The Rhythmic Idea
and
The Musical Representation of Time

Indioney Carneiro Rodrigues

The Rhythmic Idea and The Musical Representation of Time

Goldsmiths College
University of London

PhD

DECLARATION BY CANDIDATE

I HEREBY DECLARE
THIS THESIS IS ENTIRELY MY OWN WORK AND EFFORT
AND HAS NOT BEEN SUBMITTED ANYWHERE FOR ANY AWARD.
WHERE OTHER SOURCES OF INFORMATION HAVE BEEN USED,
THEY HAVE BEEN ACKNOWLEDGED.

Indioney Carneiro Rodrigues, 25 July 2019

ACKNOWLEDGMENT

I acknowledge CAPES, The Brazilian Federal Agency for Support and Evaluation of Graduate Education, for its immeasurable encouragement and sponsorship; Federal University of Paraná and Goldsmiths College, University of London, their respective Music Departments and graduate programmes in music, for their academic support, motivation and inspiring intellectual environment; Dr Alvaro Carlini and Dr Beatriz Ilari, for their initial support, Dr Craig Ayrey, for his insightful orientation, Dr Tom Perchard and Dr Tim Rutherford-Johnson, and also Dr Edward Campbell, for their support and generous guidance, and especially Dr Mauricio Dottori, my Brazilian tutor and friend, who has been inspiring me *in difference* during this reflexive journey and the time spent abroad.

TO

Fernanda

On time

The sound of a bell is not the bell.[1]

J. J. Gibson

On bells

According to Viktor von Weizsäcker, a German medical specialist and biologist, things are not in time, but time is in things.[2]

K. Stockhausen

---

[1] James J. Gibson, *The Senses Considered as Perceptual Systems* (Boston: Houghton Mifflin, 1966), 187.

[2] Karlheinz Stockhausen, *Stockhausen on Music: lectures and interviews*, ed. Robert Maconie (London: Marion Boyars, 2010), 37.

ABSTRACT

Taking its starting point from the often repeated idea that music and time are related, and that understanding time, in its multiple possibilities, depends on perceiving it rhythmically, this thesis proposes a new compositional concept, the *rhythmic idea*, which elaborates musically the ways time becomes rhythm. This concept is developed mainly from H. Bergson's and G. Deleuze's philosophies of time, both of post-Kantian transcendental empiricist extraction, and elaborates the conception of musical idea informed by A. Schoenberg's and K. Stockhausen's theories on the matter. In it, the qualifier *rhythmic* does not necessarily denote pulse regularity nor a recursive ordering of different impulses, but their heterogeneity and complexity. All the same, *idea* does not denote identity but dynamism and multiplicity. It is thus understood that the notion of rhythmic idea indicates duration, in the perspective of Bergson's *durée réelle*, a dynamic temporal flux that is manifold in the experience of a musical piece, so that the piece's temporal evolution becomes in itself a *mode of being*. Additionally, now following Deleuze (and also Bachelard on this specific matter) it is understood that the particular, unique cognitive experience of a musical piece's temporal complexity and heterogeneity also becomes a *mode of knowing*. Thus musical composition is a twofold process: it is a privileged means for the expression and interpretation of fluxes of temporal complexity forms, which always operate on the temporal orientation of both being and knowing simultaneously. This orientation is rhythmic in both senses, as dynamism, and as complexity, that is, as continuity and articulation. From this, emerges the notion that composing — which in the perspective here presented includes both the expression and the interpretation of the very compositional process by means of a musical piece — is accomplished according to determinate rhythmic ideas that *rhythmicalize* functionally a given musical idea, as being and as knowing. On this basis, it is argued that the functional rhythmicalization of the musical idea comprises at least three qualitatively distinct but mutually influencing compositional domains, of which this dissertation discusses chiefly the first: (1) the domain of *musical times*, composed by the rhythmical interpenetration of absolute fundamental temporal orientations, bound to the past or to the future; allowing for a future development of further two domains:(2) that of *musical temporalities*, composed by the rhythmical interpenetration of fluid, regular and irregular psychological impulses, informed by distinct types of memory and imagination; and (3) that of *musical temporalizations*, composed by the rhythmical interpenetration of *systemic* (time-qualifying) and *metrical* (time-ordering) operations. Rhythmicalization may imply either the creation of original rhythmic ideas or the *arrangement* of conventional ones. In this, it reflects the degree of social assimilation and, therefore, the degree of historical and cultural installation of rhythmic ideas. Furthermore, as the temporal complexity of a given musical idea cannot be abstracted from the experience of its own flux and because this twofold experience is at last necessarily related to the quality or 'reach' of one's experience of the dynamism and complexity of the world — both as perception and intellect —, it is suggested that the rhythmic constitution of the musical idea stands not only as a fundamental and necessary representational factor of music as Art but, more to the point, it stands essentially as a means of representing the foundations of our experience of time itself.

