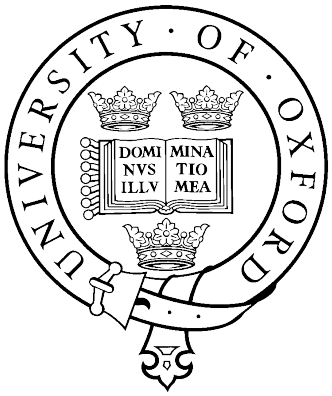
THE LISTENING SPACE:

CONCEPTION, PERCEPTION AND TEMPORALITY

IN THE MUSIC OF SALVATORE SCIARRINO



Giulia Monducci

St Hilda's College

University of Oxford

A thesis submitted in partial fulfilment for the degree of

Doctor of Philosophy

Michaelmas 2021

ACKNOWLEDGEMENTS

My first thanks go to my supervisors, Eric Clarke and Martyn Harry, for their invaluable support and precious advice over the years, and to my Transfer and Confirmation examiners — Robert Saxton, Daniel Grimley, and Laura Tunbridge — for their extraordinarily stimulating discussions and feedback.

I am immensely grateful to the Great Britain Sasakawa Foundation, Kojo Minta Memorial Fund, Muriel Wise Fund, PRS Foundation, Royal Music Association, Swedish Arts Grants Committee and to the University of Oxford, for generously providing me with the financial resources to conduct my research trips to Austria, Japan, Italy, Sweden, and Ukraine. Without their generous support my portfolio would not look remotely the same.

My warmest thanks go to my friends Eugene Birman, Leah Broad, Lina Guo, Nigel McBride, Isabel & Mark Preston for having made my stay at Oxford all the more enjoyable. And lastly, but by no means the least, my thanks go to my family and to my partner, Mattia Clera, without whose presence and support I most certainly would have neither started nor finished my doctorate.

CONTENTS / INDEX

Abstract ……..……1

1 Introduction ……..3

2 The Concept of Space and its Representations in Sciarrino ……...…13

2.1 *Spatiality and the Principles of Organization* ……..……..……13

2.2 *Spatiality and Temporality* ……17

Analyses of selected works ……..……..…..21

3 Sei quartetti brevi…….22

3.1 *Introduction* ……..…….22

3.2 *Sound objects and classification* ……..……...…24

3.3 *Formal strategies and principles of organization* ……..…..30

3.4 *The role of repetition and memory: form as a perceptual structure*…….…….……38

3.5 *Conclusions* ……..…….43

4 Allegoria della Notte…….……..……..45

4.1 I*ntroduction* ……..…….…….…45

4.2 *Allegoria della Notte*……..…….……46

4.3 *Sound Object Classification*……...…….……49

4.4 *The Role of the Indistinct in Perspective* ……...….57

4.5 *Window Form* ……..…….64

4.6 *On Temporality: the Role of Periodicity and Interference* ……...……..71

4.7 *Conclusions* ……..……..……..……81

5 Final Conclusions…….……84

Bibliography……..…..……..……86

Appendix…….……94

The Listening Space:

Conception, Perception and Temporality in the Music of Salvatore Sciarrino

ABSTRACT

My research focuses on the music of the Italian composer Salvatore Sciarrino (Palermo, 1947), with regard to how the concept of space relates to matters of sound and temporality. My thesis looks at theories of auditory perception and conceptual metaphor theory in order to provide a framework in which to analyze Sciarrino's music.

Chapter 1 and 2 are dedicated to introducing a short theoretical basis for conceptual metaphor theory and for auditory perception, with particular regard to the conceptualization of time and sound in relation to space. Sound is often mentioned in Sciarrino's writings in relation to parameters that refer to concepts of mass, atmospheric phenomena, and the accumulation of memories or experiences. It is my view that the concept of space relates to matters of sonority and temporality in his music on the basis of a combination of perception and representation. On the one hand his materials and sonority are constructed to mirror our experience of the physical world by means of common perceptual categories in vision and audition (e.g. proximity, continuity, similarity, etc.); on the other hand, temporality relies on time being conceptualized in terms of space, and therefore form is to be understood as a structure aimed at representing a given sound space, rendering the sound objects that are part of it as well as the relationships among them.

Chapter 3 and 4 each comprise an analysis of a chamber work (the first of *Sei quartetti brevi*) and an orchestra work (*Allegoria della notte*) with particular attention to notions of space and auditory perception, in order to illustrate Sciarrino's formal strategies, as well as

some traits and processes constitutive of his musical language. The analysis of the first of *Sei quartetti brevi* in Chapter 3 revolves around the different uses of Sciarrino's principles of organization in his own work, whereas the analysis of *Allegoria della notte* in Chapter 4 dives into a different instance of formal organization in order to highlight how and why some of his most typical compositional structures often hinge on processes of interference, periodicity and repetition. The analyses of these two works also clarify how our perceptual faculties and cognitive structures are at the basis of Sciarrino's compositional thought and how the concept of space is embedded in his music and influences it in the micro- and macro-structure through the integration of metaphorical thought and perception.

CHAPTER 1

Introduction

Over the last five decades, Sciarrino's music has stood out for his personal and distinctive musical style, often immediately recognizable for his subtle sonorities at the edge of silence and, perhaps for this reason, praised by many for his evoking timbral palette and masterful use of extended techniques in creating a recognizable sound world. For instance, in the words of Pietro Misuraca:

> Timbric experimentation is the goal of his virtuosity. The prevailing use of harmonic sounds and other subversive emission techniques make his sonorous material elusive, incorporeal, particularly close to noise: hence not sounds in the traditional sense, but ghosts and shades of sounds, systematically deprived of the attack and situated in a border zone between the *being* of the material and its *not-being*.[1]

In my view, however, his focus is not just sound, but rather an understanding of the mechanics of nature, as well as of the perceptual processes that allow us to experience reality in all its properties. His music rather seems to combine these two aspects to create, certainly also through sound, new music worlds:

> It is not a question of choosing sounds that are more or less appropriate, of beautifying one's home, but of "building new universes with new sounds".[2]

This way of composing aspires to a synthesis that puts mental representation and perception at the center of research and, at the same time, an understanding of the perceptual process that regulate the listening experience at the center of compositional poetics. This last aspect is not

---

1 Misuraca, Pietro: "Salvatore Sciarrino. The Sicilian Alchemist Composer". In *Interdisciplinary Studies in Musicology*, 12, Poznan, PTPN Poznań Society of Friends of Learning, 2012, p.73

2 Non si tratta di scegliere suoni più o meno appropriati, di abbellirsi la casa, quanto "coi suoni nuovi costruire nuovi universi". Sciarrino, Salvatore : *Carte da suono*, Palermo, Edizioni Novecento, 2001, p.139

common to all composers, especially not to those for whom the process is the work and the work does not refer to anything outside of itself, like Steve Reich for instance.[3] In Sciarrino the compositional materials are built to mirror structural aspects of the physical world (see § 2.1) as well as our experience of experiencing it with our senses and mind, by means of perceptual mechanisms and cognitive strategies. In this regard, Carlo Carratelli observes that Sciarrino's approach can be seen as one that elevates the listener's role from that of a passive receiver to that of an active participant – a cooperative interpreter of the work.[4]

Sciarrino's compositional strategies (e.g. anamorphosis, window form[5]) often rely heavily on perceptual properties and cognitive concepts. In his book *Le figure della musica da Beethoven a oggi*, Sciarrino's critical reflections aim at contextualizing contemporary art, whether musical or not, in continuity with that of the past, largely illustrated by means of parallels and references to the visual arts across several centuries, extending from Michelangelo to Alberto Burri. For instance, with regards to processes of accumulation, which we will see in detail in Chapter 2, Sciarrino compares a few random pages from *Gruppen* by Stockhausen to *Autumn Rhythm (Number 30)* and *Number 1, 1950 (Lavender Mist)* by Jackson Pollock.

Sciarrino's thought about the way music and fine arts are linked by virtue of a common conceptual framework is key to understanding the basis of his musical language. The comparison between the music and fine arts is set up on grounds of structural similarity and, as Giacco observes, its effectiveness is due to the fact that the principles of organization are

---

3 Sitsky, L. : *Music of the Twentieth-Century Avant-Garde: A Biocritical Sourcebook,* London, Greenwood, 2002, p.362

4 Carratelli, C. : *L'integrazione dell'estesico nel poietico nella poetica musicale post-strutturalista. Il caso di Salvatore Sciarrino, una "composizione dell'ascolto"*, Università di Trento – Université Paris Sorbonne, doctoral thesis, 2006, p.4

5 "La forma a finestra" (Sciarrino S. : *Le figure della musica da Beethoven a oggi*, Milano, Ed. Ricordi, 1998, p.97)

abstract and conceptual categories and, as such, they are common principles and shared by all human languages.[6] In his writings, Sciarrino speaks of music, particularly in relation to form and sonority, with reference to notions of space. The form of a piece is often seen in parallel to concepts that refer to movement, structure and physical phenomena, and sonority is not only seen in reference to auditory perception, but also in relation to the physical and visual perception of space. Sciarrino's compositional thought therefore appears to be conceptually metaphorical and, at the same time, intrinsically perception-driven.

Starting from these observations, I will provide a theoretical framework appropriate to understanding his musical thought, which will constitute the basis for an analysis of two of his works aimed at exploring his music in its micro and macro structure from both a conceptual and a perceptual perspective.

Conceptual Metaphor Theory, a theoretical model developed by George Lakoff and Mark Johnson in the late 1970s, claims that metaphor is a mechanism of mind that constitutes our principal vehicle for understanding how we perceive, think, and act in the world. Metaphor allows us to conceptualize and understand the world through our physical and biological experience; it follows that it is therefore primarily an issue of thought and action, and only derivatively a matter of language. According to Conceptual Metaphor Theory, our physiology affects the most basic concepts we use in our everyday life (up-down, front-back, in-out, near-far, light-dark, etc.) by virtue of metaphorical projection of our experience onto other situations and disciplines:

> **"**the structure of our spatial concepts arises from our constant spatial experience, that is our interaction with the physical environment.".[7]

---

6 "Les principes d'organisation sont conceptuels: ils sont abstraits et ils peuvent être retrouvés dans n'importe quel genre de langage humain.". (Giacco G. : *La notion de "figure" chez Salvatore Sciarrino*, Paris, L'Harmattan, 2001, p.10)

7 Lakoff, G. & Johnson, M. : *Metaphors We Live By*, Chicago, The University of Chicago Press, 2003, p.56

Nevertheless, metaphor is not thereby based on similarity, but on cross-domain correlations in our experience, which determine the perceived similarities between the two domains within the metaphor. Through metaphor we connect and explain one conceptual domain in terms of another: we use relations and objects that characterize one experience or domain to reason and speak about another one. The domain from which we draw properties to understand or illustrate another is called the source domain, while the one that is understood by virtue of the former is called the target domain.

So-called source domains are grounded in embodied experience, and come from bodily perception and movement. For instance, the metaphor *the visual field is a container*, which underlies expressions such as "They are coming *into* view now", allows us to conceptualize our visual experience in terms of physical space, and it is grounded in the correlation between the boundedness of our physical experience and what we see.[8] This codification of our experience derives both from our sense of inhabiting our own body and other experiences of containment, such as being in places, buildings, etc.[9]

Since abstract thought is largely metaphorical, all of our most basic abstract concepts (time, cause-effect, etc.) are understood via ontological metaphors by virtue of systematic correlations within our experience. Time, for instance, is understood almost entirely in metaphorical terms via the spatialization of time and the metaphor that *time is a moving object*.[10] Conceptual metaphor theory explains that:

> "The *time is a moving object* metaphor is based on the correlation between an object moving toward us and the time it gets to get to us. The same correlation is a basis for the

---

8 Lakoff, G. & Johnson, M. : *Metaphors We Live By*, Chicago, The University of Chicago Press, 2003, p.58

9 Finch, G.: *Linguistic Terms and Concepts*, London: Palgrave MacMillan, 1999, p.154

10 Ibid, p.118.

> *time is a container* metaphor […], with the bounded space traversed by the object correlated with the time the object takes to traverse it."[11]

We, as humans, can certainly experience time, but not quite understand it by merely speaking about it in its own terms. We need other kinds of entities and experiences in order to comprehend time more richly, and the properties that allow us to understand and discuss abstract domains in relation to the physical domain are grounded not only in our cognitive system, but also in our perceptual system. The connection between our perceptual abilities and our faculty of representation results in similarities between cognition and perception, and derivatively also in analogies between different perceptual domains. One instance of this is the strong similarity between the way we perceive auditory input and the way we perceive visual input, an instance of which we will see in detail below.

In order to illustrate how perception and representation are connected, and furthermore how visual and auditory perception present correlations in the properties that allow us to decode perceptual data, I will draw from empirical evidence in studies conducted by the Gestalt school, and discussed by the psychologist Albert S. Bregman[12]. Similarities between auditory and visual perception, specifically regarding the role perception and representation play in decoding perceptual data, are particularly relevant in order to understand how some compositional strategies adopted by Sciarrino are grounded in perception.

Two comparisons of scene analysis in vision and audition made by Bregman[13] show the strong similarities between the way we perceive auditory input and the way we perceive visual input. The most striking parallel between auditory and visual perception seems to be

---

[11] Lakoff, G. & Johnson, M. : *Metaphors We Live By*, Chicago, The University of Chicago Press, 2003, p.59

[12] Bregman, A. S. : *Auditory Scene Analysis: The Perceptual Organization of Sound*, Cambridge, MIT Press, 1990

[13] Bregman demonstrated interesting parallels in the principles that govern auditory stream segregation and visual grouping, as well as between auditory stream segregation and the phenomenon of apparent motion in vision.

that between the principles that govern *apparent motion* in vision and *auditory stream segregation*[14].

Apparent motion is a perceptual effect produced by a temporal succession of still objects giving the optical illusion of motion. For instance, two lightbulbs alternately switched on and off in a dark room may give the illusion of a single light moving back and forth. Adolf Korte (1915) observed the phenomenon of apparent motion relating distance and duration between two successively presented stimuli and formulated a series of principles involving the duration of stimulus, the spatial separation and the stimulus intensity. Korte's third law of apparent motion states that the relationship between distance and duration is linear, which implies that in order to increase the distance between two lightbulbs and still preserve the illusion of motion, one has to increase the amount of time between the start of one flash and the following one, so as to slow down their rate of alternation. As Bregman observes:

> "The law assumes that if an object is moving a longer distance, it takes longer to get there: hence the proportionality we find."[15].

When a more elaborated form of the apparent motion effect, involving six lamps instead of two, was conducted arranging them in a horizontal row so that a wider gap separated the left triplet from the right triplet, it showed a strong resemblance to the auditory streaming effect[16].

---

[14] Auditory stream segregation is an aspect of hearing perception by which the human auditory system is able to group sounds from different sources and form perceptually meaningful representations of them (e.g. a melody).

[15] Bregman, A. S. : *Auditory Scene Analysis: The Perceptual Organization of Sound*, Cambridge, MIT Press, 1990, p.22

[16] Ibid, p.17. Auditory stream segregation has been observed in an experiment conducted playing a repeated sequence of six different tones, alternating three low ones and three hight ones. When the tones were presented slowly, listeners could hear the sequence in the correct order of the tones, however at faster rates listeners could not identify the right order in which the tones had occurred and instead heard the single sequence broken up into two different streams of sound: one containing the three low-pitched notes, the other containing the three high-pitched notes.

The experiment proved that at increased speeds, motion seemed to split the six lamps into two separate streams: the rightmost and leftmost groups.

This segregation shows parallel results to those obtained with the *auditory streaming effect* and it is explainable through Korte's third law: in this case, as the speed increases, the distance between flashes must shrink in order for motion to be perceived. Bregman observes that it is the success of Korte's law in explaining the visual case that suggests that there is a parallel law in audition, with melodic motion taking the place of spatial motion. This implies that in order to maintain a sense of connected melodic motion as the frequency separation between high and low tones increases, one must slow down the sequence.[17]

This auditory and visual scene analysis comparison demonstrates the strong analogies between auditory and visual phenomena, particularly between the principles of grouping that govern auditory and visual perception. For instance the spatial dimension of distance in vision has a double analogy in audition: a separation in time, and a separation in frequency. The principles of grouping are dependent on how the brain creates mental patterns by forming connections between the elements of the sensory input and will be further explored later on with regard to the role they play in the conception and perception of Sciarrino's temporal strategies (see § 4.5).

The final part of my thesis will address how the concept of space relates to time and sound in Sciarrino's work with direct reference to his writings and scores, particularly one of his works in window form. As we will see in more detail later on, Sciarrino's view of time is spatially connoted by virtue of several factors, the main one being the connection between our perceptual abilities and our faculty of representation. This connection, in turn, relies on two main factors which can be briefly summarized as follows:

---

[17] Ibid, p.22

1. Similarities between perceptual domains (e.g. analogies between visual and auditory perception)
2. Correlations between different domains (e.g. space and time) as a means to conceptualize the nonphysical (e.g. time) in terms of the physical (e.g. space).

Carlo Carratelli further suggests[18] that for Sciarrino the notion of 'spatiality' in relation to musical time can be understood by virtue of four aspects:

1. Perception as a synaesthetic phenomenon: given the way our five senses constantly interact with each other, our listening experience is strongly influenced by our other perceptual capacities, and particularly by visual perception.
2. Memory as a 'mental space': since our consciousness has the ability to observe and perceive events happening in the present, while at the same time coming out of the present, into some point in the past, and vice versa, memory can be understood as a space where consciousness operates, perceiving, recognizing and comparing sound events, in order to make sense of what happens in time and then to create formal representations.
3. The historical influence of notational systems in Western musical culture, that is to say, the influence of visual-spatial notation on the development of musical thought as well as on temporal reasoning, and the tendency towards a spatial visualization of time flow as a dominant feature of our age.
4. Naturalism in the modern era and the influence of reality on perceptual and compositional structures, and consequently the "poetics of the double" and the aesthetics of transfiguration in the arts. If nature and reality influence the dynamics of

[18] Carratelli, C. : *L'integrazione dell'estesico nel poietico nella poetica musicale post-strutturalista: il caso di Salvatore Sciarrino, una "composizione dell'ascolto*, Università di Trento – Université Paris Sorbonne, doctoral thesis, 2006, p.100

creative thinking, then, according to Sciarrino, creativity transfigures these scenarios, creating a sort of double of reality itself.

In *Le figure della musica*[19] Sciarrino discusses what he terms the principles of spatial organization, further classified as *multiplication* and *accumulation* processes. Space and spatial properties are often used and transfigured in Sciarrino's music in relation to matters of sound and temporality. The distinction between the two kinds of spatial organization, each of which typically refers either to the micro or the macro form, will be described and contextualized in relation to musical passages, with examples and analyses from Sciarrino's music in Chapter 3.

Concerning the issue of time, this is purposely being reduced solely to Sciarrino's thoughts and his approach to time and temporality, a topic otherwise largely beyond the scope of this work; however, many other philosophical writings on the topic of time consciousness need to be kept in mind. Sciarrino sees time essentially as discontinuous, variable, and related to other temporalities, following Bergson's theory of time and consciousness, which proposed the idea of objective and subjective experience of time.

According to Sciarrino, our sense of temporality becomes discontinuous and variable as a result of how our physical experience affects our consciousness. Nowadays most of us are familiar with the use of technical devices and their ability to potentially generate a virtual space connecting us to other places and temporalities, for instance by connecting us to people in other places and time zones, but also by showing us images that relate to other places, real or imaginary, and time dimensions. The presence of images coming from technological devices (e.g. tv, mobile phones, etc.), coupled with the constant change of images on these screens, interrupts the potential continuity of our time perception essentially by means of

---

[19] Sciarrino S. : *Le figure della musica da Beethoven a oggi*, Milano, Ed. Ricordi, 1998, p.27

visual interferences. As a reflection on the issue of time consciousness, Sciarrino employs processes of interference and discontinuity in his music through what he terms window form[20]. Sciarrino apparently developed his own theory of time windows and derivatively the so-called 'window form' as a reflection of the way our consciousness and imagination respond to the frequent interruptions caused by technological devices (cameras, computers, TV, etc.) in the modern era. In Chapter 4 I will give further evidence of applications of this formal prototype with reference to Sciarrino's music and the way in which the macro structure of his pieces is perceived as a result of the application of this technique.

To conclude, after unpacking the conceptualization of time in relation to space according to conceptual metaphor theory and similarities between the way we perceive auditory input and visual input according to perceptual theories, I will move on to illustrating what the composer in his writings terms 'principles of organization' and how these mechanisms are connected with the formal organization of music and visual arts, and particularly Sciarrino's works.

