



# University of HUDDERSFIELD

## University of Huddersfield Repository

Maestri, Eric

Thematic Reductions: Material, developments and categories

### Original Citation

Maestri, Eric (2014) Thematic Reductions: Material, developments and categories. Doctoral thesis, University of Huddersfield.

This version is available at <http://eprints.hud.ac.uk/id/eprint/28320/>

The University Repository is a digital collection of the research output of the University, available on Open Access. Copyright and Moral Rights for the items on this site are retained by the individual author and/or other copyright owners. Users may access full items free of charge; copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational or not-for-profit purposes without prior permission or charge, provided:

- The authors, title and full bibliographic details is credited in any copy;
- A hyperlink and/or URL is included for the original metadata page; and
- The content is not changed in any way.

For more information, including our policy and submission procedure, please contact the Repository Team at: [E.mailbox@hud.ac.uk](mailto:E.mailbox@hud.ac.uk).

<http://eprints.hud.ac.uk/>

# THEMATIC REDUCTIONS

Material, developments and categories

Eric Maestri

A portfolio of compositions and commentary  
submitted to the University of Huddersfield in partial fulfilment  
of the requirements for the degree of Doctor of Philosophy (PhD)

September 2014

## **Copyright Statement**

1. The author of this thesis (including any appendices and/or schedules to this thesis) owns any copyright in it (the “Copyright”) and s/he has given The University of Huddersfield the right to use such Copyright for any administrative, promotional, educational and/or teaching purposes.
2. Copies of this thesis, either in full or in extracts, may be made only in accordance with the regulations of the University Library. Details of these regulations may be obtained from the Librarian. This page must form part of any such copies made.
3. The ownership of any patents, designs, trade marks and any and all other intellectual property rights except for the Copyright (the “Intellectual Property Rights”) and any reproductions of copyright works, for example graphs and tables (“Reproductions”), which may be described in this thesis, may not be owned by the author and may be owned by third parties. Such Intellectual Property Rights and Reproductions cannot and must not be made available for use without the prior written permission of the owner(s) of the relevant Intellectual Property Rights and/or Reproductions.

## **Acknowledgments**

I would like to thank my PhD. supervisor, Dr. Aaron Cassidy, for his patience and ability to adapt his advice. The work on this thesis obliged me to formulate my implicit internal perception, projecting it in the external world. I am happy about that. Thank you.

I want to thank Prof. Monty Adkins and Prof. Pierre Alexander Tremblay, Dr. Scott Mclaughlin and Dr. Alex Harker, whose convolution VST was very important for the realization of my piece *Visioni*.

I will be forever thankful to Adam Starkie, Gerardo Gozzi and Gaja for their friendship and help.

# LIST OF CONTENTS

Portfolio and presentation of compositions.....	6
Introduction.....	11
1. The Material.....	15
1.1. Thematic reduction .....	15
1.2. Developments.....	31
1.2. Developments.....	31
1.2.1. Injection: repetition and suspending directionalities.....	31
1.2.2. Projection: repetitive directionalities.....	39
2. Categories.....	51
2.1. Connections functions.....	56
2.1.1. Un-pressured.....	57
2.1.1.1. Fragmentation.....	57
2.1.1.1.1. Fragmentation process in past music literature.....	58
2.1.1.1.2. Vertical Fragmentation.....	62
2.1.1.1.3. Horizontal Fragmentation.....	68
2.1.1.1.3.1. Echo as development.....	74
2.1.1.2. Fragmentation processes in <i>Le Cose</i> .....	76
2.2. Pressured.....	81
2.2.1. Horizontal compression.....	82
3. Conclusion.....	93
Analytical Index.....	97
Bibliography.....	100

## **Abstract**

In my music I try to control the chaos inside and outside me. I try to write in the freest way and to realize it in the most consequential manner. Hence, I try to find a balance between the material and its implicit existential possibilities, focusing on the clarity of its elements and the variety of its possible complex temporal evolutions. In this sense, my pieces could be reduced, in most cases, to a set of contrasting original elements that are embedded in the thematic character of the structure of the material. However the theme is at the same time the starting and the final point of the composition, a journey in the discovery of the poetical and formal proprieties of the musical idea. The theme is the first and the last element. I reduce the musical material to a limited number of elements that are developed following a limited number of more abstract categories that allow a control of musical complexity. This double bond through an opposition with the material reveals my abstract compositional categories. This makes the process of composition a process of dialectic personal awareness of my subjective limits reflected through the manipulation of the musical material. In this sense, my music results from an intimate and subjective confrontation with the realization of the musical idea. For this reason the notion of the thematic idea is central. It resumes the pure temporal character of the musical idea and refers to the semantic element of linear profiles that I craft in my compositions. The following analysis highlights the dialectics between the material and the abstract categories that derive from it. In the conclusion I explain my compositional position from the perspective offered by this analysis.

## **Portfolio and presentation of compositions**

**Celestografia (2010-12) 11'**

**for soprano and string quartet**

First performance, Torino, Unione Musicale, April 11<sup>th</sup> 2012, Valentina Coladonato, soprano, Prometeo Quartet, Commissioned by Fondazione Spinola-Banna per l'arte.

Publisher: Edizioni Suvini Zerboni, Milano

“Celestografia has distant origins. It took me years to understand that the basis of the music I wanted to create was in the writing itself; writing in the sense of tracing sound in a visible form, as a possibility for the memory and as an impossibility of the single origin of the creative act. I have always dreamed of a drama of musical writing, slowing the composing down almost to a standstill. A vision of the essence of musical content. I have tried to achieve this in some of my more recent pieces. However, when I was almost completely unaware of this, I actually achieved it, ten years ago. Lately I have composed a lot trying to take the compositional gesture to its extremes, trying to think of music not from the exterior, but from within. In this sense I owe many discoveries to the ensemble L'Imaginaire from Strasbourg. This is how this piece was born, as my own drama of writing a form, as a constant refusal of musical automatisms, as a search for a logic that is only and exclusively musical, beyond words, beyond memory and rhetoric, which I try to capture by taking it by surprise. Celestografia takes its title from a photographic practice from the end of the 19<sup>th</sup> Century used by August Strindberg. It consists in letting a metal iodated plate become impressed in the daylight. The pattern that is created is a completely abstract figure that was interpreted as the landscape of the soul. For me, it represents the impossibility to distinguish between inside and outside, between the sensations of my body and the existence of other bodies. These are the sensations that are translated into the emotion of the form and into the psychological force of music, that points to a theatre that perhaps will one day exist”.

**Ritratto Voce (2011) 7'**

**for mezzosoprano**

First Performance, Huddersfield, CERENEM, November 28<sup>th</sup> 2011, Lore Lixemberg, mezzosoprano

Publisher: Edizioni Suvini Zerboni, Milano

“ How can the voice be portrayed? In this piece I try to give a personal light

to the voice. The text, by Spinoza, is the starting point for the division and definition of the values of the notes and the rests. The text and the particular type of emission of the voice are intended to indicate the possibility for music to reveal itself and disclose something. A lilting rhythm accompanies the declamation of the text in an attempt to construct the form from within”.

**Autoritratto (2011-12) 10'**

**for string trio and piano**

First Performance, Copenhagen, Glyptoteket Museum, August 8<sup>th</sup> 2012, Ensemble Open  
End.

Publisher: Edizioni Suvini Zerboni, Milano

“Making a self-portrait means being ruthless and also going against oneself. Formal construction, scales, showy virtuosity and speed lie at the heart of this selfportrait that presents my idiosyncrasies and forces me to observe them without mercy. A sort of rondo with variations occupies the main part of the piece. The rondo stops and so does the spirit of the piece, which returns to the noise and emptiness that seem to underpin some of the aesthetic choices that I often make for myself. Music is also this, letting oneself go and impressing the audience with speed, which is the vortex of perception”.

**Le Cose (2011-12) 19'**

**for solo violin** CD Recording, Saori Furukama, violin

Publisher: Edizioni Suvini Zerboni, Milano

“This solo violin piece presents a kind of reflection on the objectivity of the musical material. The material, posed in time, could not be composed in time. It is my first attempt, realised, to present and represent musical objects”.

**Endeared II (2012) 9'**

**for soprano, mezzosoprano and cimbalom**

First Performance, St. Pierre-le-Jeune, Strasbourg, May 19<sup>th</sup> 2012, Ensemble La Dolce Maniera, commissioned by La Dolce Maniera

Publisher: Edizioni Suvini Zerboni, Milano

“The perfect listening position is where the musical object and the listener are observed simultaneously. It is a question of highlighting this indissoluble

relation between the elements. Endearred means both “dear” and “cared for”. The term comes from a poem by John Keats, “Ode on a Grecian Urn”. The musicians depicted on the urn performs music whose true magic lies in the fact that it cannot be heard, leaving to our imagination what it might be – the most beautiful thing, that does not belong to the tangible world. The text is an elaboration of what remains of a madrigal by Monteverdi. The idea is that music is basically made up of audible and inaudible things that coexist, from the emotion until the writing. In this sense the writing is strictly and rigorously thematic, where the concept of theme implies not only a perceivable unit but also a semantic one, and colours the whole piece. It is a study of the psychological colour of sound and the interval, broken into transitions and developments of the idea, not in an abstract manner, but also trying to develop its meaning”.

**Visioni (2012-13) 25'**

**for ensemble and electronics**

Strasbourg, Hall des Chars, June 8<sup>th</sup> 2012, Ensemble L'Imaginaire, Commissioned by Hall des Chars/Ensemble L'Imaginaire. First performance of the new version (project conceived and produced by Eric Maestri with the first part composed by Daniele Ghisi), 5<sup>th</sup> October 2013, Ensemble L'Imaginaire, 57<sup>th</sup> Venice Biennale, Venice.

Publisher: Edizioni Suvini Zerboni, Milano

“The question we urge you to ask yourselves is the following: what if what we see producing sound was fake, what if it looks like the source, but wasn't? This experience, which is common to all of us when we rely on technology, the separation of sound from its source, is a representation of the mystery of listening. Visioni is a video and audio piece, based on the relationship and on the mystery of this alchemy. We will tell the story of the transition from an idea of source to the actual source itself: the transition from an object that hypothetically makes a sound to instruments that play within the cultural context of our history. Thus Visioni illustrates the transition from absence to presence. The objects are initially inanimate, then they come alive. The game of representing sound, as an invisible element that is then reified evokes an illusion, the relationship with technology and machines. The perturbing relationship of vision and illusion on which we base our perceptive relationship with what we experience.”

**Due Parole (Endeared III) (2012) 9'**

**for vocal quartet and string quartet**

First Performance, Fondation Royaumont, Voix Nouvelles, September 22<sup>nd</sup> 2012, Atelier

Vocale de Royaumont/Les Cris de Paris, Diotima Quartet, G. Jourdain, conductor.

Publisher: Edizioni Suvini Zerboni, Milano

“Due parole is based on the association of ideas. A pair of words leads to others and the composition of the text is parallel to the composition of the music, to the point of almost becoming the same thing. The piece presents masses and contrasts based on harmonies created by the distortion, through frequency modulation, of a handful of pitches that successive counterpoints form into outlines. In a nutshell, the construction of the piece is related to pure form: the sound source, the dynamic violence and the harmonic construction bring me increasingly closer to the world of Edgard Varèse”.

**La Visione delle Cose (2012) 25'**

**for ensemble and electronics**

First Performance, Without Cage Minifest de Musique de Demain, Strasbourg, October 19<sup>th</sup>

2012, Ensemble Vortex, Commissioned by Ensemble Vortex and dedicated to Francisco

Huguet.

Publisher: Edizioni Suvini Zerboni, Milano

“Setting oneself in front of a musical object and drying it up, placing it in time and space is the main idea of this piece. The writing seen as objectification and investigation of the psychological resonances that the constitutive elements of music provoke in the association of ideas. The basic logic of this new piece consists in taking the instruments as objects; imposing the music before composing it. For the first time the electronics have no anonymous source, as happens in most of electronic pieces - where the categories of enrichment of the instrumental material or acoustic counterpoint to the score prevails. In this case the electronics feature as an instrument in its own right. Since the electronic sound is defective, I try to eliminate this defect by balancing the acoustic aspect and the instrumental one. In this sense a solution can be found, I believe, in the discourse started by Nono in *Soferte onde serene* and then continued by Marco Stroppa and his development of the *timée* - a loudspeaker that projects the sound spherically and localises the source. *La visione delle cose* is a piece for this strange new object, similar to an instrument without being one, which encloses the electronics in a box. This step gives rise to other aspects, a modular loudspeaker divided between magnet and membrane. In this way

La visione delle cose experiments with this new approach, achieved only after many experiences in electronic diffusion and composition”.

**Tre Case (2013) 10'**

**for clarinet, piano and string trio**

First Performance, Venice Biennale, Venice, Italy, October 11<sup>th</sup> 2013, Ensemble l'Instant

Donné, Commissioned by Radio France

Publisher: Edizioni Suvini Zerboni, Milano

“Tre Case is a title intended to evoke a certain simplicity in the vision of the elements that make up the musical discourse, its grammar and in particular its syntax. If we imagine seeing three houses in the distance in the countryside, we see three profiles and three objects that, with any real, premeditated reason, create between them a necessity for the simple fact of being there and not being elsewhere. This necessity/non-necessity, this chance that with the passing of time created the necessity, is a strong factor in my creative process, perhaps its main fulcrum. And so the houses are things dispersed within a vast territory that by pure chance, unconsciously, defines a story. Colloquially "tre case" can also mean "some houses", we do not know exactly how many, but not many, as if the landscape were in our memory but not completely clear and distinct”.

**Four Walls (2013) 11'**

**for two pianos and two percussionists**

First Performance, Berlin Konzerthaus, Berlin, Germany, October 26<sup>th</sup> 2013, Ensemble

BerlinPianoPercussion Commissioned by BPP.

Publisher: Edizioni Suvini Zerboni, Milano

“Four Walls is notes set side by side. The timbres are sought out and varied in every bar, like consecutive cells. Setting one note next to the other, as can be done with smooth surfaces, walls or pieces of wall. The association is hypothetical. I now work through associated essences and different speeds. Essences that are purely sonic or emotive, enriched sound. The essence of the piano, of electronic sound, of power, the essence of dynamics; the essence of forte and of piano. One of the most difficult, and dangerous, things is to work with the essences of the musical emotions. The essence of sadness, of emotional impact, to transform inert material into volatile material that goes beyond the instantaneous perception and becomes emotion”.

## Introduction

During the analysis of my works I have become aware of the importance of the notion of limits in my music. For instance, I try to limit invention with the strictness of the composed object. In this manner I have immediate control of each passage of the piece. The relationship between the clarity of the musical object and the possibilities of free creativity is fundamental as it allows awareness of musical choice. Thus this relationship gives the key to go through the existential chaos that grounds my creative choices

In my pieces I need a precise evolution of envelopes, a precise sound projection and the possibility to work on a wide range of dynamics. I seek a strong coherence in the succession of musical events, which must be at the same time clear and mysterious. I point firstly to the unity of the piece as the most important element, which influences the local compositional strategies as a far horizon, clear, but extremely far. The colours, figures and forms are the means to reach this fixed horizon. The composition is considered as a free route to the piece; the discovery of the constraints of the piece implies choices in the material developments that obliges a selection of a reduced material that derives the majority of the composed elements. In this manner my intuitive research finds a resistance in the construction that illuminates the implicit order of the piece in the path of the composition.

To preserve this anarchic approach I need to fix a clear starting point that can support the continuous stream of invention that I require to compose. Fixing the horizon, I try to compose the musical means that allow me to reach it in the simplest way.