Summary

Introduction 12

I – Problem and Delimitation 14

II – The Grounds 24

III – Main Concepts 36

IV – Chapters 45

Chapter One – Review of literature 47

I – Time 52

Kant: the nexus of sensibility and understanding 52

Bergson: the mobility of things and of things in us 59

Deleuze: the broken connection of the faculties and the mobility of the Idea 62

Bachelard: the newness of the instant 65

II – Musical Time 68

Musical time as space 69

Musical time as duration 76

Musical time's rhythmicality 80

III – Musical Idea 88

Schoenberg: the repetition in the difference 88

Stockhausen: the difference in the repetition 94

IV – Musical Representation 102

Individual and social musical times 102

Chapter Two – Rhythmicalization 110

I – Temporal Domain 112

The rhythmicality of the idea 112

II – Temporal Complexity 120

Lyricalness and dramaticism 123

Repetition and difference 125

III – Rhythmicalization Hypotheses 131

CHAPTER THREE – MUSICAL TIMES, AND THE RHYTHMIC CONCEPTION OF THE MUSICAL IDEA 142

I – Musical Times 146

Musical inspiration 146

Fundamental rhythmical forces 152

On musical dramaticism 159

On musical lyricalness 161

On repetition and difference 163

II – The First Rhythmicalization Process 165

The rhythmic idea of Closed Refrain, [CRe] 171

The rhythmic idea of Closed Route, [CRo] 173

The rhythmic idea of Open Refrain, [ORe] 176

The rhythmic idea of Open Route, [ORo] 178

III – Other times 182

Musical Temporalities 182

Musical Temporalizations 187

CONCLUSION 193

BIBLIOGRAPHY 207

GLOSSARY 219

APPENDIX 1 - SECOND LEVEL RHYTHMIC IDEAS, SHORT EXAMLES AND COMMENTARIES 226

APPENDIX 2 - *FLEGETONTE*, FOR FLUTE, CLARINET, VIOLA AND VIBRAPHONE COMPOSITIONAL ANNOTATIONS ON RHYTHMIC IDEAS, ANALYTICAL AND ENSEMBLE SCORES 240

APPENDIX 3 - DIAGRAM OF MUSICAL REPRESENTATION OF TIME 273

Figures

Figure 1.1	Stockhausen's *Kontakte* (1958), score's detail.	99
Figure 2.1	Bergson's view of the creative movement of sensibility (original illustration from Bergson's Matter and Memory).	114
Figure 3.1	Zone of interference between two wave systems.	145
Figure 3.2	Temporal linkage of sensibility and understanding.	146
Figure 3.3	The process of musical composition and its representation are integrated by mean of the musical piece.	147
Figure 3.4	Perception of a regular sequence of pulses.	149
Figure 3.5	Representation of the temporal images of movement and presence.	153
Figure 3.6	Transient requalification of musical times.	154
Figure 3.7	Representation of the temporal images of permanence and change.	154
Figure 3.8	Bach's *Toccata and Fugue in F Major BWV 540* (1731), excerpt.	155
Figure 3.9	Beethoven's *7 Variations on 'Bei Männern, welche Liebe fühlen'* (1801), excerpt.	155
Figure 3.10	Varèse's *Density 21,5* (1946), (Fig. 3.10), excerpt.	156
Figure 3.11	Ferneyhough's *Unity Capsule* (1975), excerpt	156
Figure 3.12	The pulsation of musical experience.	158
Figure 3.13	Chopin's *Mazurka, Opus 24, no. 1* (1836), excerpt.	159
Figure 3.14	Pitch rows and their derivation in Stockhausen's *Kreuzspiel* (1951).	160
Figure 3.15	Murail's *Désintégrations* (1983), excerpt.	161
Figure 3.16	Two musical pasts and two musical futures.	163
Figure 3.17	Temporal grounds of music composition.	165
Figure 3.18	Dramaticism and lyricalness and their temporal variation.	165
Figure 3.19	Contracted and expanded musical past(s) and future(s).	166
Figure 3.20	Extract from Nattiez's syntagmatic analysis of Debussy's *Syrinx* (1913).	168
Figure 3.21	Stockhausen's *Klavierstucke XI* (1956), excerpt.	170
Figure 3.22	General temporal design of primary rhythmic ideas.	171
Figure 3.23	Image of the rhythmic idea of Closed Refrain, [CRe].	172
Figure 3.24	Compositional example, based on the rhythmic idea of closed refrain.	172
Figure 3.25	The rhythmic idea of closed refrain, micro designs.	172
Figure 3.26	The rhythmic idea of closed refrain, macro designs.	173
Figure 3.27	Image of the rhythmic idea of Closed Route, [CRo].	174
Figure 3.28	Compositional example based on the rhythmic idea of closed route.	174
Figure 3.29	Compositional example based on the rhythmic idea of closed route.	175
Figure 3.30	Image of the rhythmic idea of Open Refrain, [ORe].	176
Figure 3.31	Boulez's *Structures 1a* (1951), excerpt.	177