---

[20] Sciarrino S. : *Le figure della musica da Beethoven a oggi*, Milano, Ed. Ricordi, 1998, p.97

CHAPTER 2

The Concept of Space and its Representations in Sciarrino

2.1 Spatiality and the Principles of Organization

The development of electronic music in the 1950s, and especially the increased attention to the relationship between sound and space, contributed to an increased awareness on the role of physical space in the conception of musical works. As Grazia Giacco observes, *Metastasis* by Xenakis*, Gruppen* by Stockhausen, and *Poème Electronique* by Varèse are a few notable examples of how space influenced a composer's work and how the concept of space and its properties eventually started being translated in music.[21] In the aforementioned pieces the idea that sound is spatial is articulated in very different ways: in *Gruppen* by Stockhausen the relationship between sound and space is almost visual as a result of being written for 3 orchestral groups, whereas in *Poème Electronique* by Varèse, an electronic music work composed for the inauguration of the Philipps Pavillion (Brussels, 1958), sound is spatialized by means of speakers and sound projectionists using telephone dials. Interestingly the Philipps Pavillion was commissioned for Expo ’58 to Iannis Xenakis, at the time active both as an architect and as a composer, who took some of the results of his studies on the structure and parameters for the Philipps Pavillion to compose his *Metastasis.*

Sciarrino's case, however, is one where the concept of space is rather transfigured and integrated in the musical work. Both sound and form seem to spring from a sense of spatiality:

---

[21] Giacco, G. : *La notion de “figure” chez Salvatore Sciarrino*, Paris, L'Harmattan, 2001, p.14

> "a sense of space, which is at the basis of music. I don't mean real space, but *mental* space. Even before giving the rules that organize the composition, space organizes musical perception."[22]

In discussing the principles of formal organization from a spatial perspective in his book *Le figure della musica*, Sciarrino often touches on concepts of substance, density, fullness, emptiness[23], implying metaphorical thought in relation to concepts of space, energy and physiology. When discussing other composers' work too, he speaks of orchestral passages where a contrast or an evolution from *empty* to *full* is detectable as determined by the necessity to fill a space, as a metaphor for physical phenomena (e.g. rainfalls) where we can observe a disproportionate growth of elements, articulations, and energy. The correlation in our experience between different physical domains, such as the temporal and spatial domains, allows us to conceptualize the nonphysical (i.e. time) in terms of the the physical (i.e. space) and consequently to conceive and perceive musical events taking place in a given time span as objects *contained* in a bounded space. It follows that the time in which such musical passages show an evolution from one state to another can metaphorically be seen as a space, or a visual field, in which a process of growth is taking place.

The processes and techniques of spatial organization involved in the growth of musical elements are defined and illustrated by Sciarrino with reference to physical and behavioural models. They are divided into *accumulation processes* and *multiplication processes*[24] according to the characteristics of their growth traits. During *accumulation processes* energy tends to aggregate chaotically and exponentially. The heterogeneity of the elements accumulated often builds up to reach some saturation or rupture levels, leading to an

---

22 "un senso dello spazio, che è alla base della musica. Non intendo lo spazio reale, ma lo spazio *mentale*. Prima ancora di dare le regole organizzatrici della composizione, lo spazio organizza la percezione musicale." (Sciarrino, S. : *Le figure della musica da Beethoven a oggi*, Milano, Edizioni Ricordi, 1998, p.60)

23 Ibid, p.27

24 Sciarrino, S. : *Le figure della musica da Beethoven a oggi*, Milano, Edizioni Ricordi, 1998, p.27

explosion in which energy is dispersed; in fact they usually form a climax at the point where they are interrupted. *Multiplication processes*, conversely, present homogeneous elements which, when expanding, portray continuous and linear levels of growth. As opposed to accumulation processes, characterized by a certain degree of diversity of the elements accumulated, multiplication processes present a similarity of elements. As Sciarrino observes, the accumulation of memory, experience, stimuli and signals, is an everyday process and deeply connected to our biology as much as is the physical experience of a place, its changing landscape, the atmospheric phenomena that inhabit it.[25] Even the change from low to high density during a perturbation can be seen, for instance, as an *accumulation* process. Looking at what happens between opposite and extreme phases of the atmospheric phenomenon, one can notice that an intermediate phase occurs before transitioning completely from *emptiness* to *fullness*, and how during this phase the different particles unite in irregular forms, aggregating further as groups in increasingly bigger constellations. Interestingly, Sciarrino remarks how, noticeably, positive and negative correlations occurring between different phenomena (an increase in rainfall and a decrease in dry spaces, for instance) can also be reflected in music, and how even these kinds of correlation elicit a concrete response at a perceptual level.

In relation to the strategy of using processes of multiplication and accumulation from a structural and formal point of view, Sciarrino further suggests that *accumulation* processes belong to the macro structure and to the general perspective of a work, whereas *multiplication* processes tend to happen within small portions of a work and generally pertain to the micro form.[26] The heterogeneity of the elements involved in *accumulation* processes makes them more suitable to be part of the macro form, whereas the predictability and the exhibited

---

[25] Ibid, p.28

[26] Ibid, p.41

regularity of the *multiplication* processes makes them ideal for the micro structure and for passages in between micro and macro form. It is not only in the distinction between different spatial principles of organization, though, that space and perception influence the musical discourse.

With regards to spatial metaphors, they interest Sciarrino's music in two opposed and complementary ways. On the one hand, space and architectural elements are a cognitive source for formal organization and sound matter. On the other, space and its visual properties affect the compositional strategies at a perceptual level, by virtue of parallelisms that affect time perception and temporal continuity in relation to visual space. As for space as a cognitive source for formal and sonic organization, Sciarrino generally reasons and speaks about the overall construct of a piece as a result of elements and blocks, assembled strategically in relation to one another. This perspective contributes to the conception of a musical work with strong similarities to an architectural project. According to Sciarrino, a symphony is in fact the perfect example of architectural sense projected in time:

> A symphony is conceived of *masses* of instruments which alternate, contrast, permeate, dissolve, and it is organized through thematic *blocks* which alternate, contrast, compenetrate, dissolve. Masses of instruments and thematic blocks. Masses and blocks: such concepts come unequivocally from spatial perceptions, and their organization resembles architecture. We must rather say that it is the mechanism of the *theme* in itself, made of relationships between melodic elements, that follows a spatial juxtaposition, and benefits from a separate mental dislocation. The return of the theme, in fact, its disguised appearances, it all demands to our minds a huge work, simultaneous to the time we spend listening. It is our memory that is involved in transitioning from present to past moments, from present theme to memorized theme. The perception of musical structure originates in the faculty of recognizing sound figures.[27]"

All of the above are instances of how space and its properties are seen and employed

---

[27] "Una sinfonia è concepita per *masse* di strumenti che si alternano, contrastano, compenetrano, dissolvono, ed è organizzata per *blocchi* tematici che si alternano, contrastano, compenetrano, dissolvono. Masse di strumenti e blocchi tematici. Masse e blocchi: tali concetti vengono inequivocabilmente dalle percezioni spaziali, e la loro organizzazione somiglia all'architettura. Anzi, dobbiamo dire che è già lo stesso meccanismo del *tema*, fatto di relazioni tra elementi melodici, a seguire una contrapposizione spaziale, a usufruire di una dislocazione mentale differenziata. Il ritorno del tema, infatti, le sue apparizioni trasformate, tutto ciò richie alla nostra mente un enorme lavorio, simultaneo al passare dell'ascolto. E' la memoria a fare la spola tra presente e istante memorizzato, fra tema presente e tema memorizzato. Nella facoltà di riconoscere le figure sonore ha origine la percezione della forma musicale." Ibid p. 62

as criteria of spatial organization of music material. According to Sciarrino, principles of organization can also be used as formal strategies to affect our perception of time. During *accumulation* processes, for instance, due to an increasing amount of energy, often reflected in music as an increase of textural or rhythmical density, time often seems to accelerate and contract. *Multiplication* processes, conversely, give the impression of expanding our perception of time. The relationship between space and temporality, and particularly how time is conceptualized and perceptually linked to an idea of space, is still worth further consideration and will be explored in the next section as well as more in depth later on in this work (see § 4.5 and 4.6).

2.2 Spatiality and Temporality

In relation to how space and the visual dimension affect temporality, Sciarrino identifies the *discontinuity of the temporal dimension* and the *multiplicity of the point of view* as two key aspects of our contemporary way of thinking and characteristics of our modern society. Our sense of temporality is discontinued, variable, and simultaneously linked to other temporalities, also by virtue of use of everyday objects and devices and their ability to interfere with the time course: something as simple as looking at a picture we have taken is an experience that affects our sense of temporality by essentially inserting in our present a space-time window to the past. Most of our media devices (e.g. computers, phones, television) are conceived to connect us to other space-time dimensions or to create virtual spaces. When watching a movie or a video, we hold a space in our environment to observe others' real or imaginary lives, and with them their different times and spaces. This temporal interference can become even more articulated if we think about the multitude of options that TV

programs running in parallel can imply in terms of virtual possibilities of intermittence, and is a process that can be attributable to our devices as much as to the way we interact with them.

When Sciarrino affirms that "Through windows, space interacts with time"[28], what he terms 'window' is a spatial or temporal interface. It is through such windows that space interacts with time, and different temporalities interact with one another, creating a space-time discontinuity. Interestingly, when discussing temporal discontinuity in relation to visual discontinuity, Sciarrino makes reference to *Boy Bitten by a Lizard* by Caravaggio as the moment of rupture of traditional perspective in relation to the moment of rupture of the unitary concept of time[29]. It is in the portrait of an accident, in the boy's apparently blocked movements, that his pose suggests an idea of contrast: a contrast between portrait and still life, between immobility and quick movements. It is especially the concept that embraces how the different elements are presented, though, that is very near to photography. According to Sciarrino, this rupture of traditional perspective coincides with the rupture of the unitary concept of time.[30]

Sciarrino points out that the *mental* sense of space at the basis of music organizes musical perception, even before dictating the rules of the compositional organization.[31] One of the most significant perceptual effects of window form consists in the properties connecting similar elements occurring intermittently, so as to create a sort of polyphony between materials; the term 'polyphony' is intended here as a multidimensionality, an overlapping of imagery and dimensions that consciousness is able to distinguish and connect on the basis of mutual affinity. Discontinuity and intermittence of compositional elements can

---

[28] "Attraverso le finestre lo spazio interagisce col tempo."

[29] Sciarrino, S. : *Le figure della musica da Beethoven a oggi*, Milano, Edizioni Ricordi, 1998, p.103

[30] Ibid, p.100.

[31] "Non intendo lo spazio reale, ma lo *spazio mentale*. Prima ancora che dettare le regole dell'organizzazione compositiva, lo spazio organizza la percezione musicale." (Sciarrino, *Le figure della musica da Beethoven a oggi*, Milano: Edizioni Ricordi, 1998, p.60)

be seen as objective and structural, whereas the ability to perceive similarity in duration or timbre is attributed to the subjective consciousness. According to Sciarrino, discontinuity, intermittence and periodicity, all elements that characterize window form, are a reflection of our memory and basic mental mechanisms:

> Getting in and out. This is the mechanism of the window form, the mechanism of our mind.[32]

The listening experience is a process in which perception and memory, as well as cognitive mechanisms, interact to decode information. It is evident that the mechanisms regulating perception are relevant to Sciarrino to the degree in which they contribute to widening his awareness in planning the formal structure of a piece, but also to creating a musical structure that mimics our perceptual mechanisms.

For Sciarrino the subjectivity of the present moment plays a determining role in our experience of time, since our experience of time can only take place in the present moment: the past and the future exist now by virtue of our ability to relate to them, connecting past and present, and, virtually, present and future. When listening to music, our consciousness is capable of relating moments and data, connecting what we are listening now and what we have listened a few moments ago. About this, Sciarrino points out that what we might refer to as temporal continuity is actually made of short discontinuities in consciousness.[33] The ongoing intermittence is aimed at confronting each musical fragment with those previously memorized. Through this process, our mind compares different fragments integrating the missing information, linking and locating the different fragments according to spatial logics. Sciarrino goes on to highlight how temporal continuity in music is an attribute we must not

---

[32] "Entrare e uscire. Questo il meccanismo della forma a finestre, il meccanismo della nostra mente" Ibid, p. 145

[33] "La continuità temporale, in questo senso, è fatta di piccole discontinuità di coscienza." (Sciarrino S. : *Le figure della musica da Beethoven a oggi*, Milano, Edizioni Ricordi, 1998, p.60)

take for granted. As opposed to that of the past, the modern concept of temporality in the arts is increasingly subjected to the strategic choices and criteria that artists wish to impress on their works.

In the upcoming analyses we will see that spatial properties are used by Sciarrino as a criteria of organization of music material in multiple ways and for various purposes. In particular, the upcoming analysis of the first string quartet from *Sei quartetti brevi* will show how anamorphosis and spatial properties are used by Sciarrino to produce variations in the micro-materials, as well to generate structure in the macro-form by means of application of the principles of organization.

The following analysis of *Allegoria della notte,* for violin and orchestra, will offer an instance of how the concept of space relates to matters of sound and temporality. In this case we will see how a sense of linear perspective within the micro-materials resulting in changes of duration and timbre is largely responsible for diversity in the musical materials and how the temporal structure is affected by spatial properties through the combination of metaphorical thought and perception.

Analyses of selected works

CHAPTER 3

Sei Quartetti Brevi

3.1 Introduction

This analysis of the first string quartet from "Sei quartetti brevi", a collection of pieces dating from 1967 to 1992, highlights some ways in which Sciarrino relates to his own compositional material by illustrating the processes through which the material is presented, varied and organized in time. Such processes will not be aimed at isolating the most typical *stylistic* features in Sciarrino's musical language, the description of which is beyond the scope of this work and would require a much wider scrutiny of his musical production. They will rather aim to draw attention to some compositional strategies and techniques used in certain works, or sections of works, in relation to a spatial conception of sound and form.

We will therefore see in detail how in Sciarrino's compositional approach the spatial and perceptual components influence the totality of the continuum, albeit in different ways, starting from the choice of musical material and extending to organizational processes and formal structures.

To understand this string quartet in its complexity, it is necessary to start by breaking down the musical continuum into micro units, which will be termed 'sound objects'. The term 'object' is used as a definition of the smallest musical element, a primary unit of music material which, over the course of the piece, can be made longer or shorter, but which cannot be broken down into smaller parts. The clarity of the contours, the quasi-geometric characteristics of the components which, in this specific case, also visually translate into the performers' movements, give each figure a concrete and defined presence in space, both

physical and auditory. Furthermore, as we will see later, the concept of 'object' is key to understanding the compositional thought behind this work. The formal microdevelopment unwinds around the observation of the material from various perspectives and around the sound objects' anamorphosis. The word anamorphosis first appeared in 1657 in Gaspar Schott's *Magia universalis naturæ et artis*[34] and derives from the Greek *ana* (up, against, back) and *morphe* (form). In the visual arts, the term *anamorphosis* refers to a perspective technique that recreates a phenomenon of optical illusion by means of distortion of the image of an object, either caused by the object being reflected in a curved mirror or by the angle from which it is viewed. Whereas in the visual arts it is generally the viewer's angle and perspective which affect the perception of the object, in this context it is the composer's variation of the sound objects' proportions which affect the listener's perception and give the illusion of a shift in perspective. In order to be effective, this compositional process necessitates absolute definition and recognition of the musical material, as well as components (duration, pitch, etc.) that lend themselves to an anamorphic reading.

My analysis will proceed through four stages: 1) isolation of the sound objects that constitute the piece; 2) classification of the different objects on the basis of homogeneous and heterogeneous characteristics; 3) illustration of the main objects' distinctive features and a comparison of the structural relationships among them; 4) illustration of the principles of formal organization and an exploration of possible interpretations of the composer's own strategies.[35]

---

[34] Baltrušaitis, Jurgis : *Anamorfosi, o magia artificiale degli effetti meravigliosi*, Milano, Adelphi Edizioni, 1978, p. 181

[35] My methodology is largely based on the aesthetic-cognitive approach by Francesco Giomi and Marco Ligabue with the exception that my analysis process will address contemporary instrumental music instead of electroacoustic music; for this reason I will take into account perceptual criteria, thus relying on listening for the immediacy of certain musical events, as well as information provided by the composer in the score.

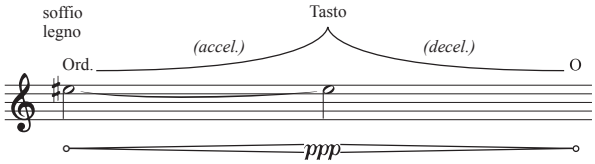
The first phase, focused on microformal mechanisms (stages 1, 2, and 3), will aim to reconstruct and illustrate the ways in which sound objects are conceived and combined in the course of the piece, as well as identifying the relationships that exist between each object and its stages of variation. After determining the mechanisms that regulate the variations applied to all sound objects, the second phase (stage 4) will consider the overall musical structure and internal formal sections, as well as the principles of organization of the sound objects within the musical continuum.

3.2 Sound objects and classification

From an overall analysis of the score three main types of 'sound object' can be detected. From here onwards, for convenience, they will be termed respectively *a*, *b*, *c*, where a_1 - a_2 - etc. will refer to almost exact repetitions (or micro variations) of the same object in time, whereas a^{I} - a^{II} - etc. will identify significantly different variations (or anamorphic perspectives) that are still traceable to their respective source objects.

The first occurrence of object '*a*' appears at bar 1 in the cello part with the indication '*soffio legno*' (see example 1). By the definition provided in the score, this object is characterized by an absence of attack transient and by an accelerating lengthwise movement of the bow along the string from *ordinario* (O) to *tasto* (T), using the wood rather than the hair, followed by an acceleration back to *ordinario*. When this sound emerges from silence, what is effectively perceivable is a sound with a marked white-noise component, whose timbre evolves, together with the bow movement from *tasto* to *ordinario*, from a darker to a lighter colour. The acceleration in the bow movement accompanying the dynamic peak and its decreasing dynamic to silence strongly affect the sound quality of object *a*, contributing to its predominantly dynamic identity. Pitch content only makes a marginal contribution to the

auditory perception of *a* and mostly affects its timbral quality, to a point where variations in notated pitch content involving *a* and its further occurrences (a_1, a_2, etc.) merely add darker or lighter overtone colours to a predominantly white-noise sound, rather than affecting its perceived pitch. Concerning the indication *soffio-legno*, in the same way as for other terms that will follow, Sciarrino limits himself to indicating the sound character without any further technical indications, leaving it to the interpreters to find the appropriate technical means to translate the idea into sound and action.

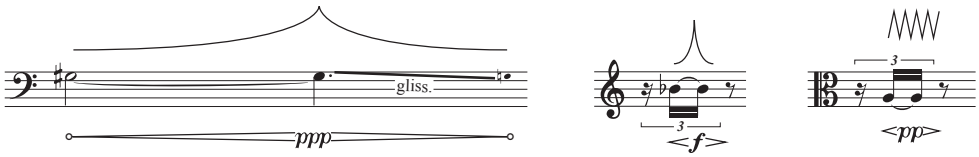


Example 1

a

The first variation of object *a* (a^{I}) occurs at bar 2 in the cello. The parameter that identifies this variation and different perspective of object *a* is that of *duration*: objects *a* and a^{I} are identical from a technical and timbral point of view, however, whereas *a* is essentially linear, a^{I} presents more punctual features and offers a different side of *a* as if the two objects were actually one, but observed from a different perspective. The second variation (a^{II}) occurs at bar 9: a^{II} is produced by moving the bow rapidly and repeatedly from *tasto* (T) to *ordinario* (O). The performance notes indicate a "rapid alternation of the two positions, brushing the string with the bow hairs (almost without horizontal movement, and without bow pressure)". The principle of variation here is *intensification*: in a^{II} the shape, or morphology, that characterizes *a* and a^{I} is intensified primarily at the rhythmic level by means of repetitions within a considerably shorter time than within *a* (mainly four crotchets or seven quavers), and

in most cases within the exact same duration as a^{I} (two triplet semiquavers tied). From a spatial, or visual, perspective the variation encompassing objects *a*, a^{I}, a^{II} (see example 2) can be summarized as resulting, respectively, in predominantly linear, punctual and intensified profiles.



Example 2

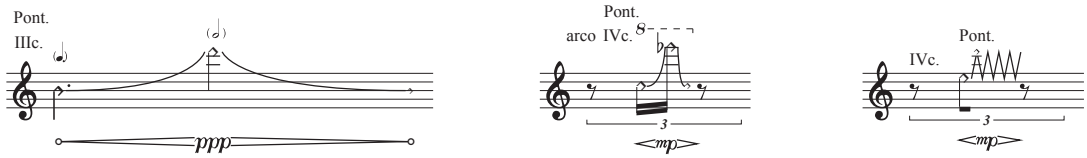
a a^{I} a^{II}

With regard to the second category of objects (*b*, b^{I}, b^{II}) the first instance is a brief appearance of b^{I}, at bar 7 in the cello, while the first occurrence of *b* in its linear form appears at bar 11 - also in the cello. While listening to the recording can assist with tracking the differences between objects *a* and *b*, allowing an immediate grasp of the presence of a new element (b^{I}) at its first appearance at bar 7, the examination of the score is essential to identify elements of similarity between objects *a* and *b*.