My compositions begin with the definition of a thematic element. I strictly develop the material in order to fragment or recompose it, discovering its

implicit injections and projections. In my compositional procedures I analyse the relationship between the intuition of the compositional horizon and the intuition of the material that constitutes it. The radical subjective choice of both the beginning and the end is balanced by the objective analysis that the composition involves. The notion of theme informs the basic material. In my point of view, it allows the biggest extemporaneous inventive analysis, thanks to the simplicity of the manipulated matter.<sup>1</sup> This material is freely composed, stretching durations, filling pauses, deviating from the starting material rhapsodically, constructing the harmonic context from the pitch relationship inside the theme. Variations and manipulations are based on processes of focusing and defocusing of the theme. This procedure defines recurrences in the treatment of the materials that ground my compositional categories.

The aim of this text is to highlight the link between the use of themes and the freedom of their treatment, focusing on the abstract categories that guide this compositional procedure. My objective is to reveal the relationship between the material and the compositional strategies. In this sense the categories are the conceptual material of the composition. While the

---

<sup>1</sup> This characteristic of the notion of theme is frequently discussed and highlighted in the analysis of the romantic period, but still defines an analytical concept in contemporary music. Boulez discussed the notion of theme in his lessons at Collège de France, *Leçons de musique (Points de repères, III)*, Christian Bourgois, 2005, Paris. The notion of proliferation and the notion of theme are connected under the interpretation of the second viennese School. However, the utilisation of thematic ideas, or perceptually and structurally prominent elements return to be important among postspectral composers. Philippe Hurel indicated in Gérard Grisey's last pieces a new possible path based on notions of repetition, thematic hierarchy and harmonic construction. In Claude Vivier also the melodic and harmonic relationship is based on a clear hierarchy, derived from the compositions of the second Stockhausen (i.e. *Inori, Sirius*); in Fausto Romitelli last pieces the importance of recognisable elements that inform the formal construction via repetitions et reprises is clear. i.e. pieces like *Amok Koma, Professor Bad Trip Lesson II and III, Domenica alla periferia dell'impero II*.

sounding and thematic material is the perceptive starting point the categories are the conceptual starting point. In my hypothesis they emerge consequentially from the concrete sound material, extracting and reducing *qualia*<sup>2</sup> of musical elements that are the base of the abstract construction that I aim to highlight. This description allows to reveal the compositional choices under the light of the elements of the thematic material.<sup>3</sup> The reduced thematic material has the effect of multiplying the possibilities of the nuances in the manipulations that are based on simple abstract operational categories. I will try to outline the characteristics of the raw material, focusing then on the categories that guide its manipulation. I will describe my compositions from the “outside”, defining links of which I am aware but that are not, for the moment, inside the perimeter of my musical consciousness.

In the first chapter I highlight the structures of the themes, focusing on their intervallic futures. I show how my pieces refer to a unique structural element. For this reason my analysis starts from the notion of theme.<sup>4</sup>

---

<sup>2</sup> *Qualia* are emergent characteristics of an object. Goodman defines *qualia* as sensible quality presented by the perceived object (Goodman, 1951). The same notion is used by Patton, 2007: 123, to frame his spectromorphological notation. From this perspective *qualia* and spectromorphology, as analysed before, are correlated.

<sup>3</sup> The categories emerge themselves from the compositional process. This circularity of the compositional process guides the musical dynamic of the raw material and the consequential abstract strategies that derive from its manipulation. In my music I try to find a balance between the creative process with the understanding of the process itself.

<sup>4</sup> This approach is inspired by Webern's thematic construction that is discussed in: Boulez, P., *Leçons de musique (Points de repères, III)*, Christian Bourgois, Paris, 2005, pp. 228-229. In Webern the theme acquired a strong structural dimension that differentiate his music from Berg's and Schoenberg's. The theme in Webern allows to highly structure the compositional dimension. In this sense the theme has the function to base uniquely the composition. As claimed by Webern: “To develop everything else from one principal idea! That's the strongest unity when every body does the same, as with the Netherlanders, where the theme was

Themes emerge in the creative process as the concrete starting point of the conscious compositional process. In the first chapter the interval structure of the musical ideas is considered in relation to the harmonization procedure. My harmonic strategies consist of a free extraction of interval elements from the chromatic scale.

In the second chapter I illustrate my compositional categories, stressing the importance of the concept of continuity and discontinuity, dilatation and compression. Themes are analyzed in the context of their formal interaction, focusing on the dialectics between two notions borrowed from Denis Smalley's spectromorphological analysis: the motion of textural behaviours and motion coordination.<sup>5</sup> The spectromorphological analysis allows for a definition of directional and textural properties from the point of view of the proprioceptive perception: the internal analytical decomposition of the material is contrasted by an external projection outside the thematic idea.

I will show that the material and its manipulation creates categories that generate compositional materials that generate categories etc. This circle-like process makes me think about the interaction between the creative process and the representation of my existential state. This observation opens questions that are beyond my compositional process and, at the same time, the conditions of my poetics. The theme—that is, the beginning of the composition—is not the beginning of the creative process. The theme appears as a sign of a hidden, creative, and existential process that is behind; it appears as implied by the horizon, but it doesn't allow an understanding of the origin of the chosen compositional horizon.<sup>6</sup>

---

introduced by each individual part, varied in every possible way, with different entries and in different registers". (Webern, 1933, 1960: 40)

<sup>5</sup> Denis Smalley, "Spectromorphology: explaining sound-shapes", *Organised Sound*, 1997, pp. 107–26, p. 119.

<sup>6</sup> Marc Leman, *Embodied Music Cognition and Mediation Technology*, MIT Press, 2007. In this text Marc Leman defines the notion of projection in the sense of

# 1. The Material

In this chapter I analyse the configurations of the material of my pieces with their original form. Through this analysis I introduce the notion of theme in my music.

## 1.1. Thematic reduction

In *Ritratto Voce*, for solo voice, the initial repetition of the same notes points out a stable structure that characterizes the piece: the **F#**, repeated irregularly; then the **F**, in the higher register; the **G** and the **E** quarter-tone sharp. Other pitches progressively appear: the **B b** and the **E**, p. 2. This progression creates an underlying structure (Figure 1).

This structure is characterized by three intervals: **major seventh**, **minor seventh** and **major sixth quarter-tone sharp**. It is devised in two registers in contrary movement: the bass line, ascending semitone – **F#**, **G** - and the melodic line, descending semitone – **F**, **E**. This thematic configuration has a centripetal directionality: both profiles focus towards the centre of the octave, converging, by minor second progressions, to the central **C**<sup>7</sup>.

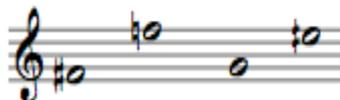
At p. 4 a new profile based on the intervals of **perfect fifth** and **octave**

---

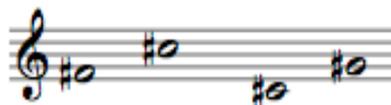
the embodied cognition theory. The chosen composition horizon is concrete and abstract at the same time: perception, cognition and action are involved in a circular movement. Compositional practice result also from the action-perception cycle. In this sense the compositional act is the result of the internal perception of the musical constraints and the projection of musical actions via the score towards an indeterminate future horizon.

<sup>7</sup> It is worth noting that the transition to the last section of the piece is a long crescendo “*messa di voce*” on the **C** (p. 5): this geometrical organisation of the musical form wasn't previously conceived but result from an explicit unawareness of the structural constraints of the initial material.

emerges . These intervals point towards a centrifuge progression (Figure 2).



**Figure 1:** *Ritratto Voce* 1st theme. The structure of the theme is centripetal. The progression of the intervals, divided in two opposite registers, converge towards the centre of the octave between f#4 and f5



**Figure 2:** *Ritratto Voce* 2nd theme centrifuge divergence. Differently from the first idea highlighted in fig. 1, this second is not converging directionally towards a central pitch but is built on the alternation of octaves and fifths that open the line towards an hypothetical infinite repetition.

These structures have two opposite characterisations: centripetal and centrifuge.

The emergence of melodic and harmonic structural elements is common to my whole portfolio. In *Celestografia*, for soprano and string quartet, chords and melodies are based on repetition, multiplication and superposition of semitones. The chords of the beginning of the piece are in fact built on the superposition of major seventh (eb4-d5) and minor ninth intervals (c5-d#6), as shown in figure 3; for instance the melodic minor second fragment appears in the internal texture of the string quartet at bar 13 (Figure 4). This first section is characterized by the repetition of this motif with the repeated A in the soprano. The chords and the melodic line of the second section,

from bar 74, are also based on the predominance of **minor seconds**. This structural element appears in the melodic and harmonic construction of the entire piece (Figure 5) <sup>8</sup>



**Figure 3:** *Celestografia*, first section chords. Chords are built on the superposition of major seventh (eb4-d5) and minor ninth intervals (c5-d#6)

**Figure 4:** *Celestografia*. Melodic fragment based on minor second that is played at bar 13.

<sup>8</sup> The repetition of the minor second motif gives it a hierarchical importance in relationship with the other elements that appear in the foreground. In fact it is worth noting that the structural element of the pieces are shared in the entire portfolio.



Figure 5: *Celestografia*, second part chords

*Le Cose*, for solo violin, begins with a melodic phrase that is similar in profile to the second idea of *Ritratto Voce* (Figure 6). The octave relationships of the intervals are common elements between both structures.

This idea is based on a descending **major seventh quartertone sharp** interval followed by a **minor seventh quartertone flat** interval. The second idea of the piece is based on the **major seventh quartertone higher**, extrapolated from the first half of the first theme (Figure 7). A third idea is extrapolated from the second half of the first theme (Figure 8). The fourth idea is deduced and enlarged from the **minor seventh** of the first theme (Figure 9).

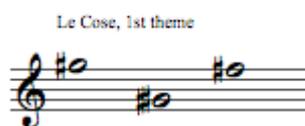


Figure 6: *Le Cose*, principal theme. Similarity with the second idea of *Ritratto Voce* (Figure 2)

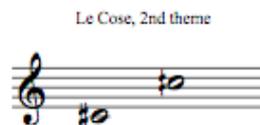
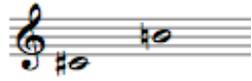


Figure 7: *Le Cose*, 1st derived theme from the first interval of the first theme

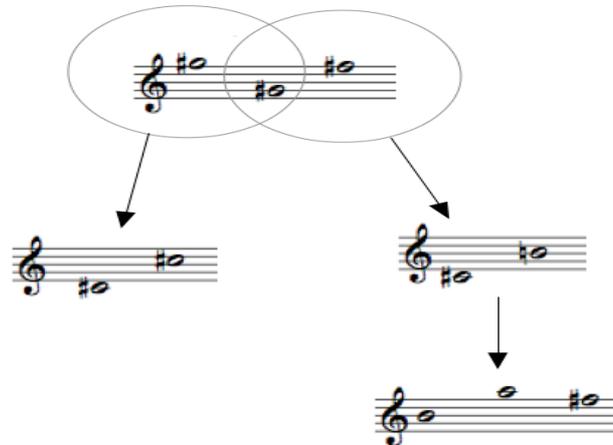


**Figure 8:** *Le Cose*, second section theme (1stA)



**Figure 9:** *Le Cose*, 1stB theme. Fourth idea, derived and enlarged from the minor seventh of the first theme.

This process of meiosis highlights the consequentiality of the succession of the material of the piece. The following highlights the derivation of the main elements of the composition from an original starting point (Figure 10).

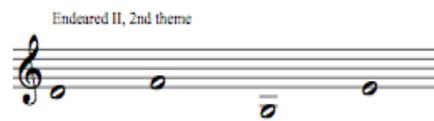


**Figure 10:** *Le Cose*, themes meiosis

In *Endeared II*, for two voices and cymbalom, the first interval, major

seventh, is followed by a short *messa di voce* by the soprano, singing an **F**, interrupted by the **E** played by the cimbalom. The descending semitone idea characterizes the entire first section.

This element is contrasted by a second idea based on larger diatonic intervals that are repeated, inverted and transposed from bar 67 (Figure 11). These ideas characterize two contrasting poles.



**Figure 11:** *Endeared II* second theme

These elements are manipulated through free trajectories, merged and constructed on free interpolations of the intervals that characterize both themes: i.e. the melodic profile is harmonized with an enlarged minor third – the f is a quarter tone higher - that belongs to the second idea (Figure 12).



**Figure 12:** *Endeared II*. Harmonization of the melody with the minor third quarter-tone sharp higher derived from the second idea of the piece.

**Figure 13:** *Autoritratto*, beginning, minor second theme

The minor second – which characterizes *Celestografia*, *Endeared* and *Due Parole* – is also structural in *Autoritratto*, for piano and string trio: i.e. its inversion, the major seventh at the beginning of the piece, characterizes the entire piece (Figure 13).

*Due Parole* (*Endeared III*) develops a material derived from *Endeared II* (Figure 14). In the first example shown in the figure, we see the minor ninth, quarter-tone higher, between the first soprano and the first mezzo; at the same time the viola plays the minor seventh interval that is the second idea of *Endeared II*, but also *Le Cose* and further *Visioni*.

immobile  
 bocca chiusa  
 mp  
 Rallentando poco  
 T° I

S. I  
 [m]

S. II

Mezzo I  
 bocca chiusa  
 pp eco  
 [m]

Mezzo II

Vln. I  
 tast.  
 m.s. pont.  
 quasi rumore  
 angosciato  
 ff > p

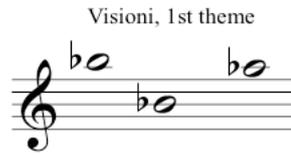
Vln. II  
 mf  
 pp  
 m.s. pont.  
 quasi rumore  
 angosciato  
 ff > p

Vla.  
 arco  
 tast.  
 p  
 mp  
 m.s. pont.  
 quasi rumore  
 arco  
 angosciato  
 ff > p

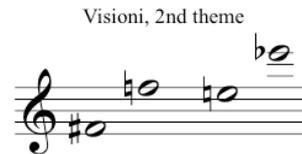
Vc.  
 m.s. pont.  
 quasi rumore  
 angosciato  
 ff > p

Figure 14: *Due Parole (Endeared III)*, bars 37-40

*Visioni*, for ensemble, electronics and objects, develops from the first thematic idea of *Le Cose* (Figure 15) and develops in the second theme based on the decomposition of the minor seven interval (Figure 16). The electronics derives from the very central element of the intervals of the theme. The electronics are built on synthetic instrumental parts is realized by analog synthesizers. The electronics are then merged with the instrumental part by a large set of loudspeakers, as shown in figures 17 and 18.



**Figure 15:** *Visioni*, first theme derived from *Le Cose*'s first theme



**Figure 16:** *Visioni*, second theme

*Visioni*, which is conceived as a light show based on the interaction between the lighting of the loudspeakers, the composition of the acousmatic space of the first part and the presence of the musicians of the second part. In this second part the electronics are composed with the instrumental part starting from the same thematic material. The objective is to fuse instruments and electronics in a unique compositional process. Both are written synchronously, in order to make them interact through the development of harmonic relationships derived from the theme. Indeed, the musicians, behind the loudspeakers, interact with the electronics creating a fused texture (Figure 18).

*Visioni* develops consequentially the thematic ideas. The idea that appears at bar **171** derives from the major seventh of the first idea. It is constructed by a fragmented superposition of minor seventh (minor second inversion): **F#-E, F-Eb** (Figure 16). In the electronics the interval structure of the instrumental part is multiplied and interacts with the instrumental part in the composition, as an orchestra interacting with the solo group (Figure 19).