Figure 3.32 Brown's *4 Systems* (1954). 177
Figure 3.33 Compositional example based on the rhythmic idea of open refrain. 178
Figure 3.34 Image of the rhythmic idea of Open Route, [ORo]. 179
Figure 3.35 Messiaen's *L'Ange aux Parfums* (1939), excerpt. 180
Figure 3.36 Compositional example based on the rhythmic idea of open route. 181
Figure 3.37 Motor impulses. 185
Figure 3.38 Rhythmical functionality of memory and imagination. 186
Figure a1.1 Compositional example oriented by the rhythmic idea of Strong Symmetrization, [SS]. 230
Figure a1.2 Compositional example oriented by the rhythmic idea of Weak Symmetrization, [WS]. 232
Figure a1.3 Compositional example oriented by the rhythmic idea of Strong Asymmetrization, [SA]. 233
Figure a1.4 Compositional example oriented by the rhythmic idea of Weak Asymmetrization, [WA]. 234
Figure a1.5 Compositional example oriented by the rhythmic idea of Strong Balance, [SB]. 235

Introduction

On the music inside us

You are always referring to my music, my music. What does it mean my music? It's just something that has come into my mind and I am working all the time and that's it. So: I am a myth, I am a name, and if I go away then they just attach on something that vibrates within yourself, where you are confronted with this so-called music. It has a name so in order to identify it. That's all. Like 'Beethoven:' — who was he? He was a very miserable person, I must say, as a human being. And he is a myth for something that we are, that is within ourselves. We are echoing. Beethoven is part of us or he doesn't exist. And in that sense I think it [music] *is only a means, it's like a spiritual food, and it will be used by certain people who discover a certain identity of what they are and what there is vibrating. They choose more of it, they like it — liking means, as I always say, remembering: when I like something, then I discover something that I have been before, that is profoundly already within me. It resonates, like a piano that you hit.*[1]

K. Stockhausen

On the musical idea, answering to an analytic work

You have rightly worked out the series in my string quartet. […] *You must have gone to a great deal of trouble, and I don't think I'd have had the patience to do it. But you think one's any better off for knowing it? … This isn't where the aesthetic qualities reveal themselves, or, if they do, only incidentally. I can't utter too many warnings against over-ratting these analyses, since after all they only lead to what I have always been dead against: seeing how it is done; whereas I have always helped people to see: what it is! I have repeatedly tried to make* [Adorno] *understand this, and also Berg and Webern. But they won't believe me. I can't say it often enough: my works are twelve-note* compositions*, not* twelve-note *compositions. In this respect people go on confusing me with Hauer, to whom composition is only of secondary importance.*[2]

A. Schoenberg

---

[1] Karlheinz Stockhausen, "Questions and Answers on 'Four Criteria of Electronic Music'," filmed by Allied Artists, 1971, incorporated in the documentary "Tuning In," directed by Barrie Gavin for the BBC-TV "Omnibus" series, 1980, *apud* Robin Maconie, *Other Planets: the music of Karlheinz Stockhausen* (Oxford: Scarecrow Press, 2005), 2.