As we can see by comparing the two, there are similarities in the same stages of variation applied to different objects: *a* and *b* generally share the same duration, have essentially the same dynamic envelope, and consist of a single exponential gesture that rises and falls. The relationship between *a* and *b* must also be contextualized within the framework of the parameters contributing to the sonic identity of object *a*, because their opposite role in *b* is precisely what they differ from. The combination of fixed fingering position (left hand) and longitudinal bow movement along the string (right hand) is now reversed in *b*: the bow movement is now almost fixed and invariably 'al ponticello', while the exponential gesture

that rises and falls is now assigned to the left hand, resulting in the notable timbral diversity between objects *a* and *b*.

Just as homogeneity plays a role in relation to the variation stages among different objects, so too does the variation process in relation to *b*, b^{I}, and b^{II} (see example 3) exactly mirror that occurring in relation to *a*, a^{I}, and a^{II}: the first variation being defined by duration and the second by intensified repetition.



Example 3

b b^{I} b^{II}

The third category of objects (*c*, c^{I}, c^{II}) occurs in its linear form at bar 18 in the first violin, where a touch-fourth[36] artificial harmonic glissando on Db5 appears with the indication *soffio-suono-soffio*[37] (see example 4), although previous traces appear briefly at bar 16 in the viola and 17 in the second violin. As for the previous cases of *soffio-legno* and *soffio-crine* for object '*a*', Sciarrino indicates the character of the sound without providing explicit technical indications in the notation, again leaving it to the interpreters to find their own way to realise it technically.

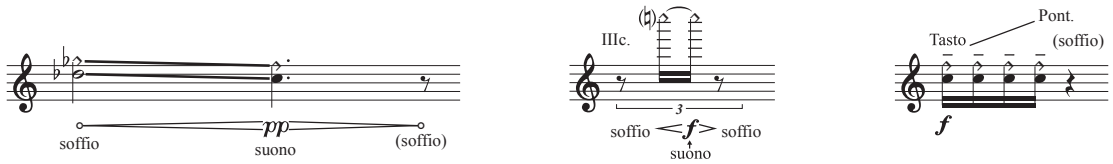
---

[36] On string instruments, the technique of producing artificial harmonics is often used to produce harmonic tones that would otherwise be inaccessible on the instrument. A touch-fourth artificial harmonic is produced by the fourth finger lightly touching the nodal point a perfect fourth above the first finger. In this case the first finger is touching the Db5 while the fourth finger is lightly touching the Gb5. For touch-fourth artificial harmonics the resulting harmonic sound will be two octaves above the first finger, or new fundamental: Db7, in this case.

[37] "breath-sound-breath"

The object *c* has similarities to *a* and *b* in terms of duration (basically always four crotchets or seven quavers, and divided into two), dynamic envelope (from silence to silence), and internal sound transformation (*soffio-suono-soffio*) which corresponds once again to the gestural element of exponential rise and fall. Likewise, the first variation of object *c* (c^{I}) at bar 17 in the first violin, presents a dynamic peak accompanying the same internal sound transformation *soffio-suono-soffio* as *c,* but with a more punctual profile and the same short duration (triplet quaver) as a^{I} and b^{I}.

The second variation (c^{II}) occurs at bar 24 where a short semiquaver-series of artificial harmonics are indicated *portato* first in the cello, then in the first and second violin, then, from bar 25 onwards, in the viola and in all the instruments together. Although c^{II} is still characterized by intensified repetition, as typical of the second stage of variation, its duration appears to be comparable to that of *a* and *b*, thus mostly rather longer than a^{II} and b^{II}. This is possibly because its distribution (frequency of occurrence) must be contextualized here in the frame of the overall musical structure and the levels of organization of the material. A longer duration of c^{II} can be understood as a combination of a short series of object '*c*' and can be attributed to a process of germination leading to a whole formal section (B) of which c^{II} is the main component, as illustrated below (see figure 2) revealing the organizational principles of the sound objects within the musical continuum.



Example 4

c c^{I} c^{II}

Towards the end of the piece more objects appear, at first sight without a clear relationship with the previously discussed materials. The first is a tremolo double natural-harmonic glissando at bar 41 in the first violin. A single tremolo artificial-harmonic glissando had appeared at bar 21 in the first violin in relation to c^{II}, to which this object might easily be linked, although the presence of natural harmonics also links it to an elaboration of b^{II}. The second is the series of natural-harmonic arpeggios occurring at bar 43-44. For various reasons these can be linked to *b*, as an alternative b^{I}, on the basis of their overall duration (triplet quaver), the presence of natural harmonics, and the presence of the typical gestural element that rises and falls producing a perceivable pitch-variation, although in this case the gesture results from the combination of both right and left hand. The third, starting at bar 42 in the violin, is a quasi-melodic glissando of natural harmonics. In bars 44-45 this object extends gradually to all the instruments while undergoing a transformation to progressively shorter durations associated with a clearer melodic profile. For the same reasons as for the previous case of the natural-harmonic arpeggios, this object could be linked to *b*, as an alternative variant of both b^{I} and b^{II}, by virtue of the presence of natural harmonics, glissandi somewhat resembling a gestural rise and fall, and a perceivable pitch-variation.

Before moving on to introducing the formal strategies affecting sound objects in the musical continuum, a short observation is necessary. As anticipated with reference to the analysis stages, the above classification relies on both homogeneous and heterogeneous characteristics as a tool for the identification of sound objects and respective stages of variation.

On the one hand, the homogeneity of certain parameters (e.g. timbre) allows one to trace different sound objects back to the same *category* (i.e. ordinary sound for a-a^{I}-a^{II}; natural harmonics for b-b^{I}-b^{II} ; artificial harmonics for c-c^{I}-c^{II}), whereas the homogeneity of others (e.g. duration) allows different sound objects to be traced back to the same *stages of*

variation (i.e. long duration for *a*-*b*-*c*; short duration for a^{I}-b^{I}-c^{I}), contributing in all cases to the coherence and cohesiveness of the materials. On the other hand, the heterogeneity of the the same parameters also establishes differentiation criteria between sound objects, thus granting variety both among different objects (e.g. timbre for *a*, *b*, *c*) and within the same objects' own variation stages (e.g. duration for x, x^{I}, x^{II}).

As we will see below, homogeneity and heterogeneity are not limited to affecting only microformal components; an insight into the composer's modus operandi will show that they are at the basis of his formal strategies, ensuring, respectively, a sense of unity and cohesiveness, as well as a sense of formal contrast and variety, at the structural level.

3.3 Formal strategies and principles of organization

Having illustrated the main types of 'sound objects', their features and classifications, we can now focus on the musical continuum and its internal overall structure. I will start by identifying the main formal sections, then move on to look at specific sound events. While briefly touching on the principles of organization (processes of accumulation, multiplication, etc.)[38], as classified by Sciarrino, I will offer possible interpretations of the formal strategies at play in this work. Understanding why Sciarrino introduces these variations, in this specific order, and at these specific places will allow us to better understand the compositional thought and procedures that link the material together into a movement.

In order to convey the main traits and proportional structure of this work in a direct manner, I will make use of a graphic system similar to the diagrams that Sciarrino draws (see

[38] This chapter follows on from a previous chapter that introduces and discusses in detail the principles or organization as classified by Sciarrino in *Le figure della musica da Beethoven a oggi,* Milano, Edizioni Ricordi, 1998, p.41

figure 1), which will provide a general overview of the work and of the occurrence of all three objects and their variations in time.

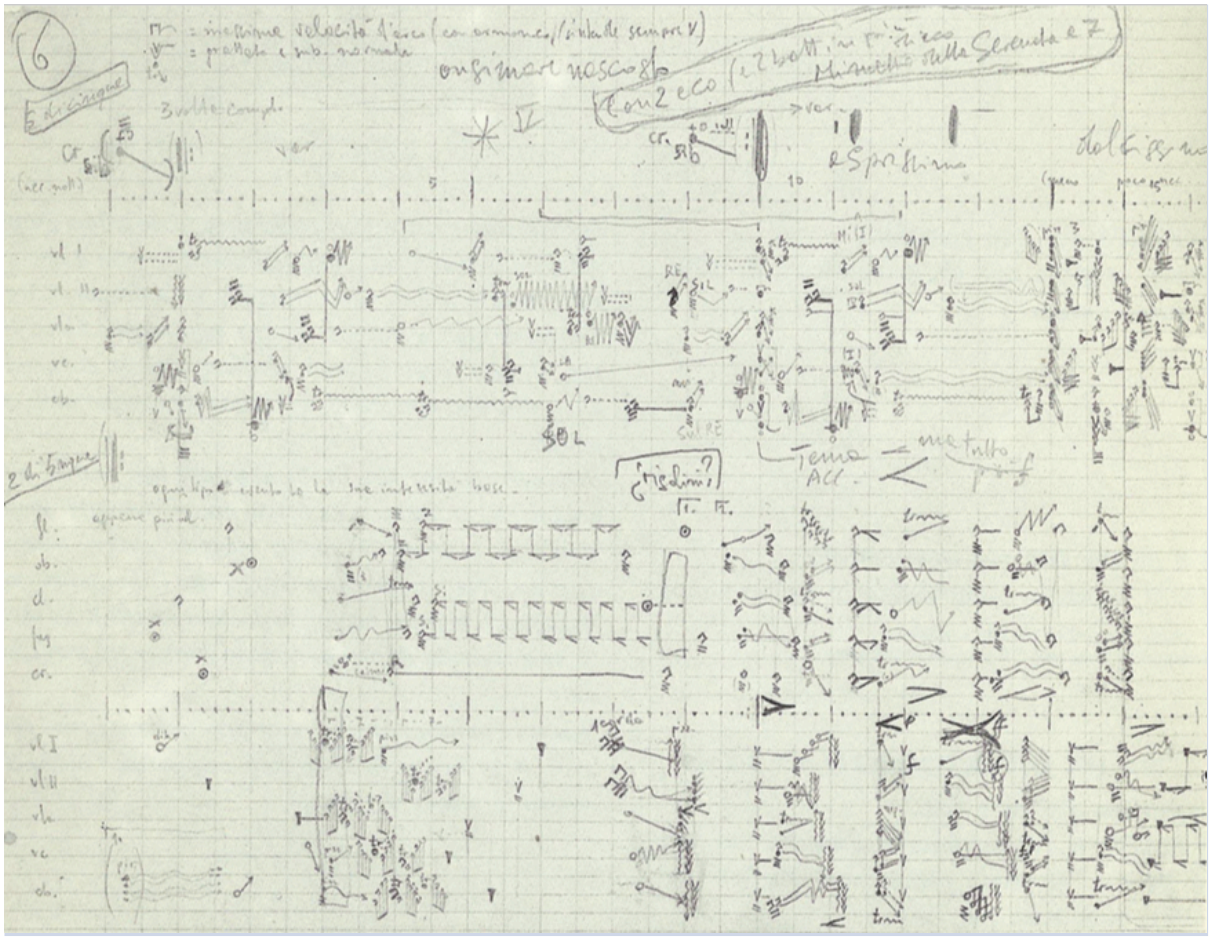


Figure 1. Diagram of the 4th movement from *...da un divertimento* for string quintet and wind quintet (1968)[39]

After preliminary work on the musical material and on the principles that regulate their dramaturgy, Sciarrino commonly outlines all his works by means of diagrams where he visually articulates the profiles and frequency of occurrence of the different sound objects for the entire length of the piece. Diagrams allow him a global picture of the work by means of proportionally translating musical elements to a visual dimension. Usually keeping melodic and dynamic features separated from pitch indications, his diagrams display relationships

[39] Sciarrino, Salvatore: *L'immagine del suono: grafici 1966/1985*, Milano: Civica Scuola di Musica, 2007, p.4

among microstructural elements as well as between the microelements and the overall macroform, thus providing the composer with a tool for musical elaboration and a means to connect a preliminary and intuitive stage of musical material to a final more highly defined stage. Only after outlining one or more diagrams to establish the sequence of sound figures and musical images on paper does Sciarrino proceed to write the score, which, by virtue of being a means of communication to the performers, necessarily presents clearer and more conventional signs.

In my diagram, the different objects and their variations are marked with different colours: objects *a* - a^{I} - a^{II} in red, b - b^{I} - b^{II} in blue, and *c* - c^{I} - c^{II} in green. Different shapes correspond to different degrees of variations for each object and are represented in proportional duration for the various instruments (see figure 2). By observing the frequency and criteria by which the previously identified objects and variations appear and are combined with one another within the musical continuum, the diagram shows how one object's transfiguration process (e.g. *a* - a^{I} - a^{II}) neither translates necessarily to the same order of appearance within a formal section, nor defines a criterion of formal organization. The anamorphic perspectives previously illustrated in fact only represent the overall set of relationships that can be formally articulated throughout the piece.

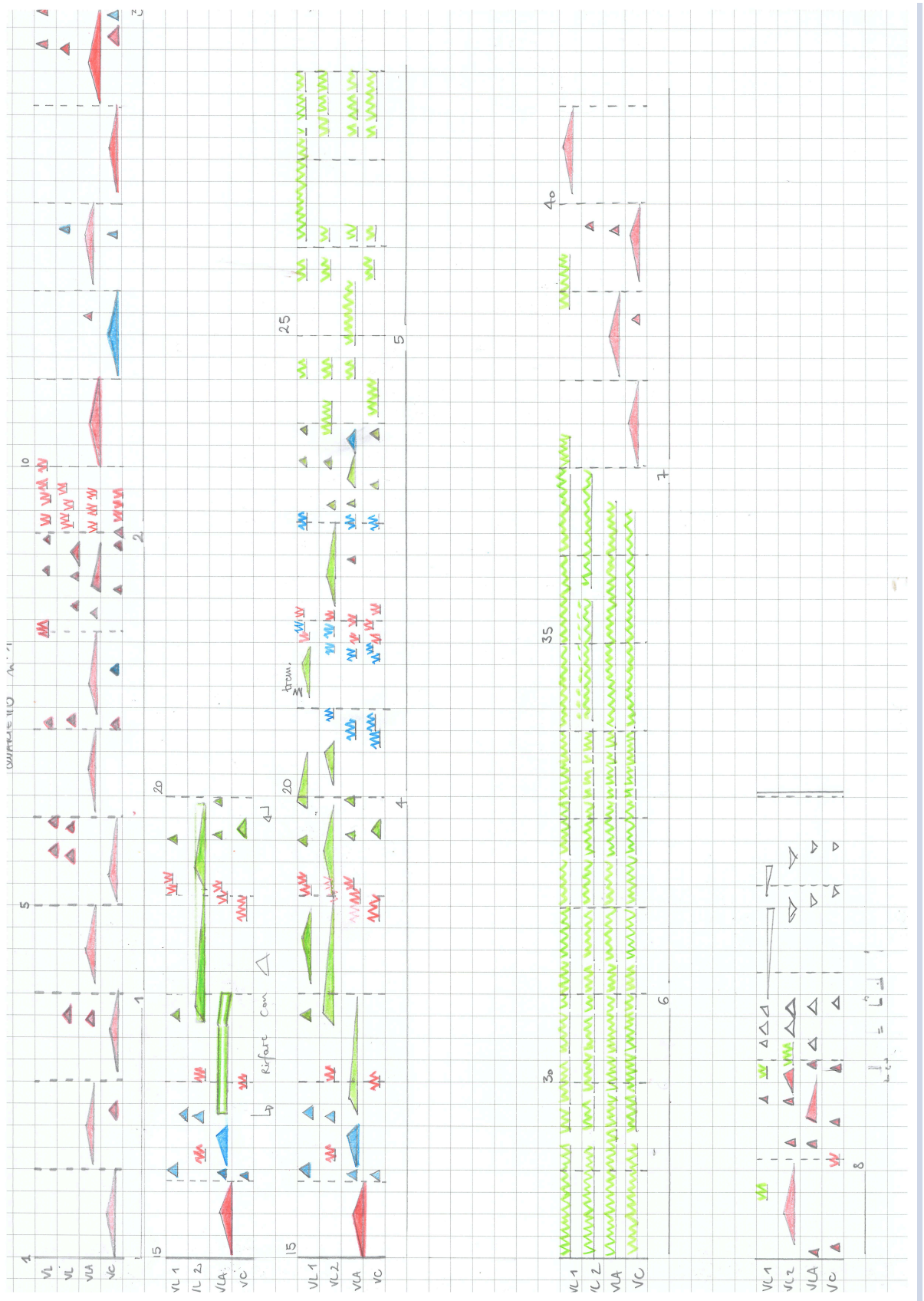


Figure 2

Diagram of the first string quartet from *Sei quartetti brevi*

From a first and quick look at the diagram, the form consists of three sections (A-B-A^{I}): a first macrosection A (bar 1 to 23), a section B (bar 24 to 36) focused exclusively on c^{II}, and a last section A^{I} (bar 37 to 45) characterized by a short 'varied reprise' of A. A more detailed look at the distribution of sound objects in the course of the piece will allow us to observe the presence of further microformal sections and to derive important conclusions about the principles of distribution of sound objects over time.

The first macroformal section (A), for instance, can be subdivided into three further microsections. The first, A_1 (bar 1 to 9), is centered on object *a* and all its variations (*a*, a^{I}, a^{II}) except for a brief occurrence of b^{I} at bar 7. The second, A_2 (bar 10 to 16), is rather similar in internal organization to A_1 but is now centred on objects *a* and *b* and their respective first two variation stages (*a*, a^{I}, *b*, b^{I}), except only for a brief occurrence of a^{II} at bar 16. The third, A_3 (bar 17 to 23), is characterized by the appearance of the new sound object *c* and almost complementary to A_2 because of the presence of almost all the missing variations from the previous section: the new sound object (*c*), its first variation (c^{I}), and the last variation stages of the objects *a* and *b* (a^{II}, b^{II}). The following formal area, B, will be centered exclusively on the only missing variation (c^{II}).

In relation to the processes of micro- and macroformal organization of the material, Sciarrino speaks of processes of growth, density and accumulation of energy, broadly classifying them into two main categories, according to spatial criteria: *multiplication* and *accumulation* processes[40]. It is important to clarify that Sciarrino often uses the terms 'emptiness' and 'fullness' in his writings in relation to physical phenomena (e.g rainfalls), as well as in relation to textural density in the context of musical sections of a score. The mechanisms of growth and of transition from emptiness to fullness, which according to

---

[40] Sciarrino, Salvatore: *Le figure della musica da Beethoven a oggi,* Milano, Edizioni Ricordi, 1998, p.27

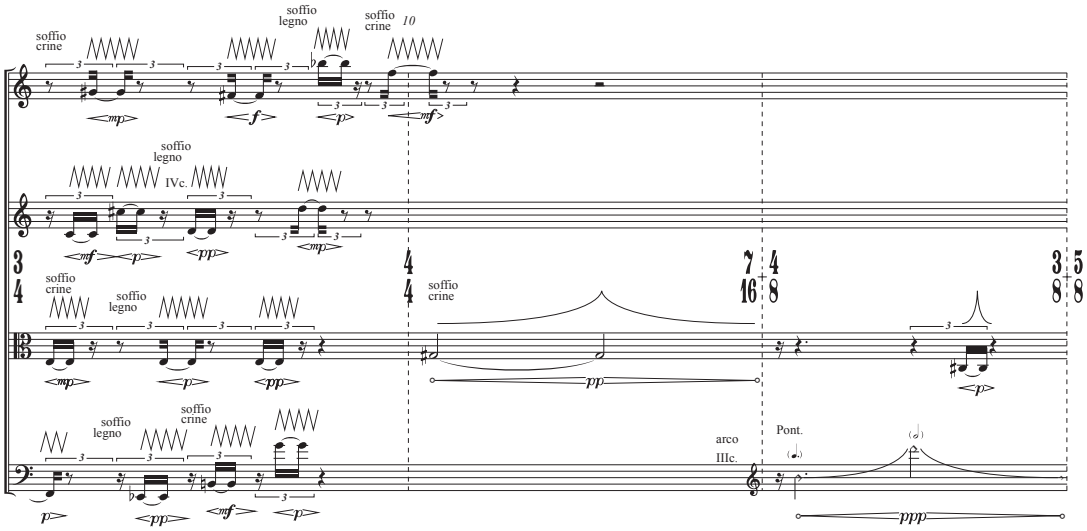
Sciarrino are featured in multiplication as well as accumulation processes, however, have similarities and differences.

During multiplication processes homogeneous elements expand in a continuous and linear growth; the regularity and predictability of this growth make multiplication processes ideal for the microstructure, thus generally in relation to small portions of a work. During accumulation processes, conversely, heterogeneous elements tend to aggregate chaotically and exponentially; they often reach a point of saturation or rupture, leading to an explosion in which the accumulated energy is dispersed. For the heterogeneity and unpredictability of the elements involved, accumulation processes are more suited to being part of the macrostructure of a work[41].