**Figure 17:** *Visioni*, loudspeakers on scene



**Figure 18:** *Visioni*, musicians in the rear of the scene

The musical score for 'Visioni' is presented on page 128. It features a multi-stemmed arrangement with the following parts:

- Fl.** (Flute): Starts with a rest, then enters with a melodic line marked *f* and *ff*.
- Sx.** (Saxophone): Plays a complex, rhythmic pattern marked *f*, with a *p* dynamic marking later.
- Pf.** (Piano): Features a sparse accompaniment with a *p* dynamic marking.
- Perc.** (Percussion): Includes a *p* dynamic marking and a *ff* dynamic marking.
- Elec. perc.** (Electronic Percussion): Provides rhythmic accents.
- Elec. Synths 1** (Electronic Synthesizer 1): Includes a *ff* dynamic marking.
- Elec. Synths 2** (Electronic Synthesizer 2): Provides a complex, rhythmic texture.
- Click Track**: A steady metronomic pulse.

The score is marked with *ff* (fortissimo) and *p* (piano) dynamics, indicating a range of intensity. The notation includes various rhythmic values, including sixteenth and thirty-second notes, and rests.

Figure 19: *Visioni*, electronics and instruments

A similar approach is developed in *La Visione delle Cose*. This piece is conceived following a similar interaction between instruments and electronics. The projection of the electronics is based on a personalized loudspeaker, similar with the loudspeaker orchestra of *Visioni*. The melodic elements of *Le Cose* are transcribed in the electronics projected at the beginning of the piece. The violin part is then arranged with synthesized sines treated with modulations diffused by the loudspeaker (Figure 20).<sup>9</sup>



**Figure 20:** *La Visione delle Cose*, zyther speaker

---

<sup>9</sup> The *zyther speaker* is a modular loudspeaker that I conceived for *La Visione delle Cose*. It is a speaker with a transducer amplifier and a wooden membrane with resonating metal strings. The transducer was commissioned and conceived especially for this piece. The electronics are conceived as a contrasting part with the instrumental part. The aim is to alternate and superimpose two instruments and to make explicit the instrumental nature of the loudspeaker.

In *Tre Case*, for clarinet, piano and string trio, the principal idea is also based on the minor seventh (Figure 21).

*Deciso* ♩ = 90

Clarinet (in C) *Bass clarinet*  
Piano  
Violin  
Viola  
Cello

**Figure 21:** *Tre Case*, first theme. It is characterized by a minor third, minor seventh and major third. See the first bar violin and piano.

A similar set of intervals is at the centre of the composition of *Four Walls* for two pianists and two percussionists (Figure 22).



**Figure 22:** *Four Walls'* intervals. Derived from the original forms of the musical ideas of *Le Cose*, *Endeared II* and *Due Parole*. The material is common also with the typology indicated for *Visioni* and *Celestografia*. In this sense the portfolio appears as strongly connected around a reduced number of intervals and materials.

As in *Tre Case*, the theme is constituted by a **major sixth**, **major ninth** and **minor sixth**.

Each section of the pieces considered above could be observed from the perspective offered by the thematic structural idea. The theme appears as a semantic and structural unit with a perceptive clear profile that serves as formal anchor and harmonic reservoir.

The objectivity of the material is the base for the subjectivity of the compositional work. It allows hierarchies between the multiple aspects of the composition and a balance between the freedom of the manipulation and the logical rigour of the construction. This approach permits me to constantly compose the material in order to create links between the pieces and to freely compose the sound.

In conclusion, I find three thematic groups (Figure 23). These groups are a common material that proliferate freely in my compositional imagination, making them the methodological bases of these pieces. The first group is characterized by large intervals that are reducible to **minor sevenths**, **octaves** and **minor thirds**. The second group of themes is based on **minor second**

melodic lines, ascending or descending. The third group of themes is based on the **mixture of the first two groups**. Themes are constituted by the elements of the first and second group. The construction of the themes indicates two types of harmonic fields.

Finally, it is worth noting that the thematic groups are based on contrasting harmonic character. This distinction operates as a functional differentiation of the themes. The diatonic themes create a suspended centripetal directionality, morphology, while the chromatic themes create a directional centrifugal morphology. These characteristics suggest the consequential morphological development that I sketch later.

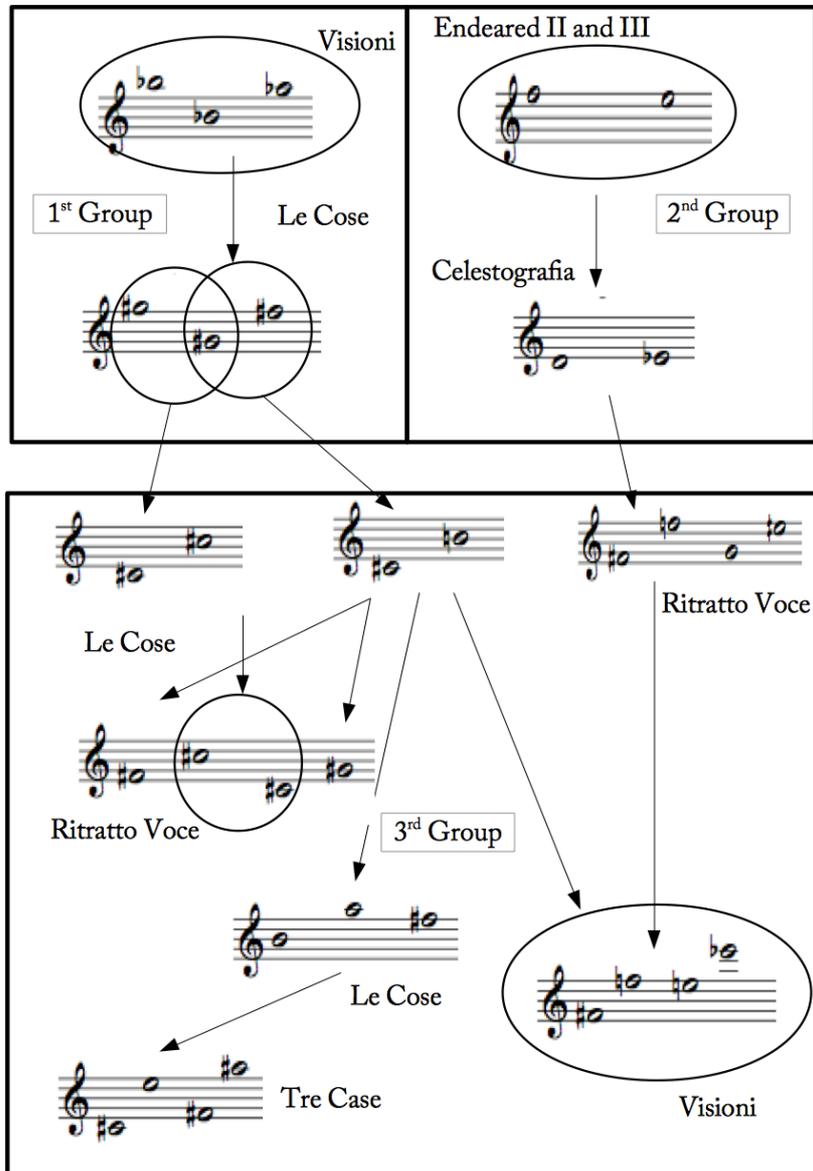


Figure 23: thematic relationships (meiosis and derivation) in the portfolio

## 1.2. Developments

The thematic approach underlines a repetition process that creates complex configurations of fragmentations “inside” the material and directionalities “outside”. These features will show two typologies of repetition: involute and evolutive.

### 1.2.1. Injection: repetition and suspending directionalities

In *Ritratto Voce*, the first element of the piece, an **F#**, returns cyclically on itself. The repeated note of the beginning is understood as a unique element in a free open space (Figure 24). This repetition functions as a recursive echo. The fragmented repetition enlarges the structure of the thematic idea with pauses and variation of values; it is an expansion “inside” the theme. The centripetal cyclic movement of the first theme injects a looping energy “inside” the linear continuity of the melodic line (Figure 25); the second thematic idea appears as an evolution of the first, closing the endless repetition of the previous section (Figure 26). This passage reveals two directional tendencies of the repetition

♩ = 58 Quello che è scritto

La a

*pp*

*precisissimo, cantando sempre*

*mf*

la du ra

Figure 24: *Ritratto Voce*, hesitating repetition of the first note

*pp* *lontano pp* *bocca chiusa eco pp*

ta è [è]

*lontano p* *bocca chiusa eco pp* *mp*

la [a] du

Figure 25: *Ritratto Voce*, fragmentation of the 1st theme

*p* *sogno mp*

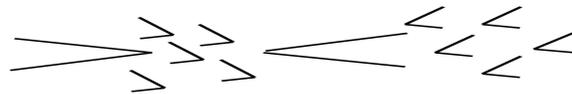
dell' e sis te re

Figure 26: *Ritratto Voce*, second theme

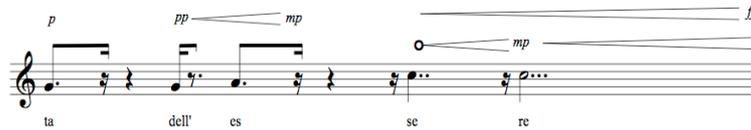
In fact, these contrasted characters of the themes are based on a dialectical complementarity of figures: *crescendo* and *diminuendo*, *closed* (mouth closed – *bocca chiusa*) and *open* (dream – *sogno*). The first part is built on *diminuendos*, the second and the last by the accumulation of *crescendos* - full bright sounds (*as trumpet*), a *chiasma* like figure (Figure 27). The single repeated note, with a *diminuendo* at the beginning, is then inverted into a *crescendo* in the second part and multiplied in the third. In fact, the *crescendo* at the centre of the piece, p. 5, guides the transition from the first to the second section (Figure 28). This rhetorical strategy stresses the contrast of the injective/projective opposition (Figure 29).

This analysis underlines the direct relationship between pitch organisation and rhetorical figures. The suspended repetition is related to the chromatic element of the first theme, while the evolutive repetition to the diatonic one. The figures are strictly related to the pitch organisation, indicating a proportional dynamic between the temporal evolution of the figures and the constraints of the interval organisation.

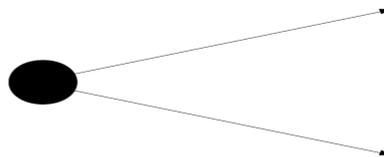
This dynamic relationship, based on the contrast between short and long values, *diminuendos* and *crescendo*, is a common strategy in my pieces. The repetition is used to suspend the directionality in a fixed dimension, or, as in *Celestografia*, to engender a linear repetitive directionality based on the accumulation of the material (Figure 33). This form of repetition creates *pressured* passages based on causal links and anacrusis in the development.



**Figure 27:** *Ritratto Voce*, dynamic chiasma



**Figure 28** *Ritratto Voce*



**Figure 29:** *Ritratto Voce*, thematic connection point

In *Celestografia*, the suspensive injective repetition is based on long downbeat values that loop the minor second theme. The section between bars **74** and **104** is based on the alternation of the repetitive minor second element sung by the soprano and the static chords played by the quartet (Figure 30). From bar **105** the minor second interval is multiplied horizontally and vertically. The following section, bars **109-137**, is a reprise of the horizontal evolution through the repetition of scale fragments. This aspect is clearly directional (Figure 33).

In the last section of *Celestografia*, from bar **181** to the end of the piece, the note **A** is repeated by the strings, creating a suspended atmosphere. The harmonic field of this section is again based on a clusterized **minor second**. In this last section, a new theme based on a descending fifth and a rising

**minor sixth** appears. This melodic element is repeated twice (Figure 31). This melodic element has a similar function with the second theme of *Ritratto Voce*. The repetition of this section is based on a closed repetitive space that is widened by this unattended melodic profile. This enlargement of the interval as conclusive function characterizes another common rhetorical strategy in my works, as shown previously in *Ritratto Voce* for instance.

Celestografia Melody

Do - ve se - i

**Figure 30:** *Celestografia*, theme melody

**Figure 31:** *Celestografia* final. This melodic element has a similar function with the second theme of *Ritratto Voce*.

The last section of *Visioni* presents a similar strategy. It is built on the repetition of elements of the main theme - **octave** and **minor seventh** – inverted and harmonized, creating an irregular static repetition (Figure 32). In this section the directionality is suspended by the cyclic repetition of the intervallic elements of the theme. At the same time, this repetition assumes the function of a closing section. It also evokes, from the point of view of the compositional strategy, the final part of *Celestografia*.

The image displays a musical score for two instruments: Piano (Pf.) and Percussion (Perc.). The piano part is written on a grand staff with treble and bass clefs. It begins at measure 507 and features a melodic line with various intervals, including octaves and minor sevenths, as described in the text. Dynamic markings include *pp*, *f*, and *mp*. The percussion part is written on a single staff with a treble clef and consists of a rhythmic pattern of eighth notes with stems pointing up and down, alternating between two different pitch classes.

**Figure 32:** *Visioni*, irregular repetition of the varied theme

The image displays a musical score for a section of 'Celestografia'. It consists of two systems of staves. The first system includes a vocal line (S) and four instrumental lines (Vln. I, Vln. II, Vla., and Vc.). The vocal line features lyrics: 'do ve sei do ve sei do ve'. The instrumental parts are highly textured, with Vln. I and Vln. II playing rapid sixteenth-note passages. The Viola and Violoncello parts provide harmonic support with sustained notes and rhythmic patterns. The second system continues the vocal line with lyrics: 'se i se i se i se i do ve se se se i se i se i se i do ve?'. The instrumental parts continue their complex, layered textures, with dynamic markings such as *f*, *mf*, and *p* indicating changes in volume. A double bar line with repeat dots is visible between the two systems.

Figure 33: *Celestografia*, multilayered section

The dialectics between *short* and *long*, *crescendo* and *diminuendo*, define a clear compositional strategy based on contrasts and transitions. These elements are mixed contrapuntally, alternating them with the goal of defining a large variety of values and dynamics.

The injective strategy outlined there is the result of a reduced organic musical construction that serves as the basis for invention based on dialectical compositional categories. The interval material that defines the thematic idea is used to obtain a cyclic and suspended morphology. The use of contrasting materials underlines the different functionalities that the intervals have in the formal dynamic of the composition. The rhetorical aspect of the figures serves to underline the formal futures of the interval structure of the thematic element. The attention to the use of *crescendo* and *diminuendo* characterizes the sections of the piece. Thus, this strategy, coupled with the contrast in the harmonic setting, grounds the formal development of the pieces.

These functionalities explore the transitional space between the first and the second theme. This dimension characterizes the open space in which I move freely, working on the allusion of the thematic elements.

### **1.2.2. Projection: repetitive directionalities**

The projective development of the themes implies large-scale directionalities based on contrasts and repetitions. I'll consider some examples from my portfolio to highlight these specific features.

The central section of *Autoritratto* is based on the repetition of fast ascending scales, contrasting with the static long values of the first section (see p. 19). This section is based on three musical configurations that interact dialectically on a repeated rondo-like form. The first element is melodic. It is characterized by a line derived by minor second movement in the upper register (Figure 34). The second configuration is based on rapid scale progressions (Figure 35). The third consists of arpeggio figures modelled on gestural *tablatures* (Figure 36).

14

Vln. *p (in arioso)*

Vla. *p (in arioso)*

Vlc.

