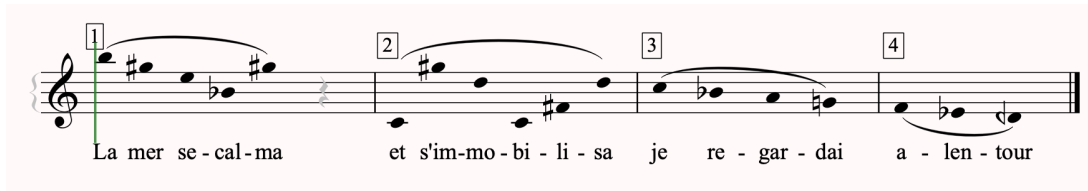


Figure 19. Voice pitch reduction: bars 114-134

Lastly, the part concludes with the text '*Je regardai alentour*' (I looked around) in a descending scale that also serves as preparation for part 2 (bars 138-160) which uses similar melodic material in the voice and strings.

The overall changes in the voice's role throughout part 1 of movement IV are exposed through the ongoing wavering changes in the instrumental material as if the singing character were in the midst of a sonic 'storm', bursting out of the water each time for a glimpse into the horizon until finally rising through the static homophonic 'ocean' looking out at the stillness of the world.

While the fourth movement is more complex in its layout - Grisey converges elements of text painting with a formal layout that demonstrate the creation of the sonic material - it still follows in its essence a similar concept of temporal procedures that reach their prescribed exalted states towards transfiguration. Transformation is used to build up stages of emergence that ultimately reach a merging point that leads to a final decay.

The temporal journey described in Gilgamesh's text is outlined in the temporal journey of the composition's form. The flood in the original epic signifies one of the last hurdles on the unsuccessful journey of Gilgamesh to find eternal life. Instead he finds that leaving great works of art is key to immortality for mortals.

Conclusion

This paper analyzed the main parts of the opening and closing movements of Grisey's *Chants* in an effort to demonstrate the structuring of these musical forms through a methodology that constructs processes of transformation that lead to moments of substantial transfiguration. Rather than applying a chain of cyclical or episodic sections, Grisey attempts a large form approach that from its start aims at a critical, global and inevitable consequence.

If we compare the fourth movement to the first movement, we can observe that both project a process that shifts from a polyphonic texture towards homophony. In both movements we experience the temporal duration of multiple layers that reach a critical point in the form when all these voices finally merge and become one particular harmonic stasis.

In both movements the concepts of transformation and transfiguration dictate the structure and complete form of the movement. There is a structured directionality that pushes forward material and outlines a shape that marks a substantial part for each movement - in the first it is the contour of the voice, in the fourth it is contour of

the tuba part. This 'formal contour' reaches a peak after which the entire form moves towards a communal decline.

Both movements are laid out in three distinct parts plus a postlude. In addition the timbre of the bowed strings is a critical new timbre that is formally evident after the process of transfiguration: In the first movement it is those melodic violin phrases that echo the voice in the end while in the fourth movement it is much more prominent with the three bowed strings accompanying the voice.

In a strange coincidence that borders on the mystical, Grisey died a few months after completing *Chants*. It became his last published composition. Unlike any of his previous work, it might have marked a new era in his creative output.²¹ Perhaps an era in which poetry and compositional processes are conceptually woven together in original and evocative ways that speak to the conceptual relationships between sound, poetry and musical form.

²¹ After Grisey completed *Chants* he began working on a new composition for voice and Contrabass based on a short poem by Becket but the work was left incomplete due to his untimely death.

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