With reference to the first macroformal section A, I now focus on the sound objects previously classified in relation to the aforementioned principles of formal organization. Reasoning by visual analogies with regard to processes that relate to spatial criteria, the different approaches to growth and modalities of transition from emptiness to fullness become more evident from a look at the diagram. For example, an instance of *multiplication* process is visible in the first microsection A_1, where homogeneous elements, in this case variations attributable only to object *a* (a, a^{I}, a^{II}) contribute to articulating a passage of linear growth from a phase of maximum rarefaction (one single sound object, *a*, only at the cello at bar 1 - see example 1) to another of maximum density (objects a, a^{I}, a^{II} distributed among all instruments in bar 9 - see example 5). Proceeding further, an instance of *accumulation* process is noticeable in the two following microsections A_2 and A_3, where heterogenous elements (firstly a, a^{I}, b, b^{I} then c, c^{I}, a^{II}, b^{II}) aggregate exponentially until a point of maximum density is reached, beyond which a new sound object (c^{II}) takes the lead and introduces the following macroformal section B.

---

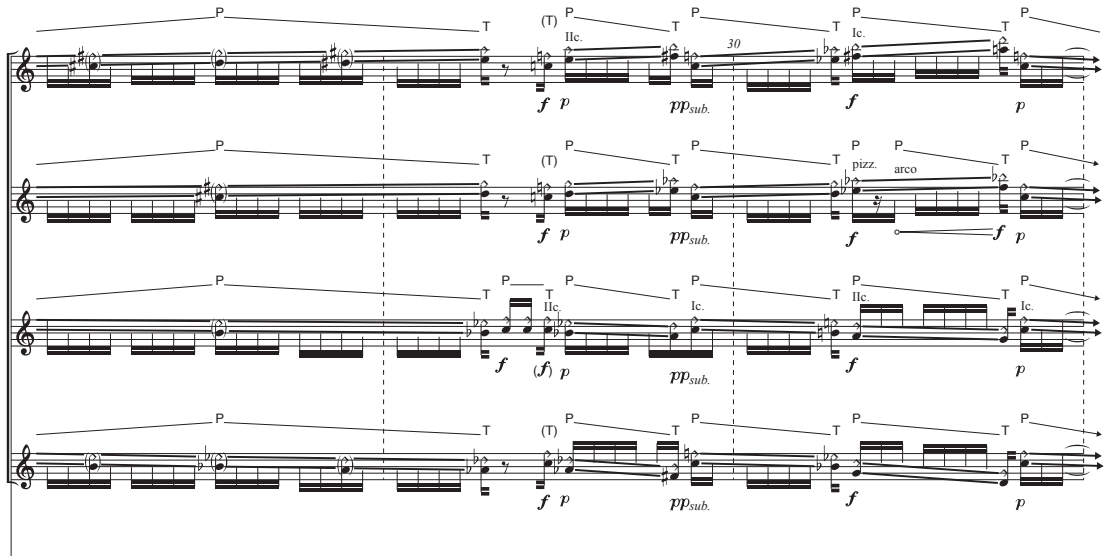
41 Ibid, p.41



Example 5

Phase of maximum density with objects *a*, a^{I}, a^{II} distributed among all instruments (bar 9)

This second macrosection B stands out clearly from the previous one as an abrupt transition from maximum heterogeneity to maximum homogeneity, as we can appreciate by looking at the diagram. From a listening perspective this is all the more evident, as the contrast is striking in all its aspects: from a section (A) characterized by maximum heterogeneity of sound objects (*a*-a^{I}-*b*-b^{I}; *c*- c^{I}-a^{II}-b^{II}) a subsequent section (B) of maximum homogeneity with the almost exclusive prevalence of one single sound object (c^{II}), isochrony of the materials and synchronicity of events is reached, thus moving from a layered and diversified sound texture to an extremely compact one. Additionally, completely uniform dynamics assigned to all instruments characterize specific regions within it, such as bars 28-30 (see example 6) and again bar 33, also emphasizing the compactness of zone B with their limited range (*pp*, *p, f*) and, for the most part, use of terraced dynamics.



Example 6

Terraced dynamics featured in zone B (bars 28-30)

As for the pitch content, the section opens with a unison: a touch-fourth artificial harmonic on C5 assigned to all instruments. From bar 27, the four split into two groups: violins I and II producing upward glissandi, viola and cello producing downward glissandi. The duration of the glissandi always remains homogeneous among the four instruments, although varying during the section, increasing and decreasing in direct proportion with the glissando interval-width, even if differently for each instrument: violin I from a minor second to a perfect fourth, violin II and viola from a minor second to a major third, and cello from a major second to a diminished fifth. As the section progresses, the intervals between groups of glissandi also increase in width with a progressive departure from the initial unison on C5 at bar 26 until the maximum interval width is reached at bar 36 in the tutti climax at the end of section B: the lowest perceivable sound being a Bb4 (a touch-fourth artificial harmonic on Bb2 at the cello) and the highest being a Bb7 (a touch-fourth artificial harmonic on Bb5 at the cello).

3.4 The role of repetition and memory: form as a perceptual structure

Beyond the organizational methods discussed above, there are also perceptual factors at play to ensure that such compositional strategies are effective at linking the material together. The formal strategies illustrated above, which might at first glance appear simplistic for the ways by which the material is organized (repetition, combination, overlap, multiplication) can, however, be appreciated in the light of a cognitive-perceptual approach.

Essentially, in this piece sound objects are shown from different perspectives at each variation stage throughout the piece. Objects are repeated, combined with and overlapped by each other, saturating the acoustic space without, however, ever really transforming in time or undergoing a process of transformation which leaves them deeply transfigured. Regarding the perceptual role that repetition plays in Sciarrino, for instance, Gérard Pesson observes:

> Sciarrino, who has often insisted on the role of memory in the formal perception and his works, introduces the listener into a cylindrical universe where each figure will be repeated, sooner or later. [...] The sensation one can have of what has "mutated" however is always disturbed in the Sciarrinian form which is made of subtle discontinuities. [...] The Sciarrinian variant puts the memory to the test - is that what I have already heard? The listener to the music of Sciarrino always asks this question.[42]

In his observation, Pesson interestingly remarks how the temporal space in Sciarrino can be seen as cylindrical as a result of having musical elements brought to our attention repeatedly, that is to say, almost as a result of a cyclic rotation. Typically in this piece, as in other works by Sciarrino, many sound objects interchange by repetition, largely maintaining similar durations and pitches, according to the characteristics of what Meyer calls *conformant relationships*:

---

[42] "Sciarrino, qui a souvent insisté sur le rôle de la mémoire dans la perception formelle et ses œuvres, introduit l'auditeur dans un univers cylindrique où chaque figure sera répétée, tôt ou tard. [...] La sensation qu'on peut avoir de ce qui a « muté » à partir d'un énoncé est toujours troublée dans la forme sciarrinienne qui est faite de subtiles discontinuités. [...] La variante sciarrinienne met la mémoire en défaut – est-ce bien ce que j'ai déjà entendu ? L'auditeur de la musique de Sciarrino se pose toujours cette question." (Pesson G. : Héraclite, Démocrite et la Meduse, Paris, *Entretemps*, 1990, vol. 9, p.144)

> By conformant relationships I mean simply those in which one (more or less) identifiable, discrete musical event is related to another such event by similarity. [...] Our awareness of conformance depends not only upon the proximity between the variant and its model, but also [...] upon the degree of similarity between them. That is, the more all the parameters are duplicated in model and variant, the stronger the conformant relationship. This is especially the case with the primary pattern-forming parameters of pitch, duration, and harmony.[43]

The repetition of musical materials or events occurs at different moments throughout the piece, in different formal contexts, and, consequently, with different scopes and functions. On this basis, Meyer attributes two different terms to the repetition of musical materials, making a distinction between *processive* and *formal* conformant relationships, and, respectively, between *repetition* and *return*.

In the event that the repetition is characterized by a rather large temporal distance between equivalent units (as it is the case with the A and A^I sections), the repetition is intended to contribute to the formal articulation of a piece and to confer a psychological sensation of closure and unity; in this case the two equivalent musical events (A and A^I) will have a *formal* conformant relationship and the repetition (A^I) will be termed *return.*

In the opposite event of a repetition characterized by a closer temporal distance between equivalent units, the *repetition* will have a *processive* conformant relationship. Furthermore, close repetition will elicit rather different perceptual effects on the basis of small but decisive differences. During *exact* repetition occurring in a short time (as it is the case with minimal music), perception will likely enhance differences between similar events, thus putting identity in the background and difference in the foreground. During repetitions characterized by close but progressively varied occurrences (*gradual* modifications), conversely, attention will be involved in more fluid and organic variation processes, rather than in rigid and geometric processes, allowing a focus on the variation process at a much larger scale. In Meyer's words:

---

[43] Meyer, Leonard B. : *Explaining Music: Essay and Exploration*. Los Angeles, University of California Press, 1973, p. 46

> To use an analogy from visual experience: the relative constancy of size and shape of the stones in a mosaic facilitate our perception of its over-all pattern.[44]

After a brief overview of the different structural functions of *repetition* and *return*, we can look at specific sections in this work and focus on the perceptual and cognitive implications of repetition in this piece. For instance, from a listening perspective, it is clear that the first and second microformal section, A_1 and A_2, are in a *formal* conformant relationship, the former conferring a first psychological sensation of closure and unity, and the latter being intended as a *return* of A_1. Similarly, the third macroformal section, A^I, is also intended as a *return* of A and, having a *formal* conformant relationship with the former, articulates the piece into three macroformal units, conferring a psychological sensation of closure and recapitulation. In the second macroformal section B, conversely, gradual modifications of closer equivalent units (c^{II}) will have a *processive* conformant relationship. Within the compactness of this section, these *repetitions* might be intended to direct attention to the fluid and organic variation processes affecting the increasing interval width of the glissandi, for instance.

After clarifying the modalities of *repetition* and *return* in the micro- and macroformal domain, we can now address the question of the necessity and purpose of repetition in Sciarrino's aesthetics. As we have just seen, in a relationship of diversity and similarity, repetition is necessary to effect a comparison among elements. In the light of this consideration, the anamorphic process can be seen to not only affect the sound objects and their variation stages (microform), but also the choices of formal arrangement of the musical material (macroform).

As mentioned earlier in this chapter, the microformal development in this piece unwinds around the observation of the musical material from various listening perspectives

---

[44] Ibid, pp. 53-54.

(e.g. *a*-a^{I}-a^{II}, *b*-b^{I}-b^{II}, etc.), obtained by means of a transfiguration of the sound objects' most defining components (e.g. duration, pitch, direction). Anamorphosis has thus been identified as a generative principle for the different sound objects and their variations.

In some ways, anamorphosis can also be considered to be at the basis of the formal choices that integrate the micromaterial at a macroformal level. This is not to claim that the arrangement of the material at the macroformal level is directly affected by an anamorphic transfiguration, but that the material is arranged with the aim of reproducing the perceptual mechanisms that are at play during a process of recognition of materials transfigured by anamorphosis.

Looking at the diagram, for instance, we see that repetition is largely present in the first microsection A_1 , from bar 1 to bar 9 (see figure 2), totally centered on object *a* and its variations (i.e. *a*, a^{I}, a^{II}), where *a* is first played by the cello at bar 1, then a_1 at bar 2 in the viola, a_2 at bar 3 again in the cello, and so on until bar 7. Combining different perceptual perspectives on the same sound object (e.g. *a*-a^{I}-a^{II}), the macroform here aims at reproducing the same *cognitive process* that allows the mind to operate comparative juxtapositions of elements in order to make possible a recognition.

If the micro material is made up of the sound objects and their variations, the macroform is the process of comparison between sound objects aimed at defining identities and exploring relations of reciprocal similarity or diversity, thus the unfolding in time of all the possible identifiable relationships within this material. In this framework, the form of a piece of music can be understood as a representation of the mental space in which the 'observation' and comparison of the sound object takes place. In Sciarrino's words:

> The form is that strategy of the composer which arranges the parts of a work. [...] If the link between the sound events takes place in our mind, out of time, with greater reason

> we must affirm that the musical logic is in itself spatial. [...] its organization, its logical connections come to our mind from the visual world, from the world of space.[45]

In this sense, the formal structure of this piece represents the mental space in which all sound objects and their relationships temporarily exist when they are perceived, compared and recognized. The central role this process of comparison plays in this work, as also in other works by Sciarrino, explains why his music is often characterized by the repetition and variation of a few defined musical objects. We will see later that substantial and contextual variations involving the sound objects are often the formal focus in the music of Sciarrino - also because of the confluence of various perceptual dimensions (i.e. temporal, visual, etc.) at the core of his compositional thought. In the case of this work, for instance, space has been identified as the dimension that allows for the different perspectives of the sound objects and their anamorphoses, but also as the ever changing mental space where the listening experience takes place and in which memory and consciousness bring different aspects of the sound objects into relationship with one another.

The form, intended as the time in which the listening experience takes place, can be understood as comparable to the accumulation of different perspectives on the same object in the context of this specific work. As we will see fully in the next chapter - which is dedicated to temporality - the time in which our listening experience takes place is also not simply one in which musical events take place linearly, but rather one within which several temporalities are overlapped.

In the light of all these considerations, it is possible to see the spatial dimension, where 'space' is intended as a multifaceted dimension in which sound objects and events are in relation with

---

[45] "La forma è quella strategia del compositore che dispone le parti di un'opera. [...] Se il legame fra gli eventi sonori avviene nella nostra mente, fuori dal tempo, a maggior ragione dobbiamo affermare che la logica musicale è di per sé spaziale. [...] la sua organizzazione, le sue connessioni logiche provengono alla nostra mente dal mondo visivo, dal mondo dello spazio." (Sciarrino S. : *Le figure della musica da Beethoven a oggi,* Milano, Edizioni Ricordi, 1998, p.60)

one another, as a matter of central interest in Sciarrino's music and compositional thought, being both a dimension of musical perception and of musical organization in his music.

3.5 Conclusions

This analysis of the first string quartet from *Sei Quartetti Brevi* was conducted with the aim of illustrating some ways in which Sciarrino relates to his own compositional material, particularly in relation to those compositional aspects by which the spatial component could be seen as having a key role in his formal approach, from the choice of microformal materials to that of macroformal aggregating mechanisms. As anticipated in the introduction, the scope of this analysis has not been to conduct an exhaustive investigation of Sciarrino's compositional style, but rather to explore some of the ways in which the composer relates to his materials, from both a micro- and macro-formal perspective, by looking at some significant passages of this piece.

My interest has focused on those specific aspects that would highlight a link between Sciarrino's compositional strategies and a spatial conception of music at any level in the work. Anamorphosis and the principles of organization (*multiplication* and *accumulation* processes) are some of the compositional strategies that effectively translate this link in the context of this specific score. Furthermore, such strategies have also highlighted the composer's awareness of the perceptual reception of the musical content and his attention towards the cognitive components of the listening process. In the case of anamorphosis, for instance, the anamorphic process plays a role not only in the creation of the sound objects and their variation stages (microform), but also in the formal arrangement of the musical material, by

virtue of reproducing at the formal level the perceptual mechanisms that are at play in the recognition of materials transfigured by anamorphosis (macroform).

As we will see in the next chapter, Sciarrino's attention towards the perceptual and cognitive aspects of the reception of musical material is perhaps the one aspect that goes beyond this specific work and can be considered a typical element of his compositional approach. The act of composing therefore not only translates into displaying different listening perspectives on the musical materials (e.g. anamorphosis), but also into transmitting and suggesting the appropriate way to understand them.

CHAPTER 4

Allegoria della Notte

4.1 Introduction

In the analysis of the first string quartet from *Sei quartetti brevi* I demonstrated how some compositional strategies adopted by Sciarrino relate to a spatial conception of sound and form. I showed how perspective and anamorphosis can affect musical objects and their variations within a given piece, as well as the overall formal structure of a piece.

In the following analysis of *Allegoria della notte*[46] (1985) for violin and orchestra, a work which draws largely on Mendelssohn's Violin Concerto, I focus on the relationship between space and temporality. I address different ways by which a spatial logic affects the compositional materials, and demonstrate that what organizes sound objects in time in this work is not merely the principles of organizations (which themselves draw on spatial properties, as shown in the previous chapter in relation to *Sei quartetti brevi I*), but also a conception of temporality that responds to a spatial logic.

Following from the previous chapter, this analysis will proceed through four stages: 1) isolation of the excerpts from Mendelssohn's Violin Concerto from Sciarrino's original materials; 2) classification of Sciarrino's sound objects on the basis of similarities and differences; 3) illustration of the formal processes through which the material is organized in time; 4) possible interpretations of the composer's formal strategies in relation to the temporal

[46] Allegory of Night

structure of this work.[47]

After reconstructing the structure that organizes Mendelssohn's and Sciarrino's materials in this work, I clarify how Sciarrino's compositional approach can be seen to embrace a spatial logic, starting from Sciarrino's sound objects and extending to formal processes and temporal structures. *Allegoria della notte* provides a case study of what Sciarrino terms *window form*[48], a formal prototype which follows from Bergson's concept of time and has been employed by Sciarrino in many of his works (e.g. *Muro d'orizzonte* for chamber ensembe, *L'addio a Trachis* for harp).

Applications of this prototype with reference to *Allegoria della notte* and a short excursus into other works provides an understanding of the basic mechanisms of functioning of the *window form*, after which I will address perceptual implications of the window form. By examining why Sciarrino employs processes of interference and periodicity, it is possible to frame them in the light of a spatial logic and to show how Sciarrino's reflection on temporality also centres around matters of perception.

4.2 Allegoria della notte

Allegoria della notte (1985) is a one-movement work for violin and orchestra whose conceptual core dates back to 1976[49]. The late seventies are, for Sciarrino, a time of fruitful artistic production, particularly concerning works for orchestra or soloists and orchestra, such as *Variazioni* (1975) for cello and orchestra, *Berceuse* (1977) for orchestra, and *Un'immagine*

---

47 This methodology is based on the aesthetic-cognitive approach by Francesco Giomi and Marco Ligabue with the exception that my analysis will address contemporary instrumental music instead of electroacoustic music; for this reason I will take into account both perceptual criteria and information provided by the composer in the score.

48 Sciarrino S. : *Le figure della musica da Beethoven a oggi*, Milano, Ed. Ricordi, 1998, p,97

49 Sciarrino, Salvatore : *Carte da suono*, Palermo, Edizioni Novecento, 2001, p.126-7

*di Arpocrat*e (1979) for piano, orchestra and mixed choir, among others. *Allegoria della notte* was premiered at the 1985 Venice Biennale by the RAI National Symphony Orchestra, conducted by David Shallon, and Salvatore Accardo (the work's dedicatee together with Resy Accardo) as the violin soloist.[50]

About this piece, Sciarrino wrote that *Allegoria della notte* is "the other side of Planet Mendelssohn - the uninhabited one"[51]. For this work Sciarrino borrowed materials from Mendelssohn's Violin Concerto in E minor, Op. 64, placing fragments of the Concerto in different sections throughout the piece. As opposed to other works by Sciarrino similar in formal structure (see § 4.4), here Sciarrino employs a combination of original and borrowed materials. This combination, although deliberately incorporated within a unitary conception, generates the same sense of interference which Sciarrino talks about when referring to the homonymous work by Michelangelo in his book *Le figure della musica*. *Allegoria della notte* is in fact a title which refers historically to Michelangelo's Medici Chapel at San Lorenzo in Florence, and, more specifically, the statues representing the allegorical figures of Day and Night on the Tomb of Giuliano de' Medici (1524-34) in the New Sacristy.

A first key to reading the relationship between borrowed and original materials in this work by Sciarrino lies just between the lines of what he writes about the homonymous work by Michelangelo in *Le figure della musica,* and precisely about the sculptures representing the two allegorical figures of Night and Day resting on the sarcophagus. Sciarrino points out that the Tomb of Giuliano de' Medici, towards which most critics seem to have expressed unanimous and respectful admiration, praising its unity of architecture and sculpture, represents in his eyes a rather unconventional case of an incongruence of materials.

---

50 Salvatore Sciarrino on his own website: <https://www.salvatoresciarrino.eu/data/composition/ita/97.html> (accessed: 02.02.2020)

51 Sciarrino, Salvatore : *Carte da suono*, Palermo, Edizioni Novecento, 2001, p.126 (see Appendix 1)

This incongruence is the result of an unusual type of contact between objects and surfaces (the sculptures and the sarcophagus), as well as between objects and materials (the statues and the marble). What is evident at first glance is the two Allegories' posture, which makes them look provisionally placed on the sarcophagus, and secondly the rough marble sheet onto which they rest, (specially crafted by Michelangelo to appear rough and unfinished) which interrupts any contiguity of relationship between them and the sarcophagus. In the latter case - Sciarrino points out - incongruence is the result of a contact between objects and surfaces that deliberately refuses any solution of continuity: the sense of interference is caused by contiguity of materials without apparent relationship, although purposely subjugated to a unitary conception. In light of these details, he considers Michelangelo the inventor of discontinuity[52] and the first artist to make systematic use of it in his work.