Pno. *f (intenso)*  
vibrante

Figure 34: *Autoritratto*, melodic element in the higher register

Vln. 14 15

Vln. *mf* *mf* *mf* *ff* *mf* *ff*

Vla.

Vlc. *mf* *mf* *ff* *mf* *ff* *mf*

Pno. *mf*

Figure 35: *Autoritratto*, second configuration, central section

The image shows a musical score for the central section of the third configuration of *Autoritratto*. It consists of four staves: Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Piano (Pno.). The Violin I part features several measures with *f (vibrato)* and *ff (scapovato)* markings, followed by a *ff* dynamic. The Violin II part has *f (vibrato)* markings. The Viola part starts with *f (vibrato)* and later has *f (intenso)*. The Piano part begins with *mp*, then *f (intenso)*, and ends with *f (tutto spinto)* and *f*. The score includes various musical notations such as slurs, accents, and dynamic hairpins.

**Figure 36:** *Autoritratto*, third configuration, central section

These configurations interact dynamically and consequentially. The third idea introduces the second; the arpeggios of the strings introduce the scales focusing on a linear process; the first configuration follows the climaxes. The dynamic contrast between the closed and open intervals discussed in *Ritratto Voce* and *Celestografia* is in a new form in *Autoritratto*: this contrast is used to create the transitions between arpeggios and scale figures. The climax, reached by the accumulation of the scales, points again to the first element, static and contemplative (bars 82-85). In this central section, dynamics have a crucial role. At bar 72, the beginning of the central section, after a transition from bar 55, the strings are *f* or *ff*, with crescendos dal niente to *f*; the climax at 82 is followed by the reprise of the first idea, played *p*. From bar 86, dynamics articulate little crescendos of each ascending figure with

progressive augmentation from mf to ff, bars (92-94). The climax at bar 94 is followed by the second arpeggio idea played suddenly p and followed again by a section combining the first and second idea, played p. In the following sections, f and p sections alternate creating a contrasting formal dynamic shown in Figure 37.

<b>Bars</b>	72	76-	79-	84-	86-	88-	90-	96-	99-	106-	111-	113-	116-	124-	129	130-	136-	138-139
	-	78	83	85	87	89	95	98	105	110	112	114	123	128		135	137	
	75																	
<b>Dyn</b>	f	p	f	p	mf	f	ff	mp	p	f	p	p	pp	ff	p	mp	p	f

**Figure 37:** *Autoritratto*, alternation of the dynamics in the development

The scheme shows the complex contrasts of dynamics in the construction and the variation in the contrast process. The alternating dynamics are not schematically composed but are intended in the sense of an evolution of the section, searching to underline the dynamic contrast related to the alternating figures. The rapid repetition of the event's alternation creates the impression of consequentiality in the configurations.

In *Due Parole*, the section starting from bar 84 follows a similar strategy. In this section two elements are alternated: a rapid rhapsodic element followed by an emerging chord (Figure 38). These two elements interact dialectically until the climax at bar 116 (Figure 39).

*Un lampo, velocissimo* ♩ = 180

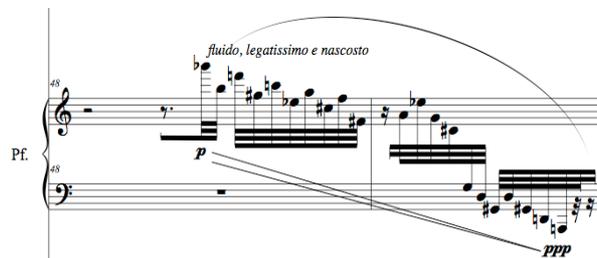
*Ritenuto molto*  
**T° II**

S.I.  
S. II  
Mezzo I  
Mezzo II  
Vln. I  
Vln. II  
Vla.  
Vc.

Figure 38: *Due Parole*, beginning of the development

Vln. I  
Vln. II  
Vla.  
Vc.

Figure 39: *Due Parole*, climax



**Figure 40:** *Visioni*, first development main element

*Visioni* has two developments. Both developments are constructed on the alternating technique already highlighted in *Autoritratto* and *Due Parole*. The first development is based on the idea announced in the introduction by the piano in bars 48-49 (Figure 40). This idea is multiplied in the first development, bars 197-260, alternating with a syncopated figure and the second melodic theme (Figure 41).

The second development is based on the figure played by the flute and the saxophone of the second section of the introduction in bars 139-140 (Figure 42). This idea is multiplied in the second development, bars 315-388 (Figure 43). The scale element interacts with a vertical attack played by the piano and the electronics.

**T<sup>o</sup>III (♩ = 70 ca.)**

Fl. *f* *mp* *ff*

Sx. *f* *pp* *ff*

Pf. *f* *f*

Perc. *f*

**Figure 41:** *Visioni*, first development figures alternation

Fl. *mp* *p* *mp* *p* *mf* *p*

Sx. *mp* *p* *mf* *p*

**Figure 42:** *Visioni*, second development principal element

**Figure 43:** *Visioni*, second development

The central section of *La Visione delle Cose*, bars **225-334**, is also characterized by the development of the directional repetitive elements. The first one is based on a trill figure (Figure 44), and the second one on arpeggio gestures (Figure 45). *La Visione delle Cose* encompass some characteristics of my compositional approach: the hierarchical organization of themes; the utilization of a similar set of intervals and its consequential harmonic approach; the utilization of the electronics, mainly based on synthetic sounds; the construction of development sections based on the interaction of two/three dynamic elements.

The image displays a musical score for the development of the first element in *La Visione delle Cose*. The score is organized into seven staves, each with a circled measure number '268' at the beginning.

- B. Cl. (Bass Clarinet):** Features a complex rhythmic pattern with slurs and dynamic markings of *mf*, *p*, *f*, *p*, and *f*.
- e.Gtr. (Electric Guitar):** Shows a single note held for the duration of the measure, marked *pp*.
- Perc. (Percussion):** The staff is empty, indicating no percussion activity.
- Vln. (Violin):** Contains a dense, tremolo-like texture with slurs and dynamic markings of *ff* and *p*.
- Vla. (Viola):** Features a similar tremolo texture to the violin, with dynamic markings of *> p* and *pp*.
- Ve. (Violoncello):** Shows a rhythmic pattern of eighth notes with a dynamic marking of *pp*.
- C.S. (Cello/Double Bass):** The staff is empty, indicating no activity.

Figure 44: *La Visione delle Cose*, development first element

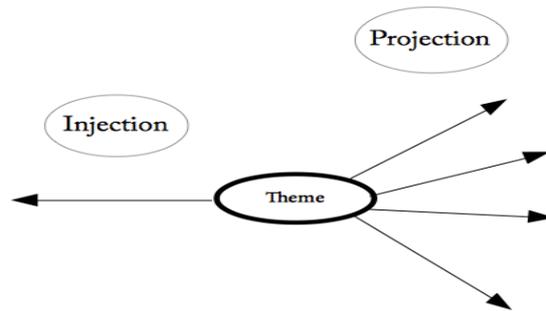
The image displays a musical score for the piece "La Visione delle Cose" at measure 298. The score is arranged in a vertical stack of staves for different instruments:

- B. Cl. (Bass Clarinet):** Shows a single note with a long, sweeping slur above it. Dynamics are marked as *f* (forte), *mp* (mezzo-piano), and *mf* (mezzo-forte).
- e. Gtr. (Electric Guitar):** Shows a single note with a long, sweeping slur above it.
- Perc. (Percussion):** Shows a single note with a long, sweeping slur above it.
- Vln. (Violin):** Features complex, dense arpeggiated patterns with various dynamics including *ff* (fortissimo), *p* (piano), *f* (forte), and *ff* (fortissimo).
- Vla. (Viola):** Features complex, dense arpeggiated patterns with various dynamics including *f* (forte), *ff* (fortissimo), *p* (piano), *f* (forte), and *ff* (fortissimo).
- Vc. (Violoncello):** Features complex, dense arpeggiated patterns with various dynamics including *ff* (fortissimo).
- C.S. (Cello):** Shows a single note with a long, sweeping slur above it.

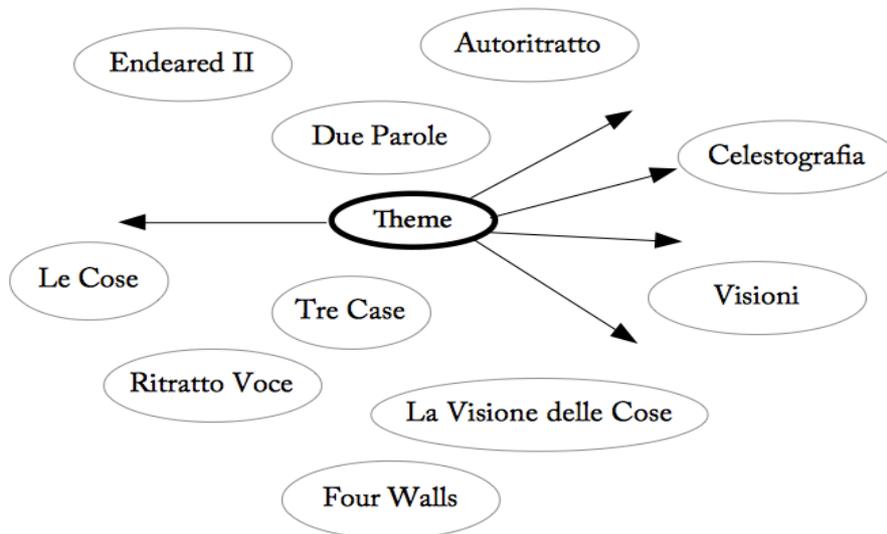
Each staff is marked with the measure number "298" in a circle at the beginning.

Figure 45: *La Visione delle Cose*, tablatures-arpeggio gestures

*Injection* and *projection* are opposed compositional process. Injection is characterized by the cyclic and analytical use of material, while projection is characterized by a constructive, synthetic approach that extrapolates the formal potentialities of material (Figure 46). These dimensions interact in my pieces at different levels. The following schema gives an overview of the portfolio from this perspective (Figure 47).



**Figure 46:** Injection and projection of themes



**Figure 47:** degree of injectivity and projectivity of themes in the portfolio

*Ritratto Voce* and *Le Cose* are basically “injective”: themes have a structural function defining the linear development of the pieces into micro directionalities; the development is based on *fragmentation* and *dilatation*. *Celestografia* is, on the contrary, “projective”: the material is exploited as basic material of macrodirectional sections; the manipulation of the material is then based on conjunction and *linear/non-linear* accumulations.

*Injection* and *projection* appear as forms of a unique compositional perspective. Both are based on cyclic repetition of reduced elements of the themes. *Injection* is characterized by the repetition of the *separated, fragmented* elements while *projection* is based on the repetition of the *conjoined* and *compressed* elements of the themes. *Projection* is based on the repetition of macro-configurations that present a complex compositional dimension. The alternation of contrasting elements defines a common compositional strategy in my work. In *Celestografia*, accumulation is based on the repetition and multiplication of thematic elements; in *La Visione delle Cose*, *Autoritratto* and *Due Parole*, the developments are based on the dialectical evolution of the contrast.

The acceleration of the contrasting elements that are juxtaposed produce sections in which the directionality is accumulated and the tension of the discourse increased with the variation of the elements of the development and their repetition. The atomic elements of the material are multiplied; the fundamental configurations of the developments are the complex reticule of relationships that the superposition and the multiplication of the elemental elements engender. The macro-figures that emerge are characterized by arpeggio-like figures alternated with micro-polyphonic textures.

## 2. Categories

The strategies discussed in the first chapter are the result of a more abstract compositional approach that defines the typologies of the elements. The thematic procedures appear as mobile structures that are used to control and compose complex textures, directional or non-directional. The thematic structure then is embedded in more abstract categories based on the concrete sound morphologies of the musical themes. In this sense the concept of sound-shape seems to be crucial in the analysis of my works. Which compositional categories control the thematic material? How does the dialectic of the sound-shapes reveal abstract compositional categories that influence the structural and hierarchical utilization of thematic elements? Is there then a relationship between sound-shapes and themes? Is there a categorical dialectic in my compositional strategies?

Denis Smalley introduces the notion of spectromorphology. As defined by Smalley, spectromorphology merges the temporal and the atemporal aspects of sound textures:

I have developed the concepts and terminology of *spectromorphology* as tools for describing and analysing listening experience. The two parts of the term refer to the interaction between sound spectra (*spectro-*) and ways they change and are shaped through time (*-morphology*).<sup>10</sup>

Smalley uses the metaphor of behaviour in order to highlight the relationship between spectromorphologies. This model, developed through the analysis of electroacoustic music, fits also for the instrumental. The first

---

<sup>10</sup> D. Smalley, "Spectromorphology: explaining sound-shapes", *Organised Sound* 2(2), 107-126, p. 1.

reason is that the freedom in composing textures is now often similar in electronic and instrumental music; the second reason is that, as suggested by Smalley again, the spectromorphological vocabulary can be used for the analysis of instrumental or vocal music.<sup>11</sup> In this sense spectromorphology is useful to reveal the listening strategies at the basis of my cognitive listening.<sup>12</sup>

The notion of behaviour

may be applied at a variety of levels, for example, discrete events, low-level texture motion, or the much higher level of relations between groups of textures or growth processes. Behaviour has two interactive, temporal dimensions, [...] one vertical the other horizontal. The vertical dimension is concerned with *motion coordination* (concurrence and simultaneity), while the horizontal dimension is concerned with *motion passage* (passing between successive context).<sup>13</sup>

It is important to relate these notions to the thematic analysis made before and the utilization of figures, repetitions and progression that defines my melodic style. There is a direct relationship between static and kinetic sections, groups of themes and intervals. The constructive and deconstructive

---

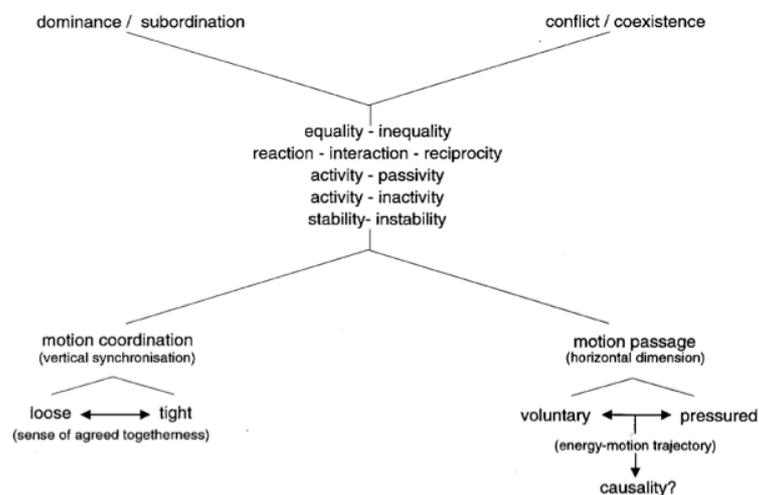
<sup>11</sup> D. Smalley, *op.cit.* p. 3: “Some contemporary instrumental music can also be approached spectromorphologically – for example, the music of Xenakis and of younger composers like Grisey, Saariaho, Murail, Dillon and many others concerned with spectral and textural complexity. In this music there is often a loss of instrumental identity as the orchestra is ‘resynthesised’ into a kind of spectromorphological hyper-instrument. While we may sometimes be conscious of instrumental identity, we can equally be persuaded to forget individual note-gestures as these individuals are subsumed in streams and collective motions. Even though this music is represented and achieved through musical writing, the score itself is a very inadequate representation of perceptual qualities. An aural approach which treats recordings of such works in the manner of an acousmatic tape work is often much more fruitful”.