[2] "To Rudolf Kolisch, Berlin, 27 July 1932," in Arnold Schoenberg, *Letters*, ed. Erwin Stein, trans. Eithne Wilkins and Ernst Kaiser (London: Faber and Faber, 1964), 164-165.

I – PROBLEM AND DELIMITATION

What I present here is a view of creativity in music as a temporal process. In this view, the manifold aspects of musical creativity are seen as constituent powers, mutually influential, of the compositional process. This is a lively and dynamic process which is *composed* by innumerous creative impulses, in a complex, continually redone, and multiple temporal dimension. A transcendent dimension, always deeper and richer than it is possible to suppose from the analysis of material elements and proportions at the surface of a piece of music.

This approach sprung from the perception that an important part of the time that is devoted to learning and practising musical composition revolves around two main issues: (i) that of the origin, of the initial motivation of the creative flux (its thematics, its affects, etc.), including choices of technical matters, of modes of organisation and presentation of the materials, and of the means for musical performance; and (ii) that of the reception of this flux, now seen as an *influx*, as strength and meaning posited on the world. Many times these issues are considered from the point of view of music education, music philosophy, cognitive studies, etc. Here, however, the quest is for a properly compositional manner, a dedicated manner of shedding light upon these problems taking into account only what is specific to the domain of music creativity.

Doubtlessly, a usual manner is to consider these issues from the perspective of musical elements as they are objectively presented in a piece of music, analysing, measuring, classifying, probing their proportions, evaluating them experimentally. A distinct option is to consider them from the standpoint of the creative act in its relation to the musical piece, an option permeated by multiplicities and ever-changing transformations, by the complexity of becoming. This second option is what gives this thesis its orientation.

It is possible to infer the creative routines that gave origin to a musical piece, by analysing its elements and proportions. It is also feasible to borrow these routines and project them, renewed or not, onto a new piece. By doing so, one promotes a kind of wandering compositional effect, which allows, in a careful listening, recognition of the line of invariance (of a certain formal design, of a melodic gesture, of a rhythmic impulse, of a mixture of timbres) that links the new piece to the one composed before. Recall, for instance, the compositional dialogues between the ostinatos in Bach's *Prelude* nº 2 in c minor, and Birtwistle's *Harrison's Clocks*; or between the arpeggios in Paganini's and Sciarrino's *Capricci nº. 1*. From this stems an initial question: which is the way that leads to the creation of a fully new form of musical presentation? Also, isn't it fair to ask what leads us to our choices? This is a second question: what are the grounds for compositional choices, in particular for making decisions towards more or less original choices?

The line of approach to these questions taken here departs from issues initially posited by Arnold Schoenberg in his own research about the nature of the musical idea and the problem of its presentation.[3] I expect to extend and expand upon those issues by taking into account aspects of Schoenberg's own theories on musical composition and, quite tangentially, also of Karlheinz Stockhausen's, and Olivier Messiaen's; and by using theoretical works by Henri Bergson, Gilles Deleuze, and also by Gaston Bachelard, on the epistemological problem of time and representation (however framed by Immanuel Kant's critical approach).

The decision to take Schoenberg's intuitions as my point of departure was driven by the compositional slant of my initial concerns. All the same, the choice of Schoenberg was not gratuitous, as his own ideas are firmly related to Kant's. As will be demonstrated, the expansion I aim to propose of Schoenberg's more general notion of musical idea will be supported by Bergson's developments of Kant, and also, via Bergson's philosophy, by Deleuze and Bachelard.

Schoenberg's musical idea shall not to be confused with the concept of theme and its development, as apparent for example in the commentary by Dahlhaus, who says that "the difficulties faced by composers after Beethoven were due in no small part to the brevity of their musical ideas,"[4] a concept of idea that originates in the "Baroque and Classical tradition of understanding and describing a musical work in rhetorical terms."[5] For Schoenberg, the musical idea transcends the technique of its presentation in a piece of music. It is the musical thought itself, that, as thought, does not take place *in* a musical piece outside its experience, but *among* the individuals that are related *by means of* the piece: the idea is not a theme in itself, nor its variations and developments, but the confluence of compositional factors and conditions that such technical devices project on the musical piece. In other words, the musical idea involves both the expressive and the interpretative forces that are established throughout its presentation.