It is interesting to notice how in Sciarrino's interpretation of this work by Michelangelo, he touches on several aspects which, however intentionally or not, can also be traced back to Sciarrino's homonymous work. As we will see in the next section, the same aspects can also be understood to be at the core of the formal structure of his work for violin and orchestra, as well as window form in general: firstly, an element of *interference* or incongruence; secondly, the use of *discontinuity* within a unitary formal conception; and thirdly, the presence of deliberately *indistinct* matter as a structural element of contrast (or discontinuity).

---

[52] Sciarrino Salvatore : *Le figure della musica da Beethoven a oggi*, Milano, Ed. Ricordi, 1998, p.34

4.3 Sound Objects Classification

As mentioned earlier, in *Allegoria della notte* Sciarrino formally combines two groups of materials and organizes them according to the so-called window form: borrowed materials from Mendelssohn's Violin Concerto (which I will refer to as material *A*) and original materials composed by Sciarrino (material *B*). Before I address the theoretical assumptions and the basic functioning mechanisms of the window form, thus exploring dynamics of discontinuity and interference between materials *A* and *B* in the formal construct, I will firstly proceed by identifying micro-units (sound objects) only within Sciarrino's materials which will be classified into a small number of sound-object types.

This process allows not only a reconstruction of the ways in which the original material composed by Sciarrino (material *B*) was conceived and organized in the piece, but also an identification of important relationships within it, specifically both among different object types (e.g. *a*, *b*, *c*) and among variations of same object type (e.g. a^{I} , a^{II} , a^{III}). Such relationships are of great importance in highlighting the role of *indistinctness* as a structural element of contrast in this work, as mentioned at the end of the previous section about *Allegoria della notte*.

Within material *B*, the sound objects that Sciarrino uses can be classified into 4 main types, based on profile, articulation, duration and pitch content:

1. horizontal and linear (sound objects *a*, a^{I}, a^{II});
2. horizontal with perturbative elements (*b,* b^{I}, b^{II});
3. linear with directional movement (*c,* c^{I}, c^{II});
4. percussive (*d,* d^{I}, d^{II}).

Type-1 sound objects (*a*) are mostly long stable sounds, either with a stable pitch content or unpitched. Based on their duration and pitch content, these sound objects can further be classified as: (*a*) long sounds with a stable pitch, (a^{I}) shorter sounds with a more blurred pitch content, and (a^{II}) considerably shorter, pitched or unpitched, sounds (either displayed individually or in sequence). Examples of type-1 sound objects from the score include multiphonics (woodwinds), ordinary sounds (with or without vibrato), natural-harmonic ricochet, repetitions of natural harmonics (solo violin), natural and artificial harmonics (with or without damper), natural- / artificial-harmonic ricochets, repetitions of ordinary sounds and natural harmonics (strings), breath sounds with or without tongue stops, echo sounds and muted sounds (brass).



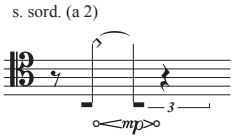
Example 7.1

a - Ordinary sound (violin)



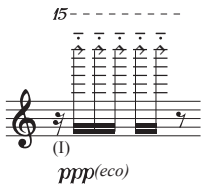
Example 7.2

a^{I} - Multiphonic (clarinet)



Example 7.3

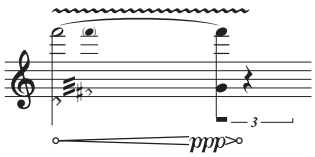
a^{II} - Breath sound (brass)



Example 7.4

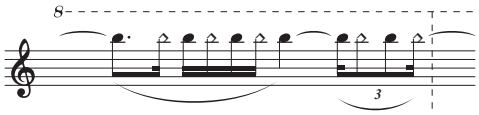
a^{II} - Repetition of natural harmonics (violin)

Type-2 sound objects (*b*) are mostly long sounds with elements of instability or perturbation, which could be anything from pitch to articulation. Type-2 sound objects can further be classified as: (*b*) long sounds with an unstable pitch, (b^{I}) shorter sounds with a more blurred pitch content, and (b^{II}) considerably shorter pitched or unpitched sounds, either displayed individually or grouped into irregular divisions (e.g. quaver triplets, semiquaver quadruplet and semiquaver quintuplets). Examples of type-2 objects include trills (harp), bisbigliandi (woodwinds), breath with flutter-tonguing (brass), wa-wa mute tremolos (brass), rolls (percussion), pressure trills[53], natural- / artificial-harmonic trills and tremolos, with or without damper (strings).



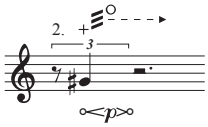
Example 8.1

b - Bisbigliando (clarinet)



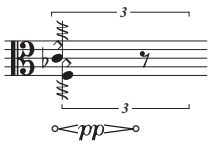
Example 8.2

b^{I} - Pressure trill (violin)



Example 8.3

b^{II} - Wa-wa tremolo (brass)

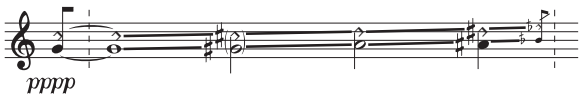


Example 8.4

b^{II} - Artificial-harmonic tremolo (strings)

[53] Trills produced by alternating between ordinary pressure and light pressure on a harmonic node.

Type-3 sound objects are mostly legato and tenuto gestures that imply a directional movement: they can be glissandi, arpeggios and note sequences in any register and any intervallic structure. Examples of type-3 objects include jet whistles (flute), glissandi (brass, harp), roll glissandi (percussion), ascending / descending ordinary-sound sequences and glissandi (solo violin), natural- / artificial-harmonic glissandi, natural-harmonic double glissandi, ascending / descending natural-harmonic sequences, and string-crossing natural-harmonic arpeggios (strings). Based on their duration and pitch content, they can further be classified as: (*c*) long and slow upward/downward gestures with a stable pitch content, (c^{I}) shorter sounds with a more blurred pitch content, and (c^{II}) considerably shorter gestures, with more and more indistinct pitch content.



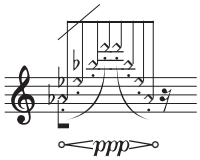
Example 9.1

c - Artificial-harmonic glissando (strings)



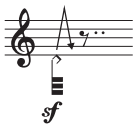
Example 9.2

c - Roll glissando (timpani)



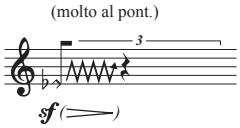
Example 9.3

c^{I} - String-crossing natural-harmonic arpeggios (violin)



Example 9.4

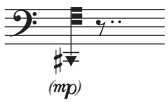
c^{II} - Jet whistles (flute)



Example 9.5

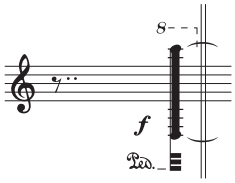
c^{II} - Brushing glissando (strings)

Type-4 sound objects are mostly short percussive sounds and chords, either with a sforzato or a staccato articulation. They can be found either as single objects (e.g. a single semiquaver or demisemiquaver) or grouped into irregular divisions (e.g. semiquaver quintuplets). Examples of type-4 objects include tongue rams, harmonic clusters and shadow clusters (flute), tongue stops (horn), mouthpiece strokes (trombone), percussion strokes, clusters (celesta), pizzicatos and tapping (strings). Given their short duration, type-4 sound objects can only be classified based on their pitch content as: (*d*) single-pitch sounds, (*d* ^{I}) multiple-pitch sounds, however blurred their pitch content might be, (*d* ^{II}) unpitched sounds.



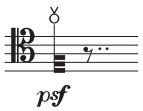
Example 10.1

d - Tongue rams (bassoon)



Example 10.2

d ^{I} - Clusters (celesta)



Example 10.3

d II - Mouthpiece stroke (brass)

The following table provides a summary of the types of sound objects mentioned above with a more detailed classification by instrument:

Instruments	**Sound Object Classification**			
	Type 1: horizontal and linear	*Type 2: horizontal with perturbative elements*	*Type 3: linear with directional movement*	*Type 4: percussive*
Woodwinds	*a*I) multiphonics (cl, ob, bsn) *a*II) breath, in and out (fl)	*b*) harmonic trills / bisbigliandi (fl, cl)	*c*II) jet whistles (fl)	*d*) tongue rams; *d* I) harmonic clusters and shadow clusters, also in sequence (fl)
Brass	*a*I) echo and muted sounds (hn); *a*II) breath, (hn, tpt, tbn); *a*II) breath and tongue stops (hn, tpt, tbn)	*b*II) breath with flutter-tonguing (hn, tpt, tbn); *b*II) wa-wa mute tremolos (tpt, tbn).	*c*) glissandi (tpt, tbn)	*d*) tongue stops (hn); *d* II) mouthpiece strokes (tbn)
Percussion		*b*) rolls (bass drum, timpani - on the plate, thundersheet)	*c*) glissando rolls (timpani - on the plate, thundersheet)	*d* I) semiquaver clusters (celesta); *d* II) single strokes (claves, bass drum, tam tam, tubular bell, plates)
Harp		*b*II) trills	*c*II) glissandi	

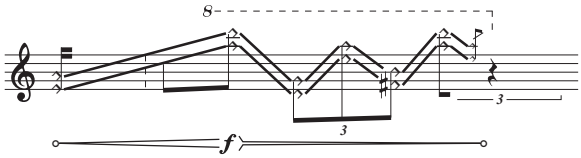
Solo violin	*a*) ordinary sounds (with or without vibrato); a^{II}) short repetitions of ordinary sounds and natural harmonics; a^{II}) ordinary-sound and natural-harmonic ricochet	*b* - b^{I}) microtonal glissandi, natural-harmonic tremolos, b^{I}) pressure trills (often in quaver triplets, semiquaver quadruplets and semiquaver quintuplets)	*c*) ordinary-sound / natural-harmonic glissandi; c^{I}) ordinary-sound / natural-harmonic / artificial-harmonic sequences; c^{I}) natural-harmonic scales and trills; c^{I}) string crossing natural-harmonic arpeggios (upward, downward, upward-and-downward)	
Strings	*a*) natural / artificial harmonics (with / without damper); a^{II}) natural-harmonic / artificial-harmonic repetitions and ricochet	*b* - b^{I}) natural- / artificial-harmonic trills and tremolos (with or without damper)	*c*) single or double natural- / artificial-harmonic glissandi; c^{I}) natural- / artificial-harmonic glissando tremolos; c^{I}) natural-harmonic sequences (triplets and sixtuplets) c^{I}) string crossing natural-harmonic arpeggios (upward, downward); c^{II}) brushing glissandos	*d*) tapping; *d*) pizzicatos

Table 1. Classification of different sound objects in *Allegoria della notte*

Gradually throughout the piece, single objects are combined to create more and more complex figures, sometimes obtained by simple combinations of objects of the same type (e.g. combination of glissandi in the harp, see example 11.1), sometimes generated by combinations of different variations within the same types of objects (e.g. $a + a^{I}$) or the same degrees of variation within the different types of objects (e.g. $a^{II} + b^{II}$, see example 11.2), or at other times generated by combination of completely different objects (e.g. $a + c^{I} + b^{I}$, see example 11.3) .

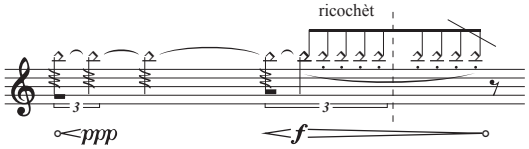
It should be noted that even combinations of the same object-type can generate hybrid figures at times: despite being composed of objects of a single category, these figures can feature

characteristics similar to objects belonging to other categories. It is the case, for instance, for ascending sequences of tongue rams (see example 11.4) formed by percussive objects (type *d*) which, combined in sequence, identify gestures directed in register (type *c*).



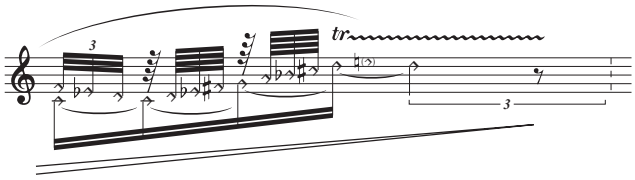
Example 11.1

Sequence of glissandi **(**$c^{II} + c^{II}$**)** in the strings



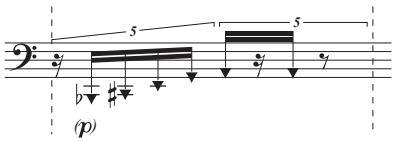
Example 11.2

Sequence composed of a natural-harmonic tremolo (b^{II}) and ricochet of natural harmonics (a^{II}) in the strings.



Example 11.3

Natural harmonics (*a*) in the strings, in combination with descending and ascending sequences of natural harmonics ($c^I + c^I + c^I$) followed by a trill of natural harmonics (b^I).



Example 11.4

Ascending sequence (*c* / type-4 profile) of tongue rams (*d* / type-3 object) in the bassoon.

4.4 The Role of the Indistinct in Perspective

Having illustrated and classified the main sound-object types, I will now discuss Sciarrino's choice of materials in relation to the formal discourse. In the previous section, I mentioned that one of the key elements of the formal structure of this work for violin and orchestra is the presence of intentionally *indistinct* matter as a structural element of contrast. The function of Sciarrino's materials is to create interference and contrast with respect to the excerpts from Mendelssohn's violin concerto, as we will see more in detail in the next section about the window form (§ 4.5). As with the marble intentionally worked to appear rough in Michelangelo's sculpture, here too Sciarrino incorporates materials that have been worked to appear somewhat deliberately *indistinct* within a unitary conception. Whereas the marble had the function of formally connecting more hierarchically important elements (i.e. the Allegory statues in the Medici Chapel), Sciarrino's materials play an equal if not more prominent role in this work with respect to Mendelssohn's original materials. This is due to several factors, but mainly to the amount of formal space that Sciarrino's original materials take up on the score compared to borrowed materials from Mendelssohn's Violin Concerto (over 160 bars out of the total of 194 bars), and to the static role that Mendelssohn's materials play compared to Sciarrino's boundless and overshadowing sound landscape.

By observing the formal profiles of materials *A* and *B* on the score of *Allegoria della notte*, one can easily distinguish one from the other: Mendelssohn's excerpts (*A*) stand out for their compact and almost vertical edges, further emphasized by the use of the full orchestra. Within these well-defined edges, they present clear phrasings and homorhythm, further highlighted by homogeneous and mostly strong dynamics (*f- ff*). Unlike these borrowed materials, Sciarrino's original materials (*B*) feature rather fluid contours, blurred melodic lines, a subtle lightness of texture and a selective use of register. Looking at the score, it

appears almost as if Sciarrino's materials were darkening Mendelssohn's concerto with clouds of indistinct matter. This process of casting shadows on Mendelssohn's clear and compact material recalls the use of gold on traditional 18th century Japanese folding screen paintings (see example 12), about which architect Sōsuke Fujimoto writes:

> "It could also be described as like being in the clouds. On traditional Japanese folding screen paintings, the individual scenes depicted are often separated by bands of clouds. Rather than being depictions of actual clouds, they serve as a background motif that may connect, separate or relate the scenes set between them. Their vacuity creates a diversity of relationships. The ultimate boundary, like those clouds, is a transparent thing that can establish a multiplicity of relationships, even among phenomena that exist in different temporal and spatial dimensions." [54]



Example 12

Genji Monogatari (lit. The Tale of the 'Shining Prince'), Unknown Japanese artist

Six-panel folding screen, 18th Century [55]

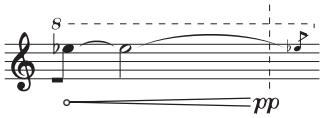
Unlike gold, though, which, albeit with fluid contours, dominates the underlying scenes with shiny uniformity, material *B* displays a variety of inner shades. This multitude of shades is given by the heterogeneity of characteristics among the four sound-object groups (i.e. *a, b, c, d*), as much as by the diversity in the degrees of variation within each sound-object type (i.e. x, x^{I}, x^{II}). The latter aspect in particular, by showcasing different perspectives within the same material, provides several takes of the same sound object (x), as if looked at from different perspectives. In other words, each variation (x^{I}, x^{II}) of a given sound object (x)

[54] Kuma, Kengo (ed.) : *Kyokai: A Japanese Technique for Articulating Space*, Tokyo, Tankosha, 2010, p.133

[55] *Delicate Divide: The Art of the Japanese Screen,* Scholten Japanese Art, New York, March 2001, Cat. n.8

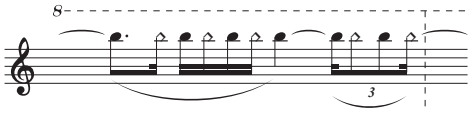
can be contextualized as a distinct degree of focus: any object in its main state (x) can be seen as corresponding to the foreground or maximum degree of focus, whereas the first stage of variation (x^{I}) to the middle ground or a slightly blurred focus and the second stage of variation (x^{II}) to the background or an even more blurred focus. It might be important to say a few words about the parameters at play in the creation of this sense of 'sound perspective' among objects, these being *duration*, *directional movement*, *pitch content,* and *dynamics*. Within a single stage of variation, these parameters can occur either individually or in combination with one another, and can also vary greatly from object-type to object-type.

In the case of horizontal and/or linear sound objects (e.g. type 1, 2 and 3), the parameter that conveys the sense of perspective is *duration*. This can be easily explained by understanding that linear perspective is enhanced by the perception of diminishing size, thus objects that are closest to the viewer appear proportionally bigger than those further away. Similarly, some horizontal sound objects (e.g. *a, b*) on the score are significantly longer than others, as if closer to the viewer, whereas others (e.g. a^{I} , b^{I}) are progressively shorter, as seen from afar, until they become points or lines of points (e.g. a^{II}, b^{II}). Interestingly, the compositional material Sciarrino employs is so structured as to have background-foreground relationships occurring among different degrees of variations within the same object-type (e.g. a-a^{I}-a^{II}) as well as across different object-types (e.g. a-b^{I}-a^{II}), as example 13 shows.



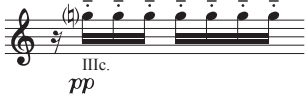
Example 13.1

a - Ordinary sound (violin)



Example 13.2

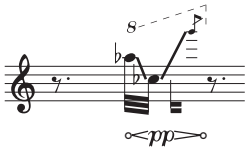
b^{I} - Pressure trills (violin)



Example 13.3

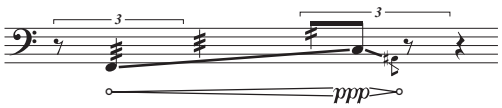
a^{II} - Repetition of ordinary sounds (violin)

In addition to this, some linear sound-objects, such as those featuring gestures that imply a directional movement (e.g. type 3), behave much in the same way as parallel lines converging at a vanishing point on the horizon line. Their *directional movement* in the register resembles that of lines converging in the distance, their duration shortening either in direct or inverse proportion with their intervallic structure (see example 14).



Example 14.1

Sequence of glissandi (harp)



Example 14.2

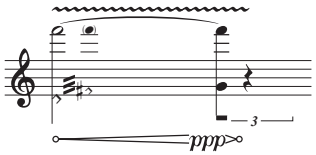
Sequence of glissandi (timpani)

At other times, the parameter that identifies the variation is *pitch content*. Being applicable to all pitched sound-objects, this case is true for most object-types and can be explained by understanding that, in a given auditory space, sources that are closest to the listener appear to have a more discernible content than those further away. In relation to this, it is important to specify that by variations in pitch content I do not mean so much variations in pitch as a response to a moving sound source, such as the Doppler effect[56], but rather variations in the articulation of pitch in a given sound object, which, in turn, affect the distinguishability of the pitch content. It is for instance the case of pressure trills (b^{l}), which can be seen as a different degree of perspective on ordinary sounds (*a*), where the once stable pitch now disintegrates by means of quick changes in finger pressure (see example 15). Such very rapid pitch articulations, which are present throughout the score in various ways

[56] "The Doppler effect is the change in the frequency with which waves (of sound or light) from a given source reach an observer when the source and the observer are in motion with respect to each other, so that the frequency increases or decreases according to the speed at which the distance is decreasing or increasing."

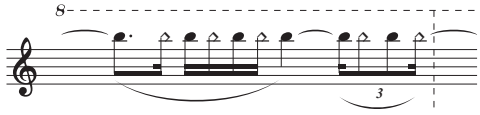
("Doppler effect". Merriam-Webster.com. 2020. https://www.merriam-webster.com)

(vibratos, harmonic trills, pressure trills, etc.), make it increasingly difficult to define the pitches.