<sup>12</sup> F. Lévy, *Le compositeur, son oreille et ses machine à écrire : Déconstruire les gramatologies du musical pour mieux les composer*, Vrin, Librairie Philosophique, Paris, 2014.

<sup>13</sup> D. Smalley, *op.cit.* p. 12.

approach is related with the tense directionality of the developments of my pieces and the non-directional composition of the introductions or transitions in the pieces of the portfolio. The themes outlined in the previous chapter constitute the basic material of the construction of my complex spectromorphologies. The utilization of the theme is related to the “vertical” and “horizontal” textural behaviour analysed by Smalley. The theme is used as a framework to allow the fragmentation of the musical space through transpositions and time stretches, or as intervallic material that allows directional textures. In this sense the contrast between motion coordination and motion passage coherently describes a dualism in my compositional approach.

As suggested by Smalley, textural behaviour has two interactive time dimensions: the vertical and the horizontal. Both belong to two different configurations, the *un-pressured* category of *motion coordination* and the directionally *pressured motion passage* (Figure 48).



**Figure 48:** Denis Smalley 's textural behaviour diagram. Denis Smalley, “Spectromorphology: explaining sound-shapes”, *Organised Sound* 2 (2): 107-126, p. 119.

I introduce the notion of *un-pressured* behaviour in order to stress the opposition between *motion coordination* and *motion passage*. The suspension of directionality, as analysed above, belongs to the category of *un-pressured* textural behaviour. The element of this movement that interested me is the observation made by Smalley regarding the “degree of coordination freedom”:

The *loose-tight continuum* represents the *degree of coordination freedom*. Whereas synchronicity has been the rule in tonal art music, it is no longer the case. Today there is an extreme distance between a very tight, perhaps rigidly controlled, punctual, homorhythmic, minimal music, and the very relaxed, malleable associations found in some electroacoustic music. Indeed, spectromorphologies could be so different in their character and motion that the only relationship they seem to have is that they exist in the same space at the same time. That, of course, is in itself a behavioural relationship.<sup>14</sup>

In fact in my music *un-pressured* textures are characterized by the free movement of sounds in the compositional space. It is represented by an open space without causal links between musical elements. And in my music I try to re-construct a hypothetical *causality*. For instance in *Ritratto Voce* the possibilities of the themes are constructed as two parallel hypothesis. In the reconstruction process the un-pressured configuration allows one to indicate and go through the compositional possibilities. On the opposite pole the vertical coordination, which I interpret as *un-pressured*, Smalley defines the horizontal dynamic through the concept of *continuum*. The *voluntary-pressured continuum* is characterized by the common energy of the amalgam and by its directionality. The first one is defined as *voluntary* and second one

---

<sup>14</sup> Denis Smalley, “Spectromorphology: explaining sound-shapes”, *Organised Sound*, 1997, pp. 107–26, p. 118.

as *pressured*. The connection of events is due to the perceived degree of causality.

The *pressured* dimension corresponds to the degree of causality, the *un-pressured* with the degree of *uncausality* — that is, near to the absence of *togetherness*. The motion passage morphology, then,

[...] expresses how one context or event yields to the next. We are reminded that such questions as the degree of motion coordination, the energy–motion trajectory of gesture, the pressuring urgency of onset rates, and the type of motion are strong determinants. *Causality*, where one event seems to cause the onset of a successor, or alter a concurrent event in some way, is an important feature of acousmatic behaviour. The arrow leading from the voluntary– pressured continuum shows that causality can be weaker or stronger, depending on the influence or impact one spectromorphology has on another. On the whole, a strongly causal music relies on gesture, and impact-coordination points which will be regarded as goals in the structure.<sup>15</sup>

The vertical and horizontal dimensions are closely related: the degree of causality could be considered from the absence of causality—the *un-pressured*—and the presence of causality—*pressured*. The themes provide the coherence of the work and are used as a reservoir and are structured vertically and horizontally.

In this sense I borrow the notion of *pressured* and *un-pressured* spectromorphology from the analysis of textural behaviors.<sup>16</sup> Consequently, the aim of this chapter is to clarify textural areas that define the compositional categories that dialectically collide in my music. These

---

<sup>15</sup> *Ibid.*

<sup>16</sup> D. Smalley, *op.cit.*

categories are considered from the point of view of the notion of textural *causality*. This notion exemplifies my way of defining injective or projective manipulations of the material; these larger categories are defined by the degree of causal internal relationship. The interest in the use of spectromorphological terminology is the common aspect of the content of sound and its envelope: movement and the internal content of the texture are aspects of the same complex configuration.

The category of *un-pressured* defines the open space in which each sound event is unrelated to the other; the vertical dimension of this category is characterized by the degree of *togetherness*. The category of pressured behavior, on the other hand, is based on the causal relationship between sound events; this category is based on the horizontal behaviour characterized by the degree of textural causality.

Connections between events are guided by the type of *pressured/causality* or *unpressured/uncausality* continuum. The “free-space” continuum—in which the material is exposed in static sections, *un-pressured*—is in a formal dialectical relation with a vortex-like direction in which the motion passage transforms an open situation into a process whereby the succession of events is based on causality. This dialectic is constructed around the thematic material with specific figures that will be highlighted below.

## **2.1. Connections functions**

In the context characterized by the reducing thematic approach previously described, the notions of *decomposition* and *recomposition*, *directionality* and *suspension* of the theme constitute the technical categories of my compositional method. The *decomposition/recomposition* is related to the

degree of togetherness, while *directionality/suspension* is related to the energy motion causality. The process of *decomposition/recomposition* is based on *horizontal* and *vertical fragmentation*.

### 2.1.1. Un-pressured

The spectromorphological concept of *un-pressured* behavior describes the free relationship between objects in an open space in which the causality between events tends towards zero. *Un-pressured* spectromorphologies are the result of the fragmentation of the theme in long values, octave transpositions and microdirectional events.

#### 2.1.1.1. Fragmentation

Fragmentation is characterized by *horizontal* and *vertical* processes through which the components of the musical material are modified by changing the dimension of the melodic elements and the range of registers used, distancing the pitches and changing the values of the original notes. **Horizontal fragmentations** are based on expansion or reduction of the values and the extension and compression of phrases; **vertical fragmentations** are based on the spreading of the line in the different registers.

This process is similar with the decomposition of complex events in smaller parts. In my music this method is related to the analysis and abstraction of the elements of the musical idea.

### 2.1.1.1.1. Fragmentation process in past music literature

Processes of fragmentation delineate a category of procedures used by classical and contemporary composers. The procedures of romantic composers inspired my compositional work in the sense of the coherence of the utilisation of the material. The development of the thematic ideas implies the compositional formal profile. Fragmentation is a technique used to suspend the discourse and to build transitions to new movements, or to introduce some important musical element.

In Beethoven, the fragmentation process acquired a more important role, for instance, at the end of the *Eroica Symphony*'s second movement (Figure 49). In the following bars the theme is ulteriorly fragmented, even destroyed and senseless (Figure 50). This final *résumé* fragments the first thematic idea, denaturing it in its rhythmical and phraseological unity (Figure 51). In the last bars, the horizontal fragmentation includes both rhythm and dynamics (Figure 52).



Figure 49: Beethoven, *III Symphony*, 2nd movement, bar 239



Figure 50: Beethoven, *III Symphony*, 2nd movement, bar 241



The image displays a page of a musical score for the end of the exposition of the first movement of Beethoven's VII Symphony. The score is organized into two systems of staves. The first system includes parts for Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Fag.), Cor (Cor.), Trumpet (Tr.), Trombone (Tp.), Violin (Vcl.), and Bassoon (Bassoon). The second system includes parts for Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Fag.), Cor (Cor.), and Basses (Bassi). The score features various dynamic markings such as *p*, *ff*, and *cresc.*, and includes the tempo instruction "Vivace,  $\text{♩}$  104." The notation includes complex rhythmic patterns, including sixteenth and thirty-second notes, and rests.

Figure 53: Beethoven, VII Symphony, 1st movement, end of exposition

At end of the exposition of the first theme of the first movement of Beethoven's *Seventh Symphony*, the theme is reduced to one single note (Figure 53). The transition is the result of the elimination of all the links of the theme and opens up possibilities for further developments. This approach is similar to the one I use in *Ritratto Voce* and *Visioni*, where the elements of the theme are transposed by an octave, losing any directionality.<sup>17</sup>

In the last Beethoven example, the note **E** is fragmented, transposed and repeated in the horizontal and vertical space. The flutes and violins repeat the note, first in fast repetitions and then fragmented by larger pauses. This transition is for me a model of vertical fragmentation.

Similarly, in Mahler's *Symphony No. 9*, the listener assists in the “birth” of the first theme (Figure 54).

I.

2. Horn in F. *Andante comodo.* *f* *pp* *offen (Echo)*

4. *p*

1. Harfe. *f* *pp*

1. Violine. *Andante comodo.*

2. Violine. *p*

Viola. *pp*

Violoncell. *pp* *1. Hälfte.*

Kontrabaß. *Flag* *pp*

Figure 54: Mahler, *IX Symphony*, 1st movement, bars 1-6

<sup>17</sup> My pieces could be considered as expansions of transitional sections.

The notes are positioned as decomposed elements of an already unknown theme. The simple timbre of the instruments resonates in the space of the orchestra. The cellos, the horn, the harp and the violas cover a horizontal fragmented space on the stage. This decomposed strategy of introduction of the theme is similar to the beginning of *Visioni*; it is for me a prototype of the fragmentation in *Le Cose* and *Ritratto Voce*, which are an expansion of this hypothetical “birth of a theme”.

#### **2.1.1.1.2. Vertical Fragmentation**

The *un-pressured* textural behaviour that I highlight presents two different tendencies. The values fragmentation and the register amplification define two contrasting compositional spaces that reveal the un-pressured compositional strategy. In the first example, *Endeared II*, the theme is decomposed *horizontally*. Values are different and the continuity of the theme is destructed by the insertion of pauses, the alteration of the accent of the phrase, and the isolation of intervals. In the second example, *La Visione delle Cose*, the transition is accomplished with transpositions and octaviations. In fact, the octave transposition weakens the directionality of the figures and reduces the movement to a circular opening repetition. This procedure exemplifies the vertical fragmentation of my works. In *Endeared II* the decomposition of the theme in different registers characterizes the entire piece. This fragmentation engenders harmonic processes, suspending the consequentiality of the theme and enriching the linear scroll of the melody. The departing material is deployed from the first measure, fragmented vertically in two registers (Figure 55). Themes belong to the same octave, being the center of register variations via octave transpositions and timbre fragmentations (Figure 56). The notes that deviate from the basic line are

based on **minor thirds** detached by the theme.



Figure 55: *Endeared II*, 1<sup>st</sup> theme

Not to the sensual ear, but, more endeared,  
Pipe to the spirit dimes of no tone

*a Luigi Gaggero*

$\text{♩} = 100$

Soprano: *come tromba* *f* Dov' è Dov' -

Contralto: *viola flautato* *p* mi

Cymbalom: *gocce d'acqua* *mf* *p* *con l'argento* *mf*

---

*Ritenuato* *Tempo* ( $\text{♩} = 100$ )

Soprano: *f* *mp* *mf* *p* è Dov'è Dov'è Do...

Contralto: *mp* *pp* *pp* *mp* o mio cor mio

Cymbalom: *p* *mf* *pp*

Figure 56: *Endeared II*, page 1

*Due Parole (Endeared III)* presents a similar fragmentation. The **minor second** theme is fragmented between the soprano, viola and first mezzo-soprano. The harmonization is also based on minor third and its **major sixth** inversion (Figure 57). In *Le Cose* the vertical fragmentation is used as a unique means of generating secondary themes. For instance, the minor seventh of the beginning becomes a minor 14<sup>th</sup> (Figure 58).

The musical score for *Due Parole (Endeared III)* is presented in a multi-staff format. The top staff is for Soprano I (S.I.), followed by Soprano II (S.II), Mezzo I, Mezzo II, Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Violoncello (Vc.). The score includes various dynamic markings such as *pp*, *p*, *mp*, *f*, *ff*, and *fff*, along with performance instructions like *come tromba*, *un filo*, *bocca chiusa*, *ord.*, *pizz.*, *tast.*, *arco*, and *fulmineo*. A dashed line connects the notes in the Mezzo I and Mezzo II staves, highlighting a specific melodic fragment. The score is marked with a *T<sup>o</sup> I* and a measure number of 25.

Figure 57: *Due Parole (Endeared III)*



Figure 58: *Le Cose*, bar 51

Similarly, as highlighted previously (Figure 18) the second theme of *Visioni* derives from the first one (Figure 59). The major seventh is divided in two parts: **Bb** and **B** in the vibraphone and piano, and **C** and **Db** in the piano and flute.

Figure 59: *Visioni*, fragmentation of the second theme

The fragmentation in the vertical space is basically based on octave transpositions. This fragmentation creates suspended sections of the thematic line, separating it in more instruments. The directionality of the musical gestures as short intense crescendos engenders micro-directionalities, which indicate possible *pressured* motions. In that sense themes have a texture unity that allows deviation. The theme is vertically fragmented, exploded in opposite registers in order to lose its melodic unity. This typology of fragmentation allows the enlargement of the harmonic space of events; thus the instrumental gestures fill the space with polyphonic micro-articulations (Figure 60).



### 2.1.1.1.3. Horizontal Fragmentation

The horizontal fragmentation is based on *prolongation*, *stretching* and *separation* of the values of the theme. In *Le Cose*, for example, the double stop on p. 1 is horizontally stretched by the repetition of the highest note, like a fading echo (Figure 61). The extraction of the last element of the phrase suspends the linear directionality, opening timbral possibilities and hypothetical formal unattended developments. In *Ritratto Voce*, for instance, the repeated dotted quavers give the basis for variations of longer values. This prolongation of the line and its fragmentation is based on the dialectic between the note in *crescendo* and its distanced *echoed repetition* and inversion (Figure 62). In this piece the fragmentation is indicated as *echo*. This specific echoing also characterizes the pieces *Le Cose*, *Endeared II*, *Due Parole* (*Endeared III*), and *Visioni*. In *Autoritratto*, the *ff* in the piano is echoed by the violin (Figure 643. In *Celestografia*, echoing has the function of transforming the echoed element in a new one, based on the end of the echoed event (Figure 64): the last note of the melody is the starting point of a repetitive pattern (Figure 65).



Figure 61: *Le Cose*, bars 14-15



Figure 62: *Ritratto Voce*, page 2, second system



Figure 63: *Autoritratto*, bars 1-4

77  
S  
Vln. I  
Vln. II  
Vla.  
Vc.

*mp*  
*mp*  
*mf*  
*mp*

*p*

Figure 64: *Celestografia*

77  
S  
Vln. I  
Vln. II  
Vla.  
Vc.

*ppp*  
*mp*  
*mf*

Figure 65: *Celestografia*, echo

The echo's figure allows a deviation from the original event and the definition of a section based on the suspension of possibilities. This repetition in the horizontal dimension has the same role of the note repetition in the Beethoven examples above: it suspends the discourse, opening new possible continuations. In *Endeared II* there are other variations of the echo figure. For instance the “horn” sound at bar 28 (Figure 66). The following examples underline two typologies of echoing related to the horizontal prolongation of the theme. In the first, the echo is tied to the echoed note (Figure 67). In the second example the echo is disengaged from the source (Figure 68). Another form of echo is applied to a larger fragment (Figure 69). In *Due Parole (Endeared III)* echos are used in several forms. The following example is based on the repetition of a high B by the first violin. This use of the echo is similar to the repetition in *Ritratto Voce* (Figure 70). A similar variant of this echo function appears in *Tre Case*. In this example the echo is a recursive element (Figure 71). This timbre typology has a role in the fragmentation process. The echoed source is shifted temporally and harmonically in the horizontal and vertical space. A strong attack is fragmented in multiple layers. For instance, at the beginning of *Tre Case* the violin plays three notes that are the response to the first *forte*. In this example the vertical fragmentation joins the horizontal fragmentation because the first note is repeated as transposed and echoed in three registers.