Schoenberg's approach is grounded upon Kant's proposition of *aesthetic idea*. Kant defines the aesthetic idea as

> that representation of the imagination which induces much thought, yet without the possibility of any definite thought whatever, i.e., concept, being adequate to it, and which language, consequently, can never get quite on level terms with or render completely intelligible. It is easily seen, that an aesthetic idea is the counterpart (pendant) of a rational idea, which,

---

[3] Music, says Schoenberg "is not a kind of entertainment but a musical poet's or thinker's presentation of musical ideas, ideas that are a part of what man can apperceive, reason, and express." Arnold Schoenberg, *The Musical Idea and The Logic, Technique and Art of its Presentation*, ed. Patricia Carpenter & Severine Neff (Bloomington: Indiana University Press, 2006), 1.

[4] Carl Dahlhaus, *Between Romanticism and Modernism: four studies in the music of the later nineteenth century*, trans. Mary Whitall. (Berkeley: University of California Press, 1980), 40.

[5] Jack Boss, *Schoenberg's Twelve-tone Music: symmetry and the musical idea* (Cambridge: Cambridge University Press, 2014), 10.

> conversely, is a concept, to which no intuition (representation of the imagination) can be adequate.[6]

This proposition had a profound influence on Schoenberg and may be understood

> as anticipating many of the features of Schoenberg's musical idea […] particularly the sense that it is an ineffable 'something' that generates the actual piece; yet despite its ineffability it forms the basis for the listener's comprehension of the piece (musical form being the agent of that comprehensibility) and enables the listener to appreciate it as 'beautiful.'[7]

In fact, Schoenberg dedicates practically all his life as a composer and teacher of composition to the problem of the ineffability of the musical idea, particularly in what concerns its presentation. For him, it was indispensable to objectively — musically — define and demonstrate the concept. Josef Rufer refers, for example, to a short comment by Schoenberg, dated 7 April 1929: "The question as to what a musical idea is has never been answered up till now … I thought that I would be able to state this clearly today, I had it so clearly in mind. But I must still wait. Perhaps, though, I shall come to it yet".[8]

Later on, a 72 year-old Schoenberg gave, in *New Music, Outmoded Music, Style and Idea*, a representational definition of musical idea:

> in its most common meaning, the term idea is used as a synonym for theme, melody, phrase, or motive. I myself consider the totality of a piece as the idea: the idea which its creator wanted to present. But, *because of the lack of better terms, I am forced to define the term idea in the following manner* [my stress]: Every tone which is added to a beginning tone makes the meaning of that tone doubtful. If, for instance, G follows after C, the ear may not be sure whether this expresses C major or G major, or even F major or E minor; and the addition of other tones may or may not clarify this problem. In this manner, there is produced a state of unrest, of imbalance which grows throughout most of the piece, and is enforced further by similar functions of the rhythm. The method by which balance is restored seems to me the real idea of the composition.[9]

This image, consisting of three dialectic phases: uncertainty or ambiguity — imbalance by increasing of uncertainty — resolution of imbalance, gave the impulse for further studies on the matter.[10] However, as I see it, the tonal example of Schoenberg's argument, given "because of the lack of better terms," should not be taken to the letter. Instead, it implies a first expansion of the concept of musical idea: what is implicit in this passage is

---

[6] Immanuel Kant, *Critique of Judgement*, trans. James Creed Meredith (Oxford: Oxford University Press, 1952), 314.

[7] Boss, *Schoenberg's Twelve-tone Music…*, 14. See also Patricia Carpenter, "Musical Form and Musical Idea: reflections on a theme of Schoenberg, Hanslick and Kant," in *Music and Civilization: Essays in Honor of Paul Henry Lang*, ed. Edmond Strainchamps and Maria Rika Maniates with Christopher Hatch (New York: Norton, 1984), 407.

[8] Josef Rufer, *The Works of Arnold Schoenberg: a catalogue of his compositions, writings and paintings*, trans. Dika Newlin (London: Faber, 1962), 137.

[9] Arnold Schoenberg, "New Music, Outmoded Music, Style and Idea (1946)," in *Style and Idea*, ed. Leonard Stein (London: Faber and Faber, 1984), 122-123.