Example 15.1

b - Bisbigliando (clarinet)



Example 15.2

b^{I} - Pressure trill (violin)

Dynamics too play a role in reinforcing the music's spatial dimension. In relation to this, Sciarrino affirms that:

> "Intensity is a parameter that presides over one of the fundamental qualities of sound: dynamics, though which we distinguish *piano* from *forte*[57]. Such distinction is rooted in spatiality. A sound (played) *forte* triggers the body's physical and psychic alarm system, it reaches out to touch us, it threatens, hits, and overwhelms us. A sound (played) *piano* moves away from us and our pulse gets quieter. Our music has assumed in itself, through a millenary process, an illusion of closeness and distance, that is of environmental space."[58]

Intuitively, by associating sound intensity with our subjective sense of space, we would be inclined to associate the maximum degree of focus (*x*) on a sound object on the foreground,

---

[57] Both terms *piano* and *forte* can be translated quite differently from Italian, according to whether they are interpreted as adverbs or adjectives. *Forte*, as an adverb, can be translated as 'loudly', whereas, as an adjective, it is commonly translated as 'strong'. Sciarrino is here playing with the two different meanings of *forte* as 'loudly' and 'strong'.

[58] "L'intensità è il parametro che presiede a una delle qualità fondamentali del suono: la dinamica, per cui distinguiamo il *piano* e il *forte*. Tale distinzione affonda le sue radici nella spazialità. Un suono *forte* mette in allarme fisico e psichico il nostro corpo, si protende a toccare, ci minaccia, ci investe, ci travolge. Un suono *piano* si allontana e le nostre pulsazioni si acquietano. La nostra musica ha assunto dentro di sé, attraverso un processo millenario, l'illusione della vicinanza e della lontananza, ovvero dello *spazio ambientale*."
Sciarrino S. : *Le figure della musica da Beethoven a oggi*, Milano, Ed. Ricordi, 1998, p. 67

and therefore to a louder dynamic (*f* - *fff*). In the same way, we would also be inclined to associate weaker degrees of focus (x^{II}) to sound objects on the background and, consequently, to softer dynamics (*ppp* - *p*). While this correlation is most often confirmed, this is not always what happens on the score. At times, for instance, we find that a second degree of variation (x^{II}), usually associated with more distant perspectives, can be accompanied by a strong dynamic, which is apparently in contrast to what has been discussed so far. Blurred elements, however, can be contextualized in several ways, some of which might explain the use of the associated strong dynamic: the blurriness can, in fact, be given by excessive proximity, as opposed to excessive distance; or, alternatively, by a moving observation point in relation to which the object flows before our eyes at a speed that does not allow for optimal focus on the single elements; or even by a lack of optimal visual conditions (lack of light, for instance) in addition to excessive proximity, as well as by the sum of all of the above.

Regardless of which parameter is at play in the variation of the sound objects that make up this piece, in my classification I have observed that higher degrees of variation (i.e. x^{I}, x^{II}) are associated with higher degrees of *indistinctness* and can therefore be seen as progressively blurred perspectives on sound objects *a*, *b* and *c*. This, on the whole, leads to consider the totality of material *B* as a vast sound landscape that flows before our eyes - or rather, our ears - with elements, near and far away, and in and out of focus. It is ultimately the presence of foreground-background structures that suggests the idea of vastness, of a sound matter that exists above or beyond the spaces that Mendelssohn inhabits, giving rise to indistinct and boundless soundscapes. Perhaps, even more than the quality of *indistinctness*, of the roughness in contrast to the refined, it is precisely this sense of boundlessness and vastness, also modulated by the differences in the various layers within it, that ultimately generates a sense of spatiality and thus confirms, at a perceptual level, the link between sound and space.

To conclude, in this section I have explored which aspects of Sciarrino's sound world contribute to generating a sense of indistinctness, which is what primarily evokes a sense of spatiality. By looking into the specific properties of the four sound-objects types classified, as well as the common traits in their parameters of variations, we have observed that in this work the compositional material is shaped and organized as to create a sense of sound perspective within it. Sciarrino recreates this sense of spatiality by setting background-foreground relationships among sound objects; relationships which, in turn, are achieved as a result of a process of variation on several parameters (namely *duration*, *directional movement, pitch conten*t and *dynamics*), in order to achieve higher degrees of indistinctness. Interestingly, the compositional material that Sciarrino employs is structured so as to have background-foreground relationships occurring in all directions: among the same degrees of variations across different categories (e.g. *pitch content* for a^{I}-b^{I}-c^{I}) and among different degrees of variations within the same object-types (e.g. *duration* for *a,* a^{I}, a^{II}) as well as across categories (e.g. *a*-b^{I}-a^{II}).

Having investigated the relationship between *sound* and space, and specifically how the compositional material is arranged to convey a spatial dimension, I will move on to the next section, where I look at the connection between *time* and space, a fundamental element at the basis of the concept of window form, and explore further aspects of this formal model[59] in an attempt to fully understand the broader nature of the relationship between space and temporality in Sciarrino's music.

[59] The "window form".

4.5 Window Form

This analysis of *Allegoria della notte* will serve as a case study for the illustration of window form, while at the same time aiming at identifying and understanding the broader nature of the relationship between space and temporality (see also § 4.6). Besides addressing the fundamental theoretical assumptions behind window form and the basic mechanisms of its functioning, this analysis will ultimately show how Sciarrino's reflection on temporality also centers around matters of perception.

When using window form in his works, Sciarrino usually employs two (or more) distinguishable sound objects and organizes them within a structure where their intermittent interaction creates a background-foreground relationship at a cognitive level. This structure can be thought of as a virtual space in which one object takes on the role of a window frame, whereas the other the role of a landscape, parading on the horizon: one element is still (or motionless), the other is in motion. The function of window form is thus to formalize in music the coexistence, on the same perceptual plane, of elements characterized by different temporalities[60]. We will see shortly that the way temporalities are differentiated in Sciarrino's works mostly has to do with the nature of the compositional materials of the two elements that characterize the window form and to their relationship: one usually has a rather continuous nature in time, whereas the other has the quality to recur shortly at regularly- or irregularly-spaced intervals of time.

It is important to highlight that the fundamental theoretical assumption behind this process is the spatial representation of musical time. The notion of musical time is implicitly converted into that of physical space and, consequently, our perception of time made

[60] I will accept the definition of "temporality" as given in the Oxford English Dictionary: temporality is "the state of existing within or having some relationship with time".

comparable to the observation of a physical object or phenomenon, albeit in the context of a subjective perceptual experience. In the light of these considerations, it would appear to be no coincidence that in many works where Sciarrino employs window form, the flow of time is almost audible and rendered through a variety of sound objects that serve as metaphors for physical events by virtue of the particular relationship between sound and musical figure: imitation of drops falling (tongue rams) in *Come vengono prodotti gli incantesimi*, of heart beats (muted bass drum beats) in *Il suono e il tacere*, of pendulum-like movements in *L'Orologio di Bergson* (sequences of breath tones), of distant traffic passing by (multiphonics in the flute combined with low-register sounds in the contrabass clarinet) in *Carovane*, the opening movement of *Cantiere del poema.*

The two main basic mechanisms involved in window form are:

1. the *interference* of one element into the domain of another, so as to create discontinuity;
2. a different *periodicity*[61] between the two elements, the very basis on which the illusion of multiple time levels is built.

Both of these mechanisms obviously need to be explained and understood in Sciarrino's context. Concerning the first point, *interference* as a means to discontinuity, in *Allegoria della notte* this process involves two groups of materials, as should be clear by now: borrowed materials from Mendelssohn's Violin Concerto (group *A*) and original materials composed by Sciarrino (group *B*). As mentioned earlier, material *A* stands out from material *B* because of its well-defined contours, the use of the full orchestra, clear phrasings, homorhythm, and mostly consistent dynamics (*f- ff*), in contrast to the impalpable contours, the selective use of register,

[61] I will accept the definition of "periodicity" as given in the Oxford English Dictionary: periodicity is "the quality or character of being periodic; the tendency to recur at intervals".

and the lightness of texture of Sciarrino's original material. As much as they present micro-diversity, Sciarrino's materials, compared to Mendelssohn's, have characteristics that make them sufficiently homogeneous and capable of being blended in timbre, register and articulation, precisely for the quality of *indistinctness* that I mentioned earlier in § 4.4.

It is important to note that, in order to enhance the perception of a foreground-background relationship between two different objects (or groups, as is the case with materials *A* and *B* in this work), window form must rely on our collective ability to build relationships between similar elements, even when these occur intermittently. Despite discontinuity and intermittence being objective and structural aspects of this work, the process of detecting similarities and perceiving continuation is part of the subjective experience of the listener. We will see this more in detail in the ways in which window form relies on Gestalt principles[62] and how they affect the the listening experience. For now it will suffice to say that it is the *similarities* within *A* and within *B* as well as the *contrast* between materials *A* and *B* that make possible and facilitate the identification of these two groups of materials and consequently the effectiveness of window form in this work. Regardless of whether sound objects or groups of materials are employed in window form, what allows the listener to experience the presence of different temporalities is particularly the coexistence of different *periodicities,* where by periodicity I mean the tendency of an event to happen at regularly-spaced intervals.

Sciarrino observes that, in the absence of clocks and other instruments capable of measuring the passage of time, our perception of time is tied to the periodicity of physical and astronomical phenomena, that is to the frequency and succession of cyclical events. This primordial bond between space and time has influenced and is still believed to affect our

[62] The Gestalt Principles are a set of laws that describe how humans perceive and organize complex perceptual scenes. These principles describe how we have a tendency to simplify complex images by recognizing patterns and grouping similar elements. They are organized into five categories: Proximity, Similarity, Continuity, Closure, and Connectedness.

perception as well as our natural, internal processes[63]. It is with regards to this that the cyclicity of events in Sciarrino's music, a feature often observed in his works in window form, can be contextualized as a metaphor for periodicity of physical phenomena (e.g. the periodicity in birdsongs, heart beats, clock ticking, etc.). The periodicity of a musical object, which starts from its second repetition, is in fact decisive for understanding the functioning of window form: it is the frequency and regularity of the recurrence of these musical objects that allows us to perceive the form.

More often in works for solo instrument it is a single structurally prominent sound object that marks the passage of time. For instance in *L'orologio di Bergson* (1999), for solo flute, it is a harmonic cluster every four quavers (which in the course of the piece is opposed to pendulum-like sequences of breath tones). Similarly, in the case of *Come vengono prodotti gli incantesimi* (1985) for solo flute, jet whistles pierce through a continuous background of tongue-rams in sequences of semi quavers. The contrast between the two main objects is crucial: in both the above cases one object is dynamically soft, timbrally in the background, and has an element of continuity, whereas the other one is dynamically loud, timbrally piercing, and rhythmically punctual, with an almost percussion-like quality. The contrast between the two sound objects obviously affects our way of listening to them and makes us associate the former - having more markedly horizontal characteristics - with a background element (always present, almost like a static and continuous surface), and to associate the latter with a foreground element, emerging in its unpredictability from the continuous background layer of the quasi-immobile element.

Returning to the metaphor of the window and the landscape, there are specific elements that allow the perception of the two groups of materials (A and B) as distinct:

---

[63] Sciarrino S. : *Le figure della musica da Beethoven a oggi*, Milano, Ed. Ricordi, 1998, p.59

- at a micro-formal level, the clear and recognizable traits of one group compared to the other, as discussed in the previous paragraph;
- at a macro-formal level, the repetition or periodic occurrence of the micro-elements, with a high degree of similarity within each group.

It is clear that, while listening to the piece, it is not possible to instantly verify the actual similarities between two sound events occurring after some time, as could be done by examining a score; but we can rely on our ability to recognize identity, similarity and variation within a given time interval. Both the micro- and macro-formal levels are important so that, as listeners, we can perceive a sense of belonging of the single formal segments to the two macro-groups of compositional elements (A and B), as well as a continuous timeline despite the interruptions (as is the case with Mendelssohn's materials).

As briefly mentioned earlier, in window form the perception of musical time is implicitly converted into that of physical space, and consequently, our perception of time is made comparable to the observation of a physical space. At this point it is important to underline that the reason why window form is effective in conveying perceptually what it aims at conceptually, is both the fact that we are used to conceptualizing the temporal dimension in terms of the spatial dimension, and that our perceptual abilities are involved in auditory perception in much the same way as they are involved in visual perception.

As discussed in depth by Bregman[64] when investigating the mechanisms by which we hear complex auditory environments, auditory organization and phenomena have a direct parallel in vision. It is beyond the scope of this analysis to go into this topic in great detail, however, it is clear from the studies conducted by Bregman that our ability to organize auditory materials is rooted in our perceptual abilities and relies on Gestalt principles of

[64] Bregman, Albert S. : *Auditory Scene Analysis: The Perceptual Organization of Sound*, Cambridge, MIT Press, 1990

grouping to interpret them. Some of these principles, specifically those that explain how we perceive parts of objects and form whole objects, have a pivotal role in the perception of window form.

Firstly, the law of *similarity* states that elements that are similar are perceived to be related, as opposed to elements that are dissimilar. On the basis of the similarities within material A[65] as well as within material B[66], which I have identified in the previous paragraph (§ 4.4), this principle allows us to detect the internal similarities within material A and material B over time, albeit with their micro-diversity. Thanks to this principle, we can consequently perceive the heterogeneity given by the succession of many short and always different formal zones as related to one another and connected over time, that is to say as an *alternation* of two large macro-groups of materials which follow one another in various subgroups of heterogeneous materials. The law of *similarity* also allows us to connect different micro-elements over time and consequently to perceive this work as a series of formal episodes showcasing elements belonging to the two large macro-groups (A and B), rather than a sequence of short formal episodes unrelated to one another.

Secondly, the principle of *good form* refers to the tendency to group together elements of similar traits, such as colour, shape, etc. (i.e. material B, even with the micro-diversity that has been object of discussion in § 4.3). Combined with the law of *similarity* discussed above, which allows us to detect similarities among short formal episodes, this principle allows us to group such short formal episodes together and recognize them as belonging to a given macro-group.

Lastly, the law of *good continuation* is the principle that allows us to perceive two objects as uninterrupted, even when there are interferences and interactions between the two.

---

[65] Defined edges, clear phrasings, homorhythm, homogeneous and rather loud dynamics (*mf- ff*).

[66] Fluid contours, blurred melodic lines, selective use of the register and light textures.

Combined with the laws of *similarity* and *good form,* which allow us to detect similarities among short formal episodes and to recognize them as belonging to a given macro-group, this principle allows us to perceive the different segments of materials borrowed from Mendelssohn's Violin Concerto as continuous over time, despite the interference of Sciarrino's original materials. All these principles combined result in the detection of similarities within groups *A* and *B* and of continuity despite interferences, and, consequently, allow us to connect the intermittent occurrence of similar elements with one another in time.

To conclude, in this section I have explored the connection between time and space in Sciarrino's works, examining conceptual assumptions and mechanisms at the basis of window form. I have identified *interference* and *periodicity* as the two formal aspects that contribute to the effectiveness of window form. Interestingly, the employment of interference and periodicity to create background-foreground relationships between the two groups of materials (*A* and *B*) ultimately reinforces the sense of spatiality mentioned in the previous section about the use of *indistinctness.* At this point of the analysis of *Allegoria della notte* we can see that all elements, at the level of the micro-form as well as at the macro-form, work in synergy to create a sense of sound perspective: the use of *interference* and *periodicity* at the macro-formal level to create background-foreground relationships between Sciarrino's and Mendelssohn's groups of materials, and the use of *indistinctness* at the micro-formal level to establish background-foreground relationships within Sciarrino's original materials.

We have also seen how window form, and by extension Sciarrino's view of temporality, is centered around matters of perception; Gestalt laws of perceptual organization (namely the law of *similarity*, of *good form,* and *good continuation*) play a pivotal role in window form, and more specifically in how we perceive parts of objects and form whole objects. After having investigated the relationship between *sound* and space (§ 4.4) as well as that between *time* and space (§ 4.5), in the next section I explore the function of interference

and periodicity in the attempt to fully understand the broader nature of the relationship between space and temporality in Sciarrino.

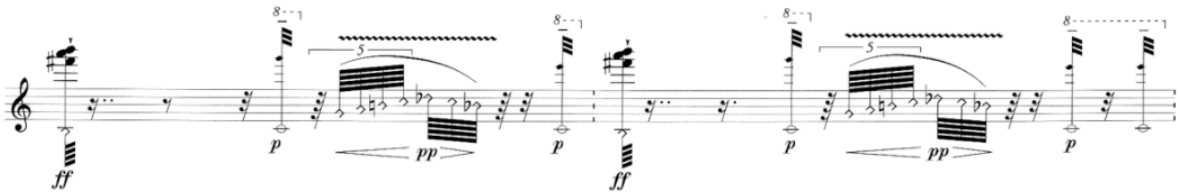
4.6 On Temporality: the Role of Periodicity and Interference

When referring to a spatial conception of sound and form it is important to clarify in which ways the material in Sciarrino's works is *organized* or merely *affected* by spatial criteria. In the analysis of the first of *Sei quartetti brevi* in Chapter 3, we saw an exemplary case of accumulation and multiplication principles at play in the unfolding of compositional events. It was possible then to affirm that in that work the material was indeed *organized* by spatial criteria. In the case of *Allegoria della notte* and other works in window form, on the other hand, the space-time metaphor affects the way that the material is conceived at a micro-formal level, and - as a result - the way the material is organized in time at a macro-formal level. As opposed to the first of *Sei quartetti brevi*, in *Allegoria della notte* the form is *affected* by spatial criteria, without the material being necessarily organized according to the aformentioned principles of organization.

As in most works by Sciarrino in window form, in *Allegoria della notte* the identification of one group of materials (A) as opposed to the other (B) is facilitated by contrasting sonorities - both in terms of fullness and timbral qualities - as well as by musical rules that are specific to each group of materials, as has been demonstrated earlier. However much diversity there might be between the two groups, it is still not so easy to establish which one has a background role and which one has a foreground role in this work. The question arises whether either of these two can be relegated to a background role compared to the other, or whether it would rather be more appropriate to say that both materials have their own

sense of motion and that therefore window form, by obliterating one material at a time, shows us the differences in the flow of each material.

The piece opens with a short excerpt from Mendelssohn's *Violin Concerto* (bars 4-5), initially only framed by silence; a few moments later, at bar 10, another sonority emerges, accompanied by the indication "Lentamente, da un altro tempo"[67]. Whether Mendelssohn's short fragments, usually never longer than a couple of bars, emerge from silence or they graft onto Sciarrino's materials, as we will see shortly (see example 16), they recur following the same order of appearance as in the original score. If, on the one hand, this initially helps to perceive their nature as essentially cyclical, a bit like harmonic clusters in *L'orologio di Bergson* (see example 16), on the other hand this also contributes to an impression of a certain linearity and directionality in the musical discourse over time.



Example 16

L'orologio di Bergson, bars 7-8

In pieces in window form Sciarrino often renders the perception of movement and the sense of direction through a musical expedient by which a musical object is shown progressively, at first broken into several different parts, until over a series of bars the whole musical object gets revealed in its entirety. When this process is in place, the first fragment we hear, or see on the score, is usually either the beginning or the end of a musical object, and it is self-evidently impossible to understand which one of the two it is on its first appearance.

[67] "Slowly, from another time"

Over the course of a few bars, this fragment is usually followed by repetitions, slightly expanded in length, which progressively reveal further portions of the initial musical object until the whole object gets finally shown in its entirety.

The perception of movement and the sense of direction is given by the trajectory of the musical object in question, that is to say by the fact that a given object is revealed by fragments that progress linearly, as we listen to the piece, or in a retrograde form. In this sense we can also speak of reading the material from left to right and vice versa. It is perhaps useful in this regard to specify that the same object, as well as different objects, can follow opposite / multiple trajectories within the same piece: both from right to left and from left to right.

As should be evident by now, this process too relies on the correlation between the space and time domains. Once again, time is conceptualized in terms of space and, more precisely, the appearance of a given object and its trajectory in space is rendered through the expedient of its fragmentation and progressive reconstruction over time. In works in which window form is particularly didactic, as is the case with *L'Orologio di Bergson*, rhythmically punctual sound objects (harmonic clusters in this specific case) play almost the role of a jamb for horizontal objects; as Marco Angius observes, clusters identify the windows within which horizontal sound objects move from left to right, or vice versa, almost as if entering and exiting the windows identified by them.[68] We see once more the conceptualization of nonphysical (time) in terms of physical (space) that conceptual metaphor theory suggests: the correlation between time and space is all the more evident here, where musical events taking place in a given time span are conceptualised as objects *contained* in a bounded space.