26 *mf* *p* *poco* *p* corno baschi (immobile) *mp*

mi o co

26 *mp* corno baschi (immobile) *p* *poco* *p* *mp* *pp* *mp*

o [a] il mi o co r mi

26 *p* *mp* *mf*

*f*

Figure 66: *Endeared II*, bars 26-30

*m.s. post.*

*mf* *pp*

Figure 67: *Le Cose*, bars 23-24

*fast.* *post. e Co*

*mf* *pp*

Figure 68: *Le Cose*, bars 11-12

*tast.* *m.s. post.* *ord.*

*mf* *pp* *mp*

Figure 69: *Le Cose*, bars 86-87

49

S.I. *p* *f* *mp* *ff*  
do - ve do - ve *p*

S. II *p* *ppp* *p* *pp*  
bocca chiusa immobile  
[m]

Mezzo I *ppp* *p* *pp*  
do - ve

Mezzo II *scuro* *mf* *p*  
do - ve

Vln. I *f* *ord.* *ff* *pp* *ppp* *ff* *pp*  
*ord.* *ppp* *pp* *ppp* *pp* *pp*

Vln. II *f* *ord.* *mp* *f* *ff* *pp* *p* *mp*  
*pizz.* *ord.* *mp* *f* *ff* *pp* *p* *mp*

Vla. *f* *ord.* *mp* *f* *ff* *pp* *p* *mp*  
*ord.* *ppp* *pp* *ppp* *pp* *pp*

Vc. *m.s. fast.* *scuro* *f* *ff* *pp* *pp*  
*mf* *p* *mp* *pp*

Figure 70: *Due Parole (Endeared III)*, bars 49-54

11

*Case nascoste*

*Scuro* ♩ = 66

Cl. *ppp* *p*

Pno. *mp* *f*

Vla. *p* *p* *mf*

Vln. *pp* *mf*

Vc. *pp* *mf*

Figure 71: *Tre Case*, bars 83-87

### 2.1.1.1.3.1. Echo as development

The echo is a specific figure of my musical style. The infinite repetition of the fragment of a melody and its irregular variations characterizes a typology of fragmentation that engenders repetitions and developments.

In *Le Cose*, echo is the starting point of a development based on repetitions (Figure 72). The repeated note interacts with fragments of past events. Things posed at the beginning of the piece interact, *recomposed* in a dynamic space. Repetition is applied through different elements, for instance a high note with a slight vibrato (Figure 73). Another variation of the detached echo typology is the “*ninna nanna*” - lullaby in *Le Cose* (Figure 74). The last element of the piece is characterized by the resonance of the body of the violin: the tuning fork resonates the body of the violin (Figure 75) s effect is also a variation of the “echo-like” figure.



Figure 72: *Le Cose*, bars 154-155

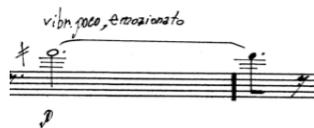


Figure 73: *Le Cose*, vibrato



Figure 74: *Le Cose*, bars 201-202



Figure 75: *Le Cose*, bars 227-228

The fragmentation in horizontal space is based on the prolongation of values and procedures of echoing of the thematic elements. With the horizontal fragmentation I detach the elements of the theme using repetition as an element in itself. This melodic treatment is used to create a horizontal perspective around the theme.

*Vertical* fragmentation is used to construct the harmonic context of the piece, fragmenting the theme in contrasting registers. *Horizontal* fragmentation has a similar role in the melodic process. Both techniques are used to deviate from the central material. Vertical fragmentations are applied in *unpressured* sections, while the register fragmentation is used in the directional, pressured sections of my pieces. My themes are microstructures reduced to single registers and values that define the starting point of the deviations resulting from the application of the development categories to the theme.

### 2.1.1.2. Fragmentation processes in *Le Cose*

*Le Cose* is the piece that best shows the process of fragmentation. The piece is conceived as a collection of “things” and is composed following this rhapsodic collection ordered around an accumulative invention of themes.<sup>18</sup> The piece presents an extremely complex web of echoes, repetitions, and transpositions of the basic thematic elements.

The process of composition is based on the enunciation of the thematic idea and its following fragmentations through three typologies of process:

1. *deviations from the main idea by :*
  - a) *(ib) different degrees of shifting;*
  - b) *(iba) elaboration of internal elements through transposition and shifting;*
  - c) *(ibb) introduction of external elements that contradict the original profile;*
2. *combination in different order of the basic elements of the principal idea;*
3. *prolongation of melodic functions.*

The first three pages are characterized by the *first theme*, bars 1-51. It is defined by two contrasting elements delineating two profiles: a linear descending Maj **seventh**<sup>+19</sup> followed by an ascending **min seventh** -, and two affirmative chords based on a **min ninth** and a **Maj seventh** + (Figures 76

---

<sup>18</sup> The piece is composed of 115 fragments.

<sup>19</sup> + quarter tone higher; - quarter tone lower

and 77).



Figure 76: *Le Cose*, beginning

The two ideas are presented separately: the first one at the beginning is followed by the enunciation of the fragmentation, the second one is introduced gently at the end of the first page of the score.



Figure 77: *Le Cose*, second element first theme

The first phrase, bars 1-5, presents the first subject and two different types of echoes: (i) repetition of the last note of the subject slightly shifting it, simulating the effect of the echo, (ii) echoing the first part of the subject transposing it one octave lower.

Measures six and seven are conceived as echos of the first echo, transposing it one octave higher. That fragment anticipates the literal representation of the last part of the first subject, repeating the following echo in bars 8 and 10 (Figure 78).



Figure 78: *Le Cose*, bars 8-10

Bars 11 and 13 present, transposed, the intervallic material of the beginning. At bars 14-22 the second part of the first subject is presented: a double stop based on the **minor ninth** is echoed in bars 14-19; the second double stop is played at bar 20 and echoed until bar 22 (Figure 79).



Figure 79: *Le Cose*, bars 14-19

From bar 23 until bar 51 the first subject is fragmented following the processes enunciated previously. The principal process of that section is the continuous generation of *echoing*, *mirroring* and *transpositions*. Each transformed element of the theme could become, ideally, the central subject of a new part. Thus the form is based on associations of ideas .

Bars 23 to 25 are variations of the coda of the presentation of the first idea at bars 11 to 13: the first note is shifted a quarter-tone lower, transposing the

second note of bar 11; the second note stands for the **G +** of the beginning, bars 1 and 5, replacing the **C +** transposed at the beginning of bar 26. Bars 26 to 29 are echoed in the second double stop of the second part of the main subject: echoes are prolongations of the notes at the same register or transposed an octave higher, as at bars 28 and 29 (Figure 80).



Figure 80: *Le Cose*, bars 28-29

At bars 29 to 31 the interval that characterizes the second half of the first idea of the theme is varied (Figure 81)



Figure 81: *Le Cose*, bars 28-29

Bars 32 and 33 present for the first time two different timbres that will be used to deviate from the strict development of the idea: a long **C +** *sul tasto* dark timbre, as a variation of the previous **C +**, and a noisy double stop in the high register, *molto sul ponticello*, *ppp*, based on the first double stop of the second part of the initial subject.

Bars 34-36 are echoes of the high double stop at bar 33. At bars 37 to 38

the subject is transposed an octave higher, echoed after, and followed by its transposition and repetition at bars 39 to 43.

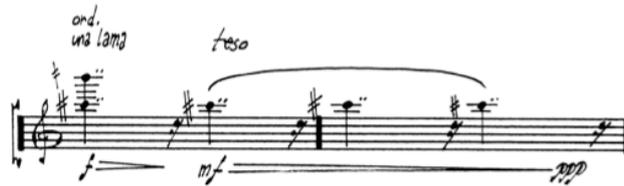


Figure 82: *Le Cose*, bars 39-43

Bar 44 echoes bar 11. Bars 45 and 46 echo the echo played at bar 40. Bar 40 echoes bar eleven, transposing it from the echoed note and reducing the interval; the following two bars, 48 and 49, echo the echo of the beginning. The **B** at bar 50 anticipates the second subject, based on a minor seventh, which ideally follows the second double stop of the second part of the first subject. The second subject is enunciated at the end of the first section, bar 51.

This short description of *Le Cose* shows the complexity of relationships between the elements and the thematic fragmentation in the vertical and horizontal space in the context of the *un-pressured* behaviour.

## 2.2. Pressured

As Smalley claims, the *pressured* behaviour aims to create a fictional causality in which each event “seems to cause the onset of the successor”.<sup>20</sup> This fictional essence is assumed in my music in the formal construction of the pieces: the categories of *causality* and *consequentiality* are dialectical elements in my compositional method.

If fragmentation processes characterized the un-pressured behaviour, pressured configurations are characterized by concentration, accumulation and compression-reduction of values. *Un-pressured fragmentation* is based on prolongation of values, while *pressured* accumulation is characterized by horizontal compression and reduction of values. In the next paragraphs I will highlight the application of these smalleyan categories in my pieces.

Spectromorphology is not a compositional theory or method, but a descriptive tool based on aural perception. It is intended to aid listening, and seeks to help explain what can be apprehended in over four decades of electroacoustic repertory. How composers conceive musical content and form – their aims, models, systems, techniques, and structural plans – is not the same as what listeners perceive in that same music. What the composer has to say (in programme notes, talks, sleeve

---

<sup>20</sup> D. Smalley, “Spectromorphology: explaining sound-shapes”, *Organised sound*, 2 (2), 1997, p. 12: “In motion passage, the *voluntary-pressured continuum* expresses how one context or event yields to the next. We are reminded that such questions as the degree of motion coordination, the energy-motion trajectory of gesture, the pressuring urgency of onset rates, and the type of motion are strong determinants. *Causality*, where one event seems to cause the onset of a successor, or alter a concurrent event in some way, is an important feature of acousmatic behaviour. The arrow leading from the voluntary-pressured continuum shows that causality can be weaker or stronger, depending on the influence or impact one spectromorphology has on another. On the whole, a strongly causal music relies on gesture, and impact-coordination points which will be regarded as goals in the structure.

notes) is not unimportant, and it undoubtedly influences (both helping and impeding) the listener's appreciation of music and musical ideas, but it is not always perceptually informative or relevant.

Although spectromorphology is not a compositional theory, it can influence compositional methods since once the composer becomes conscious of concepts and words to diagnose and describe, then compositional thinking can be influenced, as I am sure my own composing has been. In the confusing, wide-open sound-world, composers need criteria for selecting sound materials and understanding structural relationships. So descriptive and conceptual tools which classify and relate sounds and structures can be valuable compositional aids.<sup>21</sup>

Spectromorphology isn't a compositional theory, but it is a strong conceptual tool that allows to understand the musical relationships of the musical objects via the experience of sound reception. In this sense spectromorphology helped me to become aware of the perceptive results of my compositional choices.

### **2.2.1. Horizontal compression**

In *Celestografia*, from bar 105 to 146 there is an accumulation process divided in three parts characterized by three states of the material that augment the degree of directionality and the compression of values, passing from a quaver to a triplet quaver tremolo (Figure 83). The scale fragment is repeated, then accelerated, granulated until it brings the listener to the following state of the progression: the violins repeat a pattern of six notes ascending in registers and viola and cello profile a line in counterpoint, bars 126-138 (Figure 84).

---

<sup>21</sup> D. Smalley, *op.cit.* p. 107

T° II (♩ = 78 ca.)

109 *mp* *pp* *p* *mp mp* *mf* *mf* *p* *mf* *mf* *p*

S  
do ve sei? do ve sei? sei do ve se e i se e i

Vln. I  
*p*

Vln. II  
*p*

Vla.  
*p*

Vc.  
*p* *pp* *mf* *p*

Figure 83: *Celestografia* development, values reduction progression

126 *mf*

S

Vln. I  
*ff* *p* *p* *ff*

Vln. II  
*p* *ff* *p* *ff*

Vla.  
*p* *ff* *sfpp* *p*

Vc.  
*p* *ff* *p* *solo sottovoce ma presente*

Figure 84: *Celestografia*, bars 126-127

The following element is characterized by the development of a more complex texture, bars 138-145. This *pressured* process is characterized by a progression. The tension augments with the repetition of the ascending scale, the acceleration of tremolo and the paroxysm of string writing. The pressured passage is then characterized by the transition through three different states of a similar repeated material.

The evolution of this pressured section brings us to a dynamic energetic state characterized by an amount of energy that is reached through a *pressured* progression, repetition and progressive linear reduction of the values played. The *pressured* texture is constructed with the directionality of the repetition of patterns based on minor second intervals multiplied in the multiplicity of registers.

A similar strategy is applied in *La Visione delle Cose*. The developments are based on contrasts between different pressured textures based on the accumulation of micro-gestures. The causality is created by the repetition and the regular ascensions of the strings and the accumulation of figures (Figure 85). In the same piece, *pressured* events are constructed around repetitions and linear developments, bars **241-273** for instance, and gesture explosions, bars **293-300** (Figure 86).

Musical score for *La Visione delle Cose*, page 43, measures 262-263. The score includes parts for B. Cl., e.Gtr., Perc., Vln., Vla., Vc., and C.S. The score is marked with various dynamics and performance instructions.

- B. Cl.:** Measure 262 starts with a circled measure number 262. The part begins with a *ff* dynamic and a long note with a slur extending into measure 263.
- e.Gtr.:** Measure 262 starts with a circled measure number 262. The part begins with a *ff* dynamic and a long note with a slur extending into measure 263. In measure 263, there is an *e-bow* instruction and a *pp* dynamic marking.
- Perc.:** Measure 262 is mostly empty. In measure 263, there is a *gong* instruction and a *fff* dynamic marking, followed by a *p* dynamic marking.
- Vln.:** Measure 262 starts with a circled measure number 262. The part begins with a *p* dynamic and a long note with a slur extending into measure 263. In measure 263, there is a *fff* dynamic marking.
- Vla.:** Measure 262 starts with a circled measure number 262. The part begins with a *f* dynamic and a long note with a slur extending into measure 263. In measure 263, there is a *pp* dynamic marking.
- Vc.:** Measure 262 is mostly empty. In measure 263, there is a *p* dynamic marking and a long note with a slur extending into measure 264.
- C.S.:** Measure 262 starts with a circled measure number 262. The part is mostly empty in both measures.

Figure 85: *La Visione delle Cose*, page 43

*Violento rubato*

♩ = 90

290

B. Cl. *p* *f* *p* *ff*

290

e.Gtr.

290

Perc. *gong* *ff* *vibra* *mp*

*Suivre le dessin et garder la dynamique du geste.  
N'hésitez pas à perdre le contrôle des hauteurs si le geste le demande.*

Vln. *ff* *mf* *detaché*

Vla. *ff* *mf* *detaché*

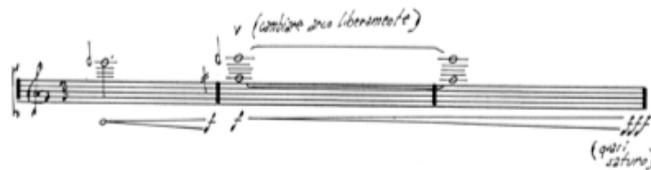
Vc. *ff* *mf* *detaché* *p*

290

C.S.