Allegoria della Notte is a particular case in that Mendelssohn's materials, as I have reiterated, are not purely objects. Nevertheless, we can speak of periodicity even with reference to Mendelssohn's materials as it is evident that they convey a sense of flow, that

---

[68] Angius, Marco : *Come avvicinare il silenzio: la musica di Salvatore Sciarrino*. Roma, Rai Trade, 2007, p.161

they do flow in the same direction as the temporal axis on which our listening experience takes place; and furthermore, for the most part, they appear following the same order of appearance as in the original score. Even taking into consideration alternative works in window form composed by Sciarrino, however, the role of *periodicity* remains the same with respect to matters of form, and that is to allow the musical material to express its own sense of linearity in time and to give the overall structure a sense of temporal direction despite the discontinuity that characterizes window form.

This case study is rather exceptional in its use of borrowed materials dating back to 1844, making the duality of time levels in the narrative of this work more evident. In *Allegoria della notte*, in fact, the flow of time is experienced not only in the unfolding of the materials on a formal level, albeit with their continuities and interruptions. A sense of temporal distance pervades this work also by virtue of the combination, within a single work, of materials with different temporal connotations.

Let us consider for a moment the previous metaphor of the window, together with the two musical indications we encounter on the score: "Lentamente, da un altro tempo" at bar 10 and "Sempre fissamente come guardando il vuoto"[69] at bar 16, which suggests the idea of a point of view (or a listening perspective) which is fixed with respect to a given space. We can imagine this window as being the same for the entire duration of the work, but overlooking different sound spaces by virtue of being observed from two distinct temporal dimensions. Sciarrino defines his materials in this work as "the other side of Planet Mendelssohn - the uninhabited one"[70] (see Appendix). Although in all probability not intended to reveal the compositional choices or mechanisms underlying this work, this statement puts Sciarrino's original materials into perspective, perhaps inviting us to consider the totality of the materials

---

[69] "Always fixedly, as if looking at the void"

[70] Sciarrino, Salvatore : *Carte da suono*, Palermo, Edizioni Novecento, 2001, p.126 (see Appendix 1)

making up *Allegoria della Notte* as having some degree of kinship with Mendelssohn's, including Sciarrino's original materials, which indeed appear less bright and clear in comparison to Mendelssohn's. According to this hypothesis, it might be legitimate to ask whether material B can, in a certain way, be seen as a transfiguration of material A, although it would not be at all easy to confirm the compositional processes that would have led to this result.

In Chapter 3 anamorphosis was introduced as a perspective technique used in the visual arts to recreate optical illusion phenomena which distort the image of an object either because of a particular viewer's angle from which the object is viewed or because the object is being reflected in a curved mirror. In the case of the first of *Sei quartet brevi* I looked at anamorphosis as a process generating variations within the micro material, distorting it geometrically, that is to say in the material's proportions that concern gestural components, as well as duration and pitch. In *Allegoria della notte*, unlike in the first of *Sei quartetti brevi*, perspective plays a role not only in the relationships within Sciarrino's material, but also in the relationship between Mendelssohn's and Sciarrino's materials and, more specifically, with regard to their sound nature. Baltrušaitis rightly observes how perspective in art was born with the intention of restoring the third dimension[71], that is, to create a sense of depth. On a sound level, depth perception is closely related to distance perception and spatial awareness. Consequently the anamorphic transformations that in the visual arts are translated with perspective deformations, mostly of shapes and proportions, on a sound level might translate instead into changes in duration and pitch, as well as timbre. The most basic example of this would be the thinning of sound (e.g. from sound to breath) or a dynamic change, both of which can be seen as the result of a move away from the sound source. Silence itself, from

---

[71] Baltrušaitis, Jurgis : *Anamorfosi, o magia artificiale degli effetti meravigliosi*, Milano, Adelphi Edizioni, 1978, p. 13

which sound objects emerge and into which they return, is not to be framed solely as absence of sound, but rather as a quality of being inaudible for reasons of distance from the sound source, that is to say as an effect of the geography of sound: a result of distance from the sound source, of the sound object moving away and existing beyond the threshold of the audible. Similarly, separation and contiguity between sound objects can be seen in the context of objects that are closer (therefore more clearly perceived as separate) or more distant (whose boundaries cannot be clearly perceived or are indistinguishable). From this perspective, variations in timbre, such as changes from ordinary sound to harmonic sound or breath tone, for instance, can also be contextualized as effects of the geography of sound. With regard to this aspect in Sciarrino's aesthetics, Mazzolini observes[72] that:

> What appears to us at one point in the form as the piercing screeching of a flute, may appear to us elsewhere - heard from another window, from another side of time - as a vast and deep tremolo of a thunder sheet, or else what is single will seem to multiply.[73]

In the light of this observation, we can look at a significant passage in which Mendelssohn's and Sciarrino's materials are in direct comparison, such as bars 6 to 10 (see example 17), corresponding to *Lentamente, da un altro tempo.* Mendelssohn's full-orchestra sound in *ff* at bar 8 reverberates in a much thinner sound: a roll in *pppp* produced by the percussionist on the suspended cymbal resting on a timpani, while moving the pedal up and down to produce a D2-Eb2 glissando, and a B6 on the violin (*ppp* dal niente) which takes up the highest note of the violin's previous solo passage in *f* after a pause of 5 crotchets.

---

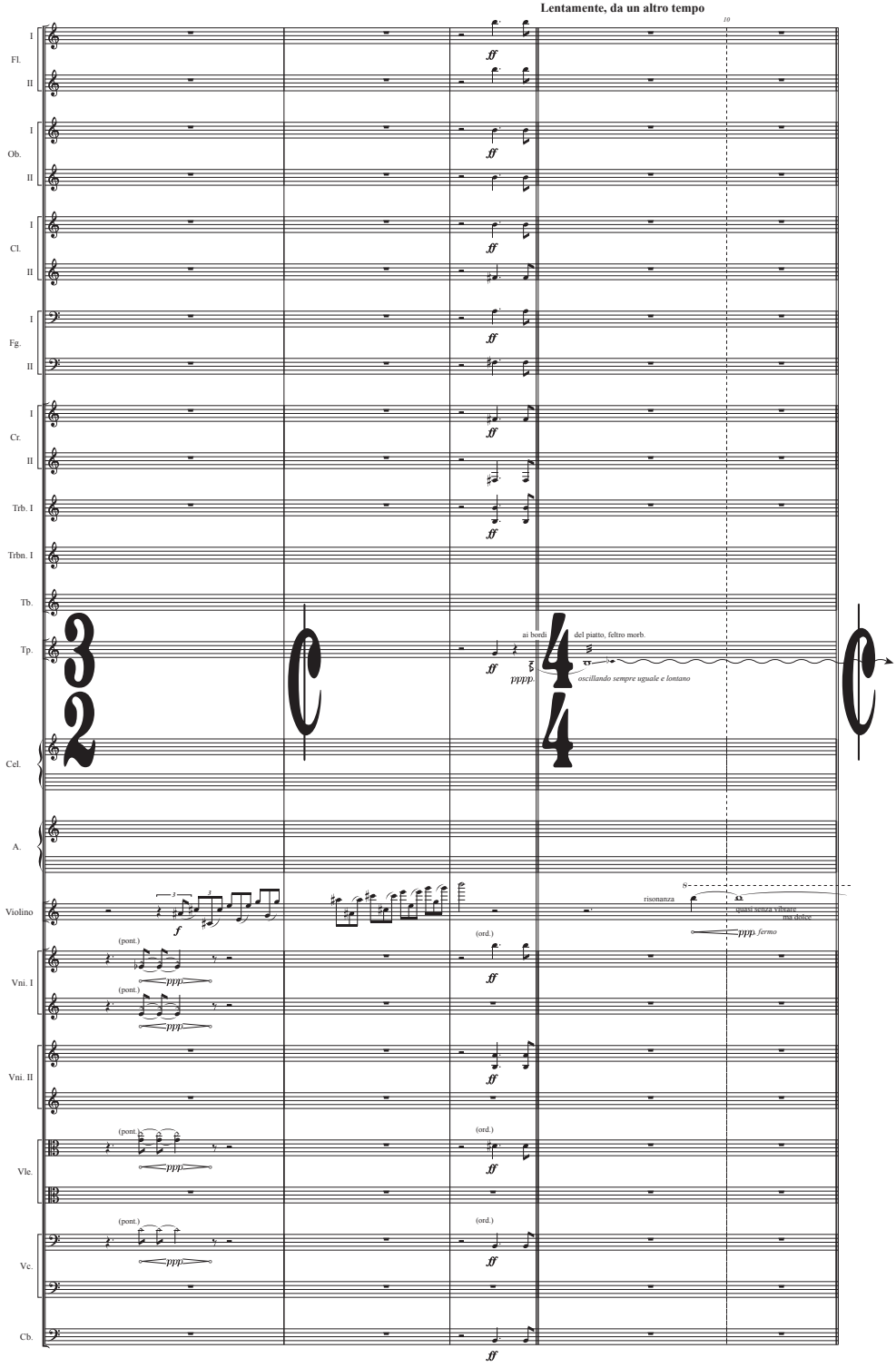
[72] Mazzolini, Marco : *Case del vento*. In Enzo Restagno (ed.), *Omaggio a Salvatore Sciarrino*, Torino, Torino Settembre Musica, XXV ed., 2002, p.31

[73] "Ciò che in un punto della forma ci appare come stridìo lacerante di un flauto, ci potrà apparire altrove – udito da un'altra finestra, da un altro lato del tempo – come un vasto e profondo tremolo di lastra d'acciaio, oppure ciò che è singolo parrà moltiplicarsi."

Sciarrino indicates “lontano”[74] for the timpani and “risonanza”[75] for the violin at bar 9, as if Mendelssohn’s music were the ancestral origin of Sciarrino’s sound, now mirrored and reverberating from a distance. Similar alternations between Mendelssohn’s and Sciarrino’s materials occur periodically throughout the piece, in a macro cycle of contrasting attacks and resonances which subtly suggest the idea of a past reverberating in the present. In my view, it is therefore appropriate to affirm that Mendelssohn’s and Sciarrino’s material are linked together and to frame the latter as a transfiguration of the former.

[74] far away

[75] resonance



Example 17

Allegoria della notte (1985), bars 6-10.

Compared to what we previously saw in the analysis of the first string quartet from *Sei quartetti brevi*, where the anamorphic process concerned mostly the sound objects' proportions, that is to say the geometrical characteristics of the material, here the transfiguration affects the overall sound identity of Sciarrino's material, from its contours to its sonority and texture. However, regardless of the ways by which one material is transfigured into another and the evidence of their sense of belonging, the alternation of the groups A and B throughout the piece is evident and their mutual interference is to all intents and purposes a formal modality in the overall structure of the work. What remains to be investigated is its raison d'être, that is to say what its function is.

The continuous intromission of one group into the other makes us perceive the temporal unfolding of both only through a series of instants interspersed with one another. As previously mentioned with respect to the role of periodicity, it is in this way that Mendelssohn's material expresses its own sense of trajectory in time, and by virtue of being based on a linear conception of time. Sciarrino's material, on the other hand, does not show a particular sense of direction over time, but rather a sense of organicity within it. As a result of this repeated interference over time, the two materials express a sense of spatiality in two contrasting ways: on the one hand a sense of linearity and direction over time (in the case of Mendelssohn), and on the other as a sense of spatial perspective at the sound level (in the case of Sciarrino). By showcasing periodic alternations of contrasting materials, the overall formal structure of this work reveals a non-linear relationship with time, as do most works in window form, in which the role of Sciarrino's materials seems to be that of breaking the supposed continuity in the unfolding of Mendelssohn's material. The role of intermittence is thus apparently that of juxtaposing the two kinds of material with the purpose of making their differences in temporal qualities perceivable.

In *Allegoria della notte*, this interference can also be intended in a different way. If we accept the thesis that materials A and B are somewhat linked together as a result of the latter being a transfiguration of the former, we can frame what appears to be interference rather as consequentiality. Let us go back for a moment to the idea of Mendelssohn's music being the ancestral origin of Sciarrino's materials and of the past reverberating in the present in a periodic cycle of attacks and resonances. In this context the duality of A and B could be seen as the condition of being two space-time dimensions of the same material: Mendelssohn's material followed by its transfigured reverberation (Sciarrino's). Rather than an interference between two distinct groups aimed at bringing out a comparison of their periodicities, the two apparently contrasting materials could then be framed as the expression of a single kind of material: Mendelssohn's music reflected from Sciarrino's surface and transfigured by reverberating in certain ways according to Sciarrino's surface morphology.

The process that transfigures Mendelssohn's materials into Sciarrino's is therefore the expression of a reverberation: a refraction of Mendelssohn's music from Sciarrino's imaginary surface. In this case too, the relationship between the two is affected by an idea of spatiality, since, in order to generate a resonance, any music or sound requires a space in which to resonate. Sciarrino then becomes the listening space that allows Mendelssohn's music to reverberate. Since this transfiguration is the expression of Mendelssohn's material reverberating from an imaginary surface, groups A and B can be seen as different space-time states of the same material which, through a multitude of echoes, give rise to a new sound world with its own internal rules and geography of sounds, in many ways rather far from its origin.

In summary, window form in this work can be understood in two different ways. In the one case, we can look at it as a window opening up onto a sound horizon where the past (symbolized by Mendelssohn's materials) and the present (symbolized by Sciarrino's

materials) coexist and are layered. By letting us hear sounds of the past and of the present, Sciarrino sets a comparison between temporalities, employing interference as a means to highlight contrast between materials and to generate discontinuity.

In the other case, by framing Sciarrino's materials as a reverberation of Mendelssohn's, we can look at the form of this piece as a listening space in which the past resounds together with its reverberation in the present. Mendelssohn's material reverberates from Sciarrino's imaginary surface, giving rise to various degrees of transfiguration of the original material. In this listening space A and B are different space-time expressions of the same family of materials appearing consequentially in their original and transfigured state. In the latter case, then, by juxtaposing different materials through which a comparison of temporalities emerges, window form facilitates an interference between different space-time states of the same material.

4.7 Conclusions

This analysis of *Allegoria della notte* (1985) for violin and orchestra was conducted with the aim of exploring the relationship between space and temporality in Sciarrino, providing a case study of window form, as well as of the basic mechanisms of its functioning and perceptual implications. *Allegoria della notte* showcases a combination of original and borrowed materials from Mendelssohn's Violin Concerto in E minor, Op. 64, where Sciarrino's original materials act as a structural element of contrast among the periodicity of Sciarrino's arrangement of Mendelssohn's fragments. Sciarrino's interpretation of Michelangelo's homonymous work pointed me towards the most relevant formal aspects that the two works interestingly share, namely indistinctness, interference and discontinuity, therefore I chose to apply these to my interpretation of Sciarrino's *Allegoria della notte.*

Concerning the relationship between *sound* and spatiality, indistinctness identifies the main parameter of variation of Sciarrino's micro-materials and contributes to evoking somewhat distant and wide musical spaces. As a result of variations of several parameters (e.g. duration, directional movement, pitch content and dynamics), which form background-foreground relationships among sound-objects, Sciarrino creates a subtle sense of sound perspective within his sound world.

Concerning the connection between time and space, I have illustrated the basic mechanisms of window form and examined how Sciarrino employs processes of interference and periodicity with particular attention to notions of space and auditory perception. By letting us hear sounds of the past and of the present, Sciarrino presents a comparison between temporalities, employing interference as a means to highlight contrast between materials and to generate discontinuity. While intermittence invites us to compare the two different groups of materials over time, periodicity expresses the sense of direction in time with regard to the same group of materials. Gestalt laws of perceptual organization (i.e. the laws of similarity, of good form, and good continuation) play an important role in how we perceive parts of objects and form whole objects, which helps to explain why window form, and by extension Sciarrino's view of temporality, centres around matters of perception.

In *Allegoria della notte* all elements reinforce one another in recreating a sense of spatiality: indistinctness in the micro-materials sets background-foreground relationships among sound objects within Sciarrino's original materials at the level of the micro-form, while at the same time window form creates background-foreground relationships between Sciarrino's and Mendelssohn's groups of materials in the macro-form by means of interference and periodicity.

The form of this work can be framed in different ways, depending on how we look at Sciarrino's materials: it can either be seen as a multi-dimensional space where both past and

present exist and are layered, or where the past resounds together with its reverberation in the present. In both cases, window form remains a direct expression of spatiality: in the former case by virtue of acting like a multi-layered surface aimed at conveying the stratification of time, or the coexistence of past and present, whereas in the latter by virtue of becoming the listening space where musical materials appear in their original and transfigured state, by reason of their reverberation.

CHAPTER 5

Final Conclusions

My research was conducted with the aim of showing how space and spatial properties could constitute a key to interpreting the music of Salvatore Sciarrino in relation to matters of sound and temporality. I investigated spatiality as a means to build structural relationships among musical elements, not so much in order to demonstrate how the composer has actually conceived the works analyzed here, but rather with the purpose of providing a key to their understanding.

I started by discussing how conceptual metaphor theory explains the conceptualization of time in relation to space and how theories of perception demonstrate similarities between the way we perceive auditory input and visual input, in order to provide a framework to understanding how the concept of space can be effectively translated to music. I followed up by highlighting the composer's attention to the principles of organization - mechanisms that relate aspects and properties of space (e.g. mass, growth, and other physical phenomena) with the formal organization of music and the fine arts - both in his writings and his music. Space is at the heart of Sciarrino's sound world by virtue of his materials being constructed to reproduce the principles of organization and how we perceive them; in addition, because Sciarrino's use of multiple temporalities deals with time being conceptualized in terms of space, form can be seen as a sound space within which we perceive spatial properties of the physical world (e.g. proximity, continuity, similarity, etc.).

In the analysis of two different works by Sciarrino (the first of *Sei quartetti brevi* and *Allegoria della notte*, for violin and orchestra) I then explored which specific aspects of the musical elements and formal structures appear to be linked to the concept of space and spatial

properties. The analyses hereby conducted were not aimed at highlighting a link between spatiality and the purely stylistic aspects of Sciarrino's musical language, since a research of this sort would certainly have required an examination of a much broader repertoire, but rather at focusing on Sciarrino's compositional strategies on a micro- and macro-formal level, and at how spatiality could be seen to influence how the composer conceives his own music, as well as how listeners perceive it.

In each of the analyses conducted, I identified specific compositional techniques through which the spatial properties were effectively translated into music. In both analyses, the compositional strategies adopted by Sciarrino were also put in relation to how they can be perceived during the listening process. In this regard, despite the diversity of musical materials used in the two work considered, I have demonstrated that both works successfully combine conceptual and perceptual aspects at the micro- and macro-formal level. In both cases Sciarrino's compositional strategy appears to suggest a deep relationship between the micro- and macro-formal choices, which makes the structure of the compositional work particularly suitable for understanding the compositional material over time.

In both analyses, in fact, form appeared to be a structure conceived in relation to perceptual phenomena, particularly in relation to the physical and visual perception of the spatial properties involved in shaping the variations that affected the micro-materials.

The two analyses, each with their own aspects, therefore point out the relevance of space as a relevant parameter in Sciarrino's compositional thought and the influence of spatiality on the structure of his works at all levels through the integration of perception and representation.

Bibliography

Angius, Marco: *Come avvicinare il silenzio: la musica di Salvatore Sciarrino*, Roma: Rai Trade, 2007.

Auerbach, Erich: *Scenes from the Drama of European Literature: Six Essays*, Minneapolis: University of Minnesota Press, 1984, p. 11-76

Balestra, Cecilia et al.: *Salvatore Sciarrino. L'eco delle voci*, Milano: Teatro alla Scala, 2017.

Baltrušaitis, Jurgis: *Anamorfosi, o magia artificiale degli effetti meravigliosi*, Milano: Adelphi Edizioni, 1978, p. 285

Baltrušaitis, Jurgis: *Lo specchio : rivelazioni, inganni e science-fiction*, Milano: Adelphi Edizioni, 1981, p. 327

Bartolini, Donatella: La genialità? Il segreto è nell'universo infantile: Intervista a Salvatore Sciarrino, *Nuova rivista musicale italiana*, RAI ERI, 1999, n° 2, p. 227-232.

Bee, Mark A., and Klump, Georg M.: Primitive Auditory Stream Segregation: A Neurophysiological Study in the Songbird Forebrain, *Journal of Neurophysiology*, 2004, 92, pp.1088–1104. DOI: 10.1152/jn.00884.2003

Bent, Ian, and Drabkin, William: *Analisi musicale*, Torino: EDT, 1998, p.342

Bergson, Henri: *Key Writings*, Keith Ansell Pearson and John Mullarkey (eds), New York | London: Continuum, 2002, p. 205-220

Bergson, Henri: *Time and Free Will: An Essay on the Immediate Data of Consciousness*, New York: Dover Publications, 2003, 252 p.

Berleant, Arnold: *Aesthetics and Environment: Variations on a Theme*, Aldershot: Ashgate Publishing, 2005.