Figure 86: *La Visione delle Cose*, bar 293

*Pressured* textures also characterize smaller scale events as in *Le Cose* (Figure 87). In this event the crescendo becomes an element of strong tension with a long and very tense progression on a double-stop similar to the figures that characterizes *Ritratto Voce's* central transition. The same acceleration appears in *Tre Case* as a short accumulation event (Figure 88). Another form of pressured event is based on dynamic directionality in *Tre Case* (Figure 89).



**Figure 87:** *Le Cose*, page 9

In *Tre Case* pressured movement is created in accumulating dynamic energy, doubling single notes. This kind of smaller pressured event has a common ground: the explosion of figures and gestures, the concentration or repetition of smaller elements of the themes.

In *La Visione delle Cose*, a gestural pressure with accumulation based on the reduction of values, from quaver to triplet quaver, characterize the end of the central section (Figure 90).

A similar accumulative process is applied in the final section of *Tre Case* (Figure 91). The example from *La Visione delle Cose* is characterized by the reduction of values and in *Tre Case* by the dynamic direction from **mp** to **ff**. Also in the beginning of *Four Walls* the progression is made on registral expansion and reduction of rhythmic (Figure 92).

Figure 88 is a musical score for a section titled "Tre Case, pressured event". It consists of five staves: Clarinet (Cl.), Piano (Pno.), Violin (Vln.), Viola (Vla.), and Violoncello (Vc.). The score is marked with a circled number 100. The Clarinet part has dynamic markings of *p*, *ff*, *p*, *ff*, *mf*, and *ff*, with "slap" markings above the notes. The Piano part has dynamic markings of *f*, *ff*, and *ff*. The Violin and Viola parts have dynamic markings of *mf*, *ff*, *pp*, *ff*, *fff*, *mf*, and *ff*. The Violoncello part has dynamic markings of *ff* and *ff*, with a "detache" marking above the notes.

Figure 88: *Tre Case*, pressured event

Figure 89 is a musical score for a section titled "Tre Case, pressured dynamic event". It consists of five staves: Clarinet (Cl.), Piano (Pno.), Violin (Vln.), Viola (Vla.), and Violoncello (Vc.). The score is marked with a circled number 100. The Clarinet part is mostly silent. The Piano part has dynamic markings of *pp*, *mf*, *poco*, and *f*. The Violin and Viola parts have dynamic markings of *ppp*, *mf*, *p*, *pp*, and *fff*. The Violoncello part has dynamic markings of *<f* and *pp*.

Figure 89: *Tre Case*, pressured dynamic event

The musical score for Figure 90, titled "La Visione delle Cose," covers bars 397 to 401. The score is arranged in a vertical system with the following parts and markings:

- B. Cl. (Bass Clarinet):** Starts at bar 397 with dynamics *mf*, *mf*, *ff*, *ff*, and *p*.
- e. Otr. (Euphonium):** Starts at bar 397 with dynamics *pp*, *ff*, and *mp*. Includes the instruction "slap" above a note.
- Perc. (Percussion):** Starts at bar 397 with dynamics *ff*. Includes the instruction "hard mallet vibra" above a note and "gong" below a note.
- Vln. (Violin):** Starts at bar 397 with dynamics *mp*, *p < f*, *f*, *f*, *ff*, *mf*, *ff*, and *ppp*. Includes the instruction "detaché" above the staff.
- Vla. (Viola):** Starts at bar 397 with dynamics *ff*, *mp*, *fff*, *ff*, *mp*, *p < f*, *ff*, *f*, and *p < ff*. Includes the instruction "detaché" above the staff.
- Vc. (Violoncello):** Starts at bar 397 with dynamics *mp*, *f*, *ff*, *p*, *pp*, and *ff p*. Includes the instruction "detaché" above the staff.
- C.S. (Cello):** Starts at bar 397 with dynamics *pp* and *ff p*.

Figure 90: La Visione delle Cose, bars 397-401

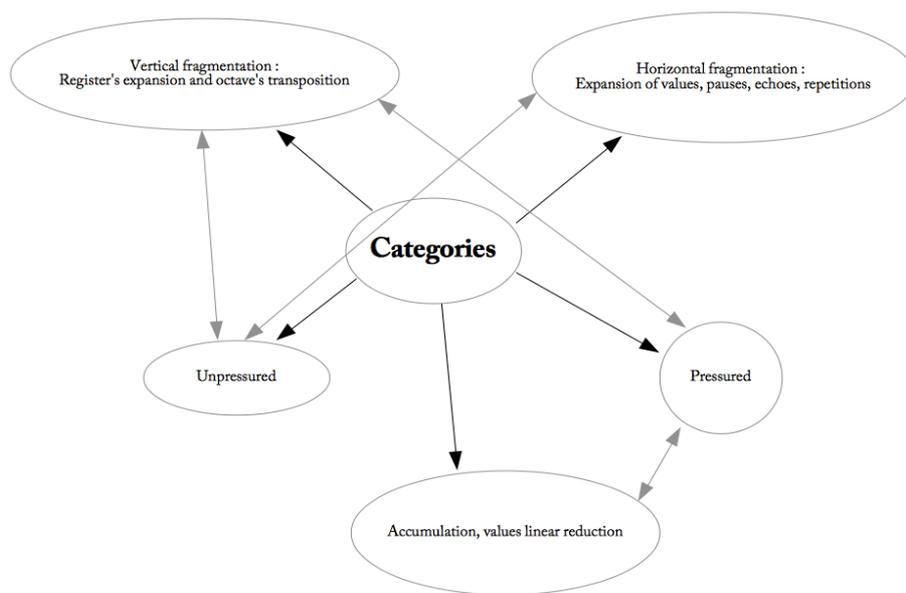
The image shows a musical score for five instruments: Clarinet (Cl.), Piano (Pno.), Violin (Vln.), Viola (Vla.), and Violoncello (Vc.). The score covers bars 193 to 195. The Clarinet part has a circled '190' at the beginning. The Piano part has a circled '190' and includes dynamic markings like *ff* and *mp*. The Violin part has a circled '190' and includes dynamic markings like *mf*, *mp*, *ff*, *f*, and *ff*. The Viola part has a circled '190' and includes dynamic markings like *mf*, *mp*, *ff*, *mf*, and *f*. The Violoncello part has a circled '190' and includes dynamic markings like *mf* and *ff*. The score includes various musical notations such as notes, rests, slurs, and dynamic markings.

Figure 91: *Tre Case*, bars 193-195

The image displays a musical score for two pianos, Piano 1 and Piano 2, in the piece 'Four Walls'. The score is divided into two systems. The first system includes the instruction *Impromptu rubato meravigliato sempre* and *loco*. Piano 1 starts with a *p* dynamic, followed by *mp* and *p*. Piano 2 starts with a *p* dynamic. The second system shows Piano 1 with dynamics *p*, *mf*, *f*, and *pppp*. Piano 2 has dynamics *f*, *p*, and *f*. Performance markings include *lento* and *largo*. The score uses standard musical notation with treble and bass clefs, dynamic markings, and phrasing slurs.

Figure 92: *Four Walls*, beginning accumulation

There are two main categories of *pressured* space. The first one is the large-scale process in which linear events are connected to a simulation of connection. The second one is the smaller scale event in which small events accumulate tension in order to achieve an explosion of the material from the gestural and harmonic point of view. Causality is related with directionality that is defined by reduction or expansion of rhythmic values, ascending profiles and dynamic accumulation. These categories interact freely around the material (Figure 93).



**Figure 93:** circular dialectics in abstract categories

### 3. Conclusion

The reductive simplicity of the starting material increases the possibilities of manipulation of the material. For that reason, the elements are the most simple and clear. To compose the reduction and improve the complexity of the perceptive result of the musical form I stress the concepts of injection and projection, making a link between the harmonic qualities of the themes, development strategies and textural typology.

The fixed repeated elements of the composition emerge as anchors for invention: I try to follow the material suggesting its possible temporalities, in the sense of the notion of “form-bearing” element.<sup>22</sup> This metaphor brings me to the development of my rhapsodic compositional approach, defining a material that conforms to my compositional categories. Through this approach I try to know the material through the unveiling of my subjective interaction with it. The composition becomes, in this sense, a method of research of my subjective abstract categories in the interaction with a material that is chosen by me. This research is embedded in the path of composing.

The hazard that accompanies my compositional choices is balanced by an objective manipulation that analyzes the reasons of my instinctive choice. I try to preserve the radical instinct and the radical construction. In this sense I aim to analyse the rational with the irrational and vice-versa.

The thematic approach allows a double preservation of the objectivity of the musical material and the subjectivity of my movement inside the

---

<sup>22</sup> Marie-Elisabeth Duchez, “An historical and epistemological approach to the musical notion of “form-bearing” element”, *Contemporary Music Review*, pp. 199–212.

material. Although these sensations are part of general compositional sensations, they are more than that as, in my music, they constitute the very core of my poetical motivation.

The themes and categories that I try to reveal insert my compositional activity in a larger context. The horizon provided by the image of the piece guides my musical choices, which I try to define in the most precise and necessary manner: I try to find the piece. The free open space based on the chaotic dimension of experience finds a momentary order in the continuous process of disambiguation of which music is part. The processes of “tuning” and “retuning” are not rhetorically filled in the composition but instead give the concrete fundamentals that form the basis of my compositional work. I try to grasp the moment in which the whole composition appears coherent, trying to suspend that instant before it disappears in the chaotic stream of connections.

The recursive process of my compositions is to start from complexity to arrive to the simplest elements that characterize this complexity; they are the result of this reduction, which is the consequence of a necessary need for clarity. I try to reduce the whole to the last element of the piece, objective and subjective, purely acoustical and purely emotional, trying to touch the matter that constitutes the material and to create the most direct path to the piece.

Looking at the compositional process from this perspective, composition is an act of conscious expansion of acoustic awareness through the existential experience. Therefore music could be considered as a *transparent mirror* that reflects the internal and external experience, allowing a continuous superposition of these two dimensions. In a nutshell, the final position of

that interstice, the internal and the external experience, is the place where the piece of music is generated.

In that sense my music is an attempt to represent and indicate my transparent mirror. My music is a mirrored double representation of the internal experience of sound by means of its external definition. Time is conceived as the internal experience that achieves an intersubjective dimension in the compositional process. Therefore *time* and *space* interact towards the acoustic medium, taking the subjective and the objective to a larger dimension. This existential relationship of me as subject and the objectivity of sound itself creates the two poles of my musical creativity whereby the absence of the subjective underlines the presence of the objective and vice versa. This dialectic is defined, technically, by oppositional categories that inform my compositional research: presence and absence, continuity and discontinuity, addition and subtraction, homogeneity and heterogeneity, subjective and objective, pressured and un-pressured. My music could be interpreted as the result of the challenge between the internal and the external representations of sound.

This analytical presentation of the characteristics of my works could lead to new perspectives based on a study of my technical choices. I have tried to fix the points that constitute the first bricks of a deeper understanding of philosophical questions that inform my composing practice. It is difficult to clearly analyse these problems because of the invisible and unrepresentable nature of the experiences considered in the analysis. In fact, music carries the correct form of expression of these perspectives, compensating for the lack of vocabulary possibilities of the rational discourse. This research constitutes the first attempt to shed light on how I can achieve a perspective closer to this unspeakable.



## Analytical Index

Accumulation.....	29, 37, 44, 70, 72, 75, 79p.
Autoritratto.....	7, 19p., 35pp., 39, 44, 58p.
Category.....	45pp., 49
Causality.....	45, 47p., 70, 72, 80
Celestografia.....	6, 16, 30
Compression.....	13, 49, 70
Continuity.....	13, 28, 53, 83
Development.....	1, 11, 21, 26, 28, 30, 34p., 37pp., 44, 46, 52, 58, 63, 65, 69, 71p., 81
Dialectics.....	5, 13, 34, 80, 83, 86
Dilatation.....	13, 44
Directionality.....	14, 30, 32, 44, 46pp., 52p., 56, 58, 70, 72, 75, 80
Discontinuity.....	13, 83
Due Parole (Endeared III).....	8, 20, 55, 58, 60, 62
Dynamic.....	11, 30, 34, 37, 41, 47, 50, 63, 72, 75p., 80p.
Endeared II.....	7, 18, 54, 61
form...2p., 5pp., 12pp., 16, 24, 26, 30, 34p., 37, 43p., 46, 48, 58, 60, 68, 75, 81pp., 86p., 90pp.	
Form.....	11, 90p.
Four Walls.....	10, 25, 75, 79
Fragmentation.....	29, 44, 48pp., 49, 52p., 53 55pp., 58, 60p., 63pp., 66, 70
Horizon.....	11, 13, 82
Horizontal.....	31, 45pp., 58, 60, 64

Injection.....	11, 28, 43p., 81
Interval.....	12pp., 16pp., 25p., 30pp., 34, 37, 41, 46, 53, 67pp., 72
La Visione delle Cose.....	9, 24, 41p., 44, 57, 72pp., 77
Le Cose.....	7, 16, 21, 24, 44, 53, 55, 58, 63, 66, 70, 75
Material.....	5, 11pp., 14, 20, 24, 26, 28, 34, 43pp., 48p., 53, 65, 67, 70, 72, 80pp.
Multiplication.....	15, 44
Pressured.....	13, 30, 45pp., 70, 72, 75, 76, 80
Process.....	5, 12p., 17, 21, 28, 37, 43, 48pp., 49, 53, 60, 65p., 68, 70, 72, 75, 80pp., 87, 92
Projection.....	11, 13, 24, 35, 43p., 44, 81
Propriocentric.....	13
Reduction.....	14, 49, 70, 72, 75, 80pp.
Representation.....	13, 67, 83, 87p., 92
Ritratto Voce.....	6, 15, 28, 30p., 58
Smalley.....	13, 45pp., 70, 92
Spectromorphology.....	13, 45, 46p, 47
Structure.....	5, 12pp., 21, 28, 34, 48, 50, 65, 90
Thematic.....	5, 11pp., 14, 21, 26, 28, 34, 44pp., 48pp., 56, 64, 66, 70, 81
Theme.....	5, 12pp., 13, 25pp., 26, 34p., 39, 41pp., 46, 48pp., 49, 53, 57, 60, 64pp., 75, 81p.
Tre Case.....	9, 25, 60, 63, 75p.
Un-pressured.....	13, 45pp., 48, 53, 70, 83

Variation.....	12, 28, 37, 44, 53, 58, 60, 63p., 68p.
Vertical.....	31, 39, 45pp., 52p., 53, 55pp., 60p., 65, 70, 87
Visioni.....	3, 8, 21pp., 32, 39p., 52, 56, 58

## Bibliography

- Adorno, Theodor, *Negative Dialectics*, Frankfurt am Main, Suhrkamp Verlag, 1970.
- Agostini, Andrea, *Legno Sabbia Vetro Cenere*, 2010.
- , *Start Making Sense*, 2013.
- Bayle, François, *Musique acousmatique: propositions, positions*, 1993.
- Benjamin, Walter, *L'oeuvre d'art à l'époque de sa reproductibilité technique*, Paris, Gallimard, 2000.
- Blondeau, Thierry, *Pics*, 2012.
- Borio, Gianmario, "Morton Feldman and Abstract Expressionism. Time and sound construction in his piano miniatures of the 1950s and 1960s", *Musikalische Avantgarde um 1960. Entwurf einer Theorie der informellen Musik*, Laaber, Laaber Verlag, 1993.
- Born, Georgina, "On Musical Mediation: Ontology, Technology and Creativity", *Twentieth Century Music*, 2005.
- Bosco, Gilberto, *Fumo e cenere*, Suvini Zerboni, Milan, 2006.
- Bregman, Albert S., *Auditory Scene Analysis. The perceptual organisation of sound*, MIT Press, 1994.
- Brown, Steven, "Contagious Heterophony: A new theory about the origins of music", *Musicae Scientiae*, 2007.
- Cadoz, Claude, *Les réalités virtuelles: Un exposé pour comprendre, un essai pour réfléchir*, Flammarion, 1994.
- Cage, John, *Cheap Imitations*, Peters Editions, New York, 1977.
- , *Sixty-Eight*, Peters Editions, New York, 1992.
- Carter, Elliot, *La dimension du Temps*, Geneva, Contrechamp, 1998.
- Casati, Roberto, Jérôme Dokic, *La philosophie du son*, Jacqueline Chambon, 1998.

- , «Sounds», 2010.
- Castaldi, Paolo, *Anfrage*, Milan, Ricordi, 1963.
- , *Nove ritratti dal novecento storico*, 2000.
- , *A Fair Mask*, 2004.
- Castiglioni, Nicolò, *Inverno In-Ver*, Ricordi, Milan, 1973-78.
- Cendo, Raphael, *Rokb*, 2012.
- Chion, Michel, *Promeneur écoutant: essais d'acoulogie / Michel Chion*, Editions Plume, 1993.
- Clark, Andy, *Supersizing Mind: Embodiment, Action and Cognitive Extension*, New York, Oxford University Press, 2008.
- Clarke, Eric, "The Impact of Recording on Listening", *The Impact of Recording on Listening*, vol. , fasc. 4/1. Twentieth Century Music, s.d., pp. 47-70.
- , *Ways of Listening*, New York, Oxford University Press, 2005.
- Cook, Nicolas, "Between Process and Product: Music and/as Performance", *Music Theory Online*, 2001.
- DeNora, Tia, *After Adorno. Rethinking Music Sociology*, Cambridge, Cambridge University Press, 2003.
- Derrida, Jacques, *La voix et le phénomène*, Paris, PUF, 1967.
- Diez-Fisher, Santiago, *Como solo podian sus ojos*, 2013.
- Dixon, Steve, *Digital Performance. A History of New Media in Theater, Dance, Performance Art, and Installation*, Cambridge, MIT Press, 2007.
- Duchez, Marie-Elisabeth, «Des neumes à la portée. Elaboration et organisation rationnelles de la discontinuité musicale et de sa représentation graphique, de la formule mélodique à l'échelle monocordale», *Revue de musique des universités canadiennes*, 1983.
- , "La notion musicale d'élément "porteur de forme". Approche historique et épistémologique", *La musique et les sciences cognitives*,

- IRCAM, Mardaga, 1988.
- , “La representation spatio-verticale du caractere musical grave-aigu et l’elaboration de la notion de hauteur de son dans la conscience musicale occidentale”, *Acta musicologica*, 1979.
- Dufourt, Hugues, *Mathesis et subjectivité. Des conditions historiques de possibilité de la musique occidentale. Essai sur les principes de la musique I*, Paris, MF, 2007.
- Einarson, Einar Torfi, *Nine Tensions*, 2008.
- Emmerson, Simon, “Acoustic/Electroacoustic: The Relationship with Instruments”, *Journal of New Music Research*, 1998.
- , “La poétique du “live” en musique électroacoustique”, *RFIM*, vol. n° 2 - automne 2012, s.d.
- , “Live versus Real”, *Contemporary Music Review*, vol. 10:02, 1994, pp. 95–101.
- , *Music, Electronic Media and Culture*, Aldershot, Ashgate, 2000.
- Fedele, Ivan, *Ali di Cantor*, Suvini Zerboni, Milan, 2004.
- , *Arco di Vento*, Suvini Zerboni, Milan, 2003.
- Feldman, Morton, “Between Categories”, *Contemporary Music Review*, 1988.
- , *Durations III*, Peters Editions, New York, 1961.
- , *For Franz Kline*, Peters Editions, New York, 1962.
- , *The O'Hara Songs*, Peters Editions, New York, 1962.
- , *De Kooning*, Peters Editions, New York, 1963.
- , *Between Categories*, New York, 1969.
- , *Patterns in a Chromatic Field*, Universal, London, 1981.
- , *Three Voices*, Universal, London, 1982,
- , *Crippled Symmetry*, Universal, London, 1983.
- , *For Philip Guston*, Universal, London, 1984.
- , *Piano and String Quartet*, Universal, London, 1985.

- , *Coptic Light*, Universal, London, 1986.
- , *A very short Trumpet Piece*, Universal, London, 1986.
- Gallese, Vittorio, Thomas Metzinger, “Motor ontology: the representational reality of goals, actions and selves”, *Philosophical Psychology*, 2003.
- Gervasoni, Stefano, *Due poesie francesi di Ungaretti*, Suvini Zerboni, Milan, 1992.
- Ghisi, Daniele, *Abroad*, Ricordi, Milano, 2011.
- Gibson, James, “The Theory of Affordances”, *In Perceiving, Acting, and Knowing*, Hillsdale, New Jersey, Lawrence Erlbaum Associates Publishers, 1977.
- Godoy, Rolf Inge, “Gestural Affordances of Musical Sound”, *Musical Gestures. Sound, Movement, and Meaning*, 103–125, New York, Routledge, New York, 2010.
- Goehr, Lydia, *The Imaginary Museum of Musical Works, An Essay in the Philosophy of Music*, Oxford, Clarendon Press, 1992.
- Grimaldi Raffaele, *Anti-Diotima*, Rai Trade, Roma, 2011.
- Grisey, Gérard, *Partiels*, Ricordi, Milan, 1974.
- , *Périodes*, Ricordi, Milan, 1975.
- , *Vortex Temporum*, Ricordi, Milan, 1996.
- , *Quatre chants pour franchir la seuil*, Milan, Ricordi, 1998.
- Gurney, Edmund, *The power of sound*, London, Smith, Elder, 1880.
- Handel, Stephen, *Listening: An Introduction to the Perception of Auditory Events*, A Bradford Book, 1993.
- Hermann, Thomas, Andy Hunt, John G. Neuhoff, *The Sonification Handbook*, Berlin, Logos Publishing House, 2011.
- Husserl, Edmund, *The phenomenology of internal time-consciousness*, Indiana University Press, 1964.
- Imberty, Michel, *La musique creuse le temps: de Wagner à Boulez*, Paris,

- L'Harmattan, 2005.
- Ingarden, Roman, *Qu'est-ce qu'une œuvre musicale?*, Paris, Christian Bourgois Éditeur, 1989.
- Jankélévic, Vladimir, *La musique et l'ineffable*, Paris, Seuil, 1961.
- Kojs, Juraj, "Notating Action-Based Music", *Leonardo Music Journal*, 2011.
- Langer, Susanne, *Feeling and Form*, New York, Routledge & Kegan Paul, 1979.
- , *Philosophy in a New Key*, Mentor Book, 1948.
- Leman, Marc, *Embodied Music Cognition and Mediation Technology*, MIT Press, 2007.
- Leopardi, Giacomo, *Zibaldone di pensieri*, Milano, Mondadori, 2004.
- Levinson, Jerrold, "Autographic and Allographic Art Revised", *Music, Art and Metaphysics*, 89–106, Oxford, Oxford University Press.
- , "Hybrid Art Forms", *Journal of Aesthetic Education*, 1984.
- Ligeti, György, "La forme dans la musique nouvelle", Geneva, Contrechamp, 2001.
- Mace, William M., "James J. Gibson Strategy for Perceiving: Ask Not What's Inside Your Head, but What your Head's Inside Of", 43–67, Hillsdale, New Jersey, Lawrence Erlbaum Associates Publishers, 1977.
- Mache, François B., *Music, Myth and Nature: Or the Dolphins of Arion*, Chur, Harwood Academic Publisher, 1992.
- Matheson, Carl, Mel Caplan, «Ontology», *The Routledge Companion to Philosophy and Music*, 38–48, Routledge, New York, 2012.
- McAdams, Stephen, "Contraintes psychologiques sur les dimensions porteuses de la forme en musique", *La musique et les sciences cognitives*, IRCAM, Mardaga, 1988.
- Momi, Marco, *Iconica II*, Nuova Stradivarius, Milan, 2009.

- Murail, Tristan, *Désintégration*, Lemoine, Paris, 1982.
- Namur, E., *The Analysis and cognition of Basic Melodic Structures*.
- Nijs, Luc, Micheline Lesaffre, Marc Leman, “The musical instrument as a natural extension of the musicians”, al Fifth Conference on Interdisciplinary Musicology, Paris, 2009.
- Noe, Alva, *Action in perception*, Cambridge, MIT Press, 2004.
- Nono, Luigi, *Due espressioni*, Ars Viva, Munich, 1953.
- , *...sofferte onde serene...*, Milan, 1976.
- , *Fragmente-Stille an Diotima*, Milan, 1980.
- , *Das atmende Klarsein*, Milan, 1983.
- , *Prometeo*, Ricordi, Milan, 1984.
- , *A Carlo Scarpa architetto*, Ricordi, Milan, 1985.
- , *Caminantes...Ayacucho*, Ricordi, Milan, 1987.
- , *La lontananza nostalgica utopica futura*, Ricordi, Milan, 1988.
- Nudds, Mathew, Casey O’Callaghan, *Sound and Perception. New Philosophical Essays*, New York, Oxford University Press, 2009.
- Nunes, Emmanuel, “Préalables à une lecture “musicale” de Husserl”, *Revue Filigrane*, 2010.
- O’Callaghan, Casey, “Constructing a theory of sound”, *Oxford Studies in Metaphysics*, 2009.
- , “Sounds and Events”, vol.1 *Sounds and Perception: New Philosophical Essays*, OUP, 2009.
- , *Sounds: a Philosophical Theory*, Oxford University Press, 2007.
- Patel, Aniruddh D., *Musical language and the brain*, New York, Oxford University Press, 2008.
- Pierce, John Robinson, *An Introduction to Information Theory. Symbols, Signals and Noise*, New York, Dover Publications, 1980.
- , *The science of musical sound*, W H Freeman & Company, 1992.

- Puckette, Miller, *The Theory and Technique of Electronic Music*, s.d.
- Richman, Bruce, «How Music Fixed “Nonsense” into Significant Formulas: On Rhythm, Repetition, and Meaning», *The Origins of Music*, 300–314, Cambridge, MIT Press, 2000.
- Ridley, Aaron, “Against Musical Ontology”, *The Journal of Philosophy*, 2003.
- , “Collingwood’s Expression Theory”, *The Journal of Aesthetics and Art Criticism*, 1997.
- , “Musical Sympathies: The Experience of Expressive Music”, *The Journal of Aesthetics and Art Criticism*, 1995.
- Romitelli, Fausto, *Natura morta con fiamme*, Ricordi, Milan, 1992.
- , *Professor Bad Trip I*, Ricordi, Milan, 1996.
- , *Amok-Koma*, Ricordi, Milan, 2001.
- , *Index of Metals*, Ricordi, Milan, 2003.
- Sarto, Andrea, *Come frecce nella tua mano*, 2010.
- Schaeffer, Pierre, *Traité des objets musicaux*, Editions du Seuil, 1966.
- Schopenhauer, Arthur, *The World as Will and Representation*, vol. ii, New York, Dover Publications, 1958.
- Sciarrino, Salvatore, *Quaderno di Strada*, Ricordi, Milan, 2003.
- Seeger, Charles, “The Music Process as a Function in a Context of Functions”, *Annuario*, 1966.
- Sève, Bernard, “Bords de l’oeuvre musicale”, *Aisthesis*, 2011.
- Simondon, Gilbert, “On the Mode of Existence of Technical Objects”, *Deleuze Studies*, vol. 5, fasc. 3, 2011, pp. 407–424.
- Smalley, Denis, “Space-form and the acousmatic image”, *Organised Sound*, vol. 12, fasc. 01, 2007, pp. 35–58.
- , “Spectromorphology: explaining sound-shapes”, *Organised Sound*, 1997.
- , “The Listening Imagination: Listening in the electroacoustic era”,

- Contemporary Music Review*, vol. 13:02, 1996, pp. 77–107.
- Smith, Julius O., “Viewpoints on the History of Digital Synthesis”, *Keynote Paper, Proceedings of the International Computer Music Conference, Montreal, pp. 1-10, Oct. 1991. Revised with Curtis Roads for publication in Cahiers de l’IRCAM*, 1992.
- Stockhausen, Karlheinz, *Mikrophonie II*, Universal Edition, Vienna, 1965.
- , *Stimmung*, Universal Edition, Vienna, 1968.
- , *Mantra*, Stockhausen Verlag, Kurten, 1970.
- , *Cosmic Pulses*, 2007.
- Stroppa, Marco, “Live Electronics or ...Live Music? Towards a critic of interaction”, *Contemporary Music Review*, 1999.
- , “Musical Information Organism: An Approach to composition”, *Contemporary Music Review*, 1989.
- Stumpf, Carl, David Tippet, *The Origins of Music*, Cambridge University Press, 2012.
- Takemitsu, Toru, *A string around Autumn*, Shott Music, Tokyo, 1988.
- , *From me Flows what you call Time*, Schott Music, Tokyo, 1990.
- Tomasello, Michael, *Origins of human communication*, Cambridge, MIT Press, 2008.
- Varela, Francisco J., Evan T. Thompson, Eleanor Rosch, *The Embodied Mind: Cognitive Sciences and Human Experience*, MIT Press, 1993.
- Veitl, Anne, “De nouvelles formes de musiques orales? Les technologies de la création musicale et le problème de l’écriture”, *Ecrire, décrire le son, Domaine de Kerguéhennec.*, 2003.
- , “Le logiciel Music V, technologie d’écriture musicale: rappels historiques et éléments d’analyse”, 2009.
- , “Musique sérieuse et informatique: la formation du domaine de “l’informatique musicale” en France», 2008.

- , “Musique, causalité et écriture: Mathews, Risset, Cadoz et les recherches en synthèse numérique des sons”, *Musique, Instruments, Machines*, 235–251, Paris, OMF-Paris IV Sorbonne, Bruno Bossis, Anne Veitl et Marc Battier, 2006.
- , “Notation écrite et musique contemporaine: quelles grandes caractéristiques des technologies numériques d’écriture musicale”, 2007.
- Wallin, Nils L., Bjorn Merker, Steven Brown, *The Origins of Music*, London, MIT Press, 2001.
- Webern, Anton, *Sechs Bagatellen*, op. 9, Universal Edition, Vienna, 1913.
- , *Five Pieces*, Carl Fischer, 1913.
- , *Fünf Stücken für orchester*, Universal Edition, Vienna, 1913.
- , *Symphonie*, op. 21, Universal Edition, Vienna, 1928.
- , *Quartet*, op. 22., Universal Edition, Vienna, 1930.
- , *Konzert*, op. 24, Universal Edition, Vienna, 1934.
- , *Streichquartet*, op. 28, Universal Edition, Vienna, 1938.
- , *II Kantate*, op. 31, Universal Edition, Vienna, 1943.
- Windsor, Luke, Christophe De Bézenac, “Music and affordances”, *Musicae Scientiae*, 2012.