Bregman, Albert S.: Auditory Scene Analysis: Hearing In Complex Environments. In Stephen McAdams and Emmanuel Bigand (ed.), *Thinking in Sound: The Cognitive Psychology of Human Audition*, Oxford: Oxford Science Pubblications, 1993, p.10-36

Bregman, Albert S.: *Auditory Scene Analysis: The Perceptual Organization of Sound*, Cambridge:

MIT Press, 1990.

Bunch, James Dennis Jr: *A Polyphony of the Mind: Intertextuality in the Music of Salvatore Sciarrino*, University of Illinois, doctoral thesis, 2016.

Buser, Pierre, and Imbert, Michel: *Audition*, Cambridge: MIT Press, 1992, p.42-51

Butterfield, Matthew: The Musical Object Revisited, *Music Analysis*, Oxford: Blackwell Publishing, 2002 (21/iii), p.327-380

Carpenter, Patricia: The Musical Object, *Current Musicology*, New York: Columbia University, 1967 (0/5), p.56-88

Carratelli, Carlo: *L'integrazione dell'estesico nel poietico nella poetica musicale post-strutturalista: il caso di Salvatore Sciarrino, una "composizione dell'ascolto"*, Università di Trento – Université Paris Sorbonne, doctoral thesis, 2006.

Cesari, Matteo: *Déchiffrer les horloges. L'interprétation du temps dans "L'orologio di Bergson" de Salvatore Sciarrino et "Carceri d'invenzione Iib" de Brian Ferneyhough"*, Université Paris Sorbonne – Conservatoire National Supérieur de Musique et Danse de Paris, doctoral thesis, 2015.

Chion, Michel: *Guide to Sound Objects*, from an unpublished translation by John Dack & Christine North, provided by the translator, 2002.

Chouvel, Jean-Marc: *Esquisses pour une pensée musicale. Les métamorphoses d'Orphée*, Paris: L'Harmattan, 1998.

Chouvel, Jean-Marc & Solomos, Makis: *L'espace: Musique / Philosophie*, Paris: L'Harmattan, 1998.

Chouvel, Jean-Marc: Apprendre à écouter. In Boudinet, Gilles & Fijalkow, Claire (ed.), *Mélanges pour Jean-Pierre Mialaret*, Paris: L'Harmattan, 2006, p.4-5. Available on: jeanmarc.chouvel.3.free.fr/textes/Apprendreaecouter0.1.pdf [Accessed on 9.9.18]

Clarke, Eric F.: *Ways of Listening: An Ecological Approach to the Perception of Musical Meaning*, New York: Oxford University Press, 2005.

Clarke, Eric F.: Mind the Gap: Formal Structures and Psychological Processes in Music, *Contemporary Music Review*, 1989, 3 (1), p.1–13. DOI: 10.1080/07494468900640021

Clarke, Eric F.: Music, Space and Subjectivity. In Georgina Born (ed.), *Music Sound and Space*, Cambridge, Cambridge University Press, 2013, p. 90-110

Cooper, David E.: The Japanese Aesthetics of the Indistinct. In Minh, Nguyen A. (ed.), *New Essays in Japanese Aesthetics*, Lexington Books, 2017.

De Benedictis, Angela I. & Dotto, Gabriele: *The Enchantment of Sound. Salvatore Sciarrino*, Edizioni Corraini, 2017.

De Rosa, Agostino and D'Acunto, Giuseppe: *La vertigine dello sguardo. Tre saggi sulla rappresentazione anamorfica*, Venezia, Cafoscarina, 2002.

Finch, Geoffrey: *Linguistic Terms and Concepts*, London: Palgrave MacMillan, 1999.

Gaver, William. W.: How do we hear in the world? Explorations in Ecological Acoustics. *Ecological Psychology*, 1993, 5 (4): p.285-313

Gaver, William. W.: What in the world do we hear? An ecological approach to auditory source perception. *Ecological Psychology*, 1993, 5 (1): 1-29

Giacco, Grazia: Interaction entre timbre et espace formel dans la musique contemporaine. In Nattiez, jean-Jacques & Traube, Caroline (ed.): *Le timbre musical : Composition, interprétation, perception et réception - Cahiers de la Société Québécoise de Recherche en Musique*, 2007, Vol.9, n° 1-2, pp. 151-169

Giacco, Grazia: *La notion de "figure" chez Salvatore Sciarrino*, Paris: L'Harmattan, 2001.

Giomi, Francesco & Ligabue, Marco: Modalities of signification in contemporary music, *Contemporary Music Review*, 1998, 17 (2): 47-58. DOI: 10.1080/07494469800640081

Giomi, Francesco & Ligabue, Marco: The "enchanted" sound objects : aesthesic-cognitive analysis and musical signification strategies. In Costin Miereanu & Xavier Hascher, *Les universaux en musique: actes du quatrième Congrès international sur la signification musicale*, Paris: Publications de la Sorbonne, 1994, p. 411-426

Giuliani, Roberto: *Salvatore Sciarrino: Catalogo delle opere, musiche e scritti, discografia, nascografia, videografia, bibliografia*, Ricordi: Milano, 1999.

Grimley, Daniel: Hearing Landscape Critically: Prospects and Reflections. In *Studien Zur Wertungsforschung*, 2019, Vol. 62, pp. 89-101.

Grisey, Gérard: *Ecrits ou l'invention de la musique spectrale*, edited by Guy Lelong and d'Anne Marie Réby. Paris: Editions MF, 2008.

Harris, Mitch; Smaill, Alan; Wiggins, Geraint: *Representing Music Symbolically*, Research Paper 562, Department of Artificial Intelligence, University of Edinburgh, 1991.

Hicks, Jonathan; Uy, Michael; Venter, Carina: Introduction: Music and Landscape, *The Journal of Musicology*, University of California Press, 2016, Vol. 33 n°1 (Winter 2016), pp.1-10. *JSTOR*, https://www.jstor.org/stable/10.2307/26414193.

Hodges, Nicolas: 'A volcano viewed from afar': the Music of Salvatore Sciarrino, *Tempo*, Cambridge University Press, 1995, Vol. 194, pp.22-24. *JSTOR*, https://www.jstor.org/stable/944607.

Huumo, Tuomas: The grammar of temporal motion: A Cognitive Grammar account of motion metaphors of time, *Cognitive Linguistics*, De Gruyter Mouton, 2017, Vol. 28/1, pp.1-43. DOI: 10.1515/cog-2016-0015

Husserl, Edmund: *Per la fenomenologia della coscienza interna del tempo*, Milano: Franco Angeli Editore, 2016.

Imberty, Michel: Continuità e discontinuità. In Jean-Jacques Nattiez (ed.), *Enciclopedia della musica Einaudi, vol. I. Il Novecento*, Torino: Einaudi, 2001, p. 526-547

Imberty, Michel: La musica e l'inconscio. In Jean-Jacques Nattiez (ed.), *Enciclopedia della musica Einaudi, vol. II. Il sapere musicale*, Torino: Einaudi, 2002, p. 335-360

Kandinsky, Wassily: *Point and Line to Plane*, New York: Dover Pubblications, 1979.

Kane, Brian: L'Objet Sonore Maintenant: Pierre Schaeffer, sound objects and the phenomenological reduction. *Organised Sound*, 1993, 12 (1): p.285-313

Kivy, Peter: *Introduction to a Philosophy of music*, Oxford: Clarendon Press, 2002.

Kivy, Peter: *Music, Language and Cognition*, Oxford: Clarendon Press, 2007.

Kovecses, Zoltan: *Metaphor: A Practical Introduction*. Oxford University Press, 2001.

Kuma, Kengo (ed.): *Kyokai: A Japanese Technique for Articulating Space*, Tokyo: Tankosha, 2010.

Lakoff, George & Johnson, Mark: *Metaphors We Live By*, Chicago: The University of Chicago Press, 2003.

Lakoff, George: Contemporary Theory of Metaphor. In Ortony, Andrew (ed.): *Metaphor and Thought*, Cambridge: Cambridge University Press, 1993, p.202-251

Ligabue, Marco: Sound and sign: some notes and reflections on the modalities of signification in music, *Contemporary Music Review*, 1998, 17 (2), 35-46. DOI: 10.1080/07494469800640071

Mazzolini, Marco: Case del vento. In Enzo Restagno (ed.): *Omaggio a Salvatore Sciarrino*, Torino: Torino Settembre Musica, XXV ed., 2002.

McConville, Brendan P.: Reconnoitering The Sonic Spectrum In "All'aure in una lontananza", *Tempo*, 2011, Vol. 65 (255), p.31-44. DOI: 10.1017/S0040298211000040

Meyer, Leonard B.: *Explaining Music: Essay and Exploration*. Los Angeles: University of California Press, 1973.

Michel, Roberta: *Producing incantations: Salvatore Sciarrino's Works for Flute*, The City University of New York, doctoral thesis, 2012.

Misuraca, Pietro: "Salvatore Sciarrino. The Sicilian Alchemist Composer". In *Interdisciplinary Studies in Musicology*, 12, Poznan, PTPN Poznań Society of Friends of Learning, 2012, p.73-89

Moliterno, Gino: *Encyclopedia of Contemporary Italian Culture*, Routledge, 2002, p.753

Mottershead, Tim: Salvatore Sciarrino The Killing Flower, Music Theatre Wales, Buxton Opera House, *Tempo*, 2014, Vol. 68 (267), pp.67-68 [Peer Reviewed Journal]

Murail, Tristan: The Revolution of Complex Sound, *Contemporary Music Review*, 2005, Vol. 24 (2/3), pp.121-135

Nattiez, Jean-Jacques: *Musicologia generale e semiologia*, Torino: EDT, 1987.

Pesson, Gérard: Héraclite, Démocrite et la Méduse, *Entretemps,* 1990, Vol. 9.

Prinz, Wolfgang & Bridgeman, Bruce: *Handbook of Perception and Action: Perception*, London: Academic Press, 1995, p.377-85

Pustijanak, Ingrid: *Le forme del tempo nella musica di Gérard Grisey*, Università degli Studi di Pavia, doctoral thesis, 2000.

Rajendran, V. G. , Harper, N.S., Willmore, B.D. et al.: Temporal predictability as a grouping cue in the perception of auditory streams. *The Journal of the Acoustical Society of America*, 2013, 134 (1)

Restagno, Enzo: *Omaggio a Salvatore Sciarrino*, Torino: Torino Settembre Musica, XXV ed., 2002.

Sciarrino, Salvatore: *Carte da suono*, Palermo: Edizioni Novecento, 2001.

Sciarrino, Salvatore: *L'immagine del suono: grafici 1966/1985*, Milano: Civica Scuola di Musica, 2007.

Sciarrino, Salvatore: *Le figure della musica da Beethoven a oggi*, Milano: Edizioni Ricordi, 1998.

Scruton, Roger: *The Aesthetics of Music*, Oxford University Press, 1997.

Schaeffer, Pierre: *In Search of a Concrete Music*, Milano: Edizioni Ricordi, 1998.

Sitsky, Larry: *Music of the Twentieth-Century Avant-Garde: A Biocritical Sourcebook,* London, Greenwood, 2002.

Smalley, Denis: Spectromorphology: explaining sound-shapes. *Organised Sound*, 1997, 2 (2): p. 107-126

Smalley, Denis: Spectromorphology and structuring processes. In Simon Emmerson (ed.), *The Language of Electroacoustic Music*, London: Macmillan, 1986, p.61-69

Smalley, Denis: The listening imagination: Listening in the electro-acoustic era. *Organised Sound*, 1996, 13 (2): p.77-107

Solomos, Makis: *Iannis Xenakis, Gérard Grisey. La Métaphore Lumineuse*, preface by François Paris, Paris: L'Harmattan, 2003.

Spitzer, Michael: *Metaphor and Musical Thought*, Chicago: The University of Chicago Press, 2004.

Tan, Anthony: *Timbre as Vertical Process: Attempting a Perceptually Informed Functionality of Timbre*, paper presented at the conference Electroacoustic Music Beyond Performance, Berlin, June 2014, available on: http://www.ems-network.org/IMG/pdf_EMS14_tan.pdf [accessed on 31.08.2018]

Terranova, Daniela: *Il mito nella drammaturgia sonora del teatro musicale contemporaneo: il caso di Salvatore Sciarrino, una "composizione dell'ascolto"*, Università degli Studi di Udine, doctoral thesis, 2015.

Thomas, Gavin: The Poetics of Extremity. Gavin Thomas Introduces the Remarkable Music of Salvatore Sciarrino, *The Musical Times*, Musical Times Publications, 1993, Vol. 134, n° 1802, pp. 193-196. *JSTOR*, https://www.jstor.org/stable/1002474

Vinay, Gianfranco: Vue sur l'atelier de Salvatore Sciarrino (à partir de "Quaderno di strada" et "Da gelo a gelo"), *Circuit: musiques contemporaines*, 2001, 18 (1), p.15-20.

Vinay, Gianfranco: *Quaderno di Strada de Salvatore Sciarrino*, Paris: Michel de Maule, 2007

Online Sources

Villatico, Dino: Comporre oggi perché e per chi?, *La Repubblica*, 6 October 1985. <https://ricerca.repubblica.it/repubblica/archivio/repubblica/1985/10/06/comporre-oggi-perche-per-chi.html> (Accessed: 9.11.2019)

Pangrazi, Tiziana: Musica, suono e allegoria. L'"Allegoria della notte" (1985) di Salvatore Sciarrino, *Aisthema, International Journal*, 2020, 1 (7), p.177-197.
<http://www.aisthema.eu/ojs/index.php/Aisthema/article/view/101/107>
(Accessed: 12.04.2021)

Videos / Interviews:

Interview to Salvatore Sciarrino, CMAC Italy, *Clocks and Clouds*, episode 154/2021 :
<https://www.youtube.com/watch?v=9qUZrbmzF8k>
(Accessed: 15.09.2021)

Alessandro Cassin: Salvatore Sciarrino with Alessandro Cassin, *The Brooklyn Rail*, October 2020.
<https://brooklynrail.org/2010/10/music/salvatore-sciarrino-with-alessandro-cassin>
(Accessed: 1.08.2021)

Music Scores

Sciarrino, Salvatore: *Allegoria della notte*, Milan: Universal Music Publishing Ricordi, 1985. Music score.

Sciarrino, Salvatore: *Cantiere del poema*, Rome: Rai Trade, 2012. Music score.

Sciarrino, Salvatore: *Il suono e il tacere*, Rome: Rai Trade, 2004. Music score.

Sciarrino, Salvatore: *Sei quartetti brevi*, Milan: Universal Music Publishing Ricordi, 1997. Music score.

Discography

Sciarrino, Salvatore: Allegoria della notte, *Orchestral Works*, Orchestra Sinfonica Nazionale della RAI, Tito Ceccherini. Kairos, 2008. CD.

Sciarrino, Salvatore: *Cantiere del poema*, Anna Radziejewska (soprano), Ensemble Algoritmo, Marco Angius. Stradivarius, 2013. CD.

Sciarrino, Salvatore: Come vengono prodotti gli incantesimi, *Works for flute*, Matteo Cesari. Kairos, 2021. CD.

Sciarrino, Salvatore: Il suono e il tacere, *Orchestral Works*, Orchestra Sinfonica Nazionale della RAI, Tito Ceccherini. Kairos, 2008. CD.

Sciarrino, Salvatore: L'orologio di Bergson, *Works for flute*, Matteo Cesari. Kairos, 2021. CD.

Sciarrino, Salvatore: Sei quartetti brevi, *Quartetto No. 7 & No. 8 & Sei quartetti brevi*, Quartetto Prometeo. Kairos, 2012. CD.

APPENDIX 1

Allegoria della notte: Composer's Notes

The conceptual core dates back to 1976, in contrast to the *Six Caprices for violin*. Since then, the solo part was outlined without the harmonic sounds that characterize my string writing, and it was almost an affectionate bet between me and Accardo.

Imagine listening to Mendelssohn's Violin Concerto. Among flashes of consciousness (or intermittences of memory) another music emanates, literally generated by the echo of a lyrical momentum. Prolonging indefinitely, this echo makes perceptible another space, parallel: the other side of Planet Mendelssohn - the uninhabited one. And when our journey ends, Mendelssohn's Concerto - we find out - was not yet finished. And in our mind the two sound images, so close, yet so incommunicable, seem to struggle desperately, as opposing principles on a black sky. Each event leaves a mental aftermath that creates the sense of flowing. Within us, a life of reflections, fleeting yet persistent, in parallel to the happening of reality, and in continuous intermittence with it.

My compositions reconsider under theoretical and psychological perspectives the problem of form, of repetition, of recognition (recognizability in variation determines the intelligibility of a language). If form is understood as a pure path of the memory, formal processes become a representation of the processes of memory themselves. The creation of mental echoes, these are what my music pages collect. As the perceptual investigation thins out, the sound geometry transforms into substance and changes meaning. Such an intense dramatization pervades it to find the most varied results in the daily total. To the point of concealing itself even under the objective appearance of an assembly of tapes. When graduality becomes evident, processes are interrupted; to immediately show up at a later stage, without the banality of accumulation, without fading. The natural course of continuity [is] broken, so that developments do not just happen, but are immersed in time.

That's why the bet with Accardo was accepted with the certainty of winning. It is not the sound, although so specific, but rather the conception and organization, that suspend this music in its unmistakable dimension.

Allegoria della notte is dedicated to Resy and Salvatore Accardo.

P.S. To anyone who considers what the Violin Concerto represents in thought, it will

be evident why Mendelssohn. And not Brahms, whose figure is already in the act of citing the past. Not even the uniqueness of the Beethovenian prototype. Mendelssohn's is the right support: mature but not overly aged to still bear the excessive sentimental load with which generations of violinists have burdened him. The quotes - for those who are curious - are partially made up. The fragments, in order for them to appear as such, had to be built on purpose, as well as the sequence be altered.

(1985)[76]

---

[76] ***Allegoria della Notte*: note dell'autore**

Il nucleo concettuale risale al 1976, in contrasto ai *Sei capricci per violino*. Fin da allora, la parte solistica si delineava senza i suoni armonici che caratterizzano la mia scrittura per archi, ed era quasi un'affettuosa scommessa fra me e Accardo.

Immaginate di ascoltare il Concerto per violino di Mendelssohn. Fra gli sprazzi della coscienza (o le intermittenze della memoria) emana un'altra musica, letteralmente generata dall'eco di uno slancio lirico. Prolungandosi indefinitamente, questa eco rende percepibile un altro spazio, parallelo: l'altra faccia del pianeta Mendelssohn - quella disabitata.

E quando il nostro viaggio s'interrompe, il Concerto di Mendelssohn - scopriremo - non era ancora finito. E nella mente le due immagini sonore, così vicine, eppure così incomunicabili, sembrano lottare disperatamente, come opposti princìpi su di un cielo nero.

Ogni evento lascia uno strascico mentale che crea il senso del fluire. Una vita di riflessi, labili eppure persistenti, dentro noi parallela all'accadere reale, e con esso in continua intermittenza.

Le mie composizioni riconsiderano sotto prospettive teoretiche e psicologiche il problema della forma, della ripetizione, del riconoscere (riconoscibilità nella variazione determina infatti l'intelligibilità di un linguaggio). Se la forma è intesa come puro percorso della memoria, i processi formali divengono rappresentazione dei processi stessi della memoria. Il formarsi degli echi mentali, questi raccolgono le mie pagine di musica.

Man mano che l'indagine percettiva si assottiglia, la geometria sonora si trasforma nella sostanza e muta significato. Una drammatizzazione così intensa la pervade da trovare i più vari riscontri nel totale quotidiano. Al punto da dissimularsi persino sotto l'apparenza oggettiva di un montaggio di nastri.

Quando ne sia evidente la gradualità, i processi vengono troncati; per subito mostrarsi a uno stadio successivo, senza la banalità dell'accumulazione, senza dissolvenze. Infranto il naturale decorso della continuità, affinché gli sviluppi non accadano soltanto, ma siano immessi nel tempo.

Ecco perché la scommessa con Accardo fu accettata nella certezza di vincere. Non è il suono, pur se così caratteristico, bensì la concezione e l'organizzazione a sospendere tale musica nella sua inconfondibile dimensione.

Allegoria della notte è dedicato a Resy e Salvatore Accardo.

P.S. A chi considerasse cosa rappresenti nel pensiero il Concerto per violino, sarà evidente perché Mendelssohn. E non Brahms, la cui figura è già in atto di citare il passato. Neppure l'unicità del prototipo beethoveniano.

Quello di Mendelssohn è il giusto supporto: maturo ma non del tutto sfatto, da reggere ancora l'eccessivo arico sentimentale di cui generazioni di violinisti lo hanno gravato.

Le citazioni - per chi fosse curioso - sono parzialmente artefatte. I frammenti, perché tali apparissero, bisognava fossero costruiti apposta, e la successione alterata.

(1985)

https://www.salvatoresciarrino.eu/data/composition/eng/97.html