[10] In his study on Schoenberg's concept of musical idea, Jack Boss employs systematically this concept of musical idea, as he declares: "I will interpret musical idea as an analytic framework: a process span-

the fact that the balance-imbalance of a musical form, tonal or otherwise, is potentially established or broken (or even fluctuates), not just because of tonal relations between pitches, but also because of several other factors, including rhythmics. It is certainly a point intuitively shared by composers in general and mindfully presented by others, like Messiaen in his *Traité de Rythme, de Couleur, et d'Ornithologie*, who says that

> Gaston Bachelard concludes by saying, 'The sonorous duration is dialectic in every sense, in terms of the melody, in terms of the harmony, in its intensity, and in its timbres.' This statement is full of consequences. Let us give free reign to our imagination: we are going to find — in replacing 'rhythmic order' with 'rhythmic language,' a richer term — not harmony, as Bachelard has just suggested to us, but a number of diverse rhythmic languages that can coexist in the same music. They are: (1) the rhythmic language of durations (long and short durations – quantitative order); (2) the rhythmic language of intensities (loud and soft sounds – crescendo and decrescendo – dynamic order); (3) the rhythmic language of densities (thickness – number of simultaneous sounds – belonging also to dynamic order); (4) the rhythmic language of pitches (high, low – changes of register); (5) the rhythmic language of timbres (phonetic order); (6) the rhythmic language of attacks (legato, accented, all types of staccato, sforzando, etc. — belonging also to phonetic order); (7) the language of rhythmic movement (weak and strong beats – accentuation – cinematic order); (8) the rhythmic language of tempi (*rallentando* and *accellerando* – differences of tempo – belonging also to the cinematic order — extreme speeds, such as those practiced in '*musique concrète*,' have an effect of 'transmutation,' as Varése and Jolivet say, and completely change music and timbre: this is one of the most interesting aspects of the dialectic of tempi); (9) the rhythmic language of transpositions and durations (all possible permutations or transpositions: retrograde movement, center to the extremes, extremes to the center, and the hundreds of millions of others…); (10) polyrhythmic language; (11) the rhythmic language resulting from polyrhythm; (12) the rhythmic language of harmony (there can be a rhythm of chords: Beethoven and Wagner practiced it in juxtaposing conventionally short harmonies with very long held ones — in our day, we could give a particular and more complex rhythm to simultaneous sounds, independent of the rhythm of pitches and of very short rhythms: there would be thus rhythm of harmony, rhythm of melody, and rhythm of rhythm, if I may be permitted this last redundancy…); (13) the rhythmic language of musical premises (premise = modality, tonality, polymodality, polytonality, atonality, twelve-tone series, all other types of series, etc. An opposition or mix of these different places, assigning a particular duration to each one); and (14) the rhythmic language of silence.[11]

For sure, Schoenberg's mature musical idea involves, like Messiaen's, the interrelation and control of several parameters — intensities, accelerations, superpositions, crossings —, and gives rise to infinite compositional strategies. That is, the musical idea is not delineated by the material as such, but by its relations. What matters, in his provisional defini-

---

ning the whole piece in which some sort of opposition or conflict between musical elements is presented at the beginning, elaborated, and deepened through the course of the piece, and resolved at or near the end. […] [I] endeavor to give a complete account of a piece from beginning to end, not presenting the details measure by measure necessarily, but accounting for the processes that characterize every section of a piece. I firmly believe there is no other way to account for 'musical idea' as Schoenberg seems to be characterizing it." Jack Boss, *Schoenberg's Twelve-tone Music…*, 1-2.

[11] Olivier Messiaen, *Traité de Rythme, de Couleur, et d'Ornitologie*, trans. Melody Baggech, 'An English Translation of Olivier Messiaen's *Traité de Rythme, de Couleur, et d'Ornithologie* Volume 1' (Doctoral diss., The University of Oklahoma, 1998), 59-60.

tion (oriented to the presentation of the idea), is the process, the *becoming*, which is complex since it involves a two-fold temporal perspective inevitably, once, in its becoming, it happens as *doubt,* as an *interval* between the continual unfolding of the sounds and the continual existential unfolding of the one that experiences them. This second expansion of the ordinary notion of musical idea is supported by Schoenberg himself, as he says that

> we are obviously as nature around us is, as the cosmos is. So that is also how our music is. But then our music must also be as we are (if two magnitudes both equal a third ...). But then from our nature alone I can deduce how our music is (bolder men than I would say, "how the cosmos is!")[12]

This is my point of departure.

Schoenberg's musical idea reflects and intensifies a particular musical poetics (strictly speaking, his own) and touches an important aspect of the compositional realm. However his intuition of musical idea as *noscentia* — as *knowledge* — is very incipient. He contemplates but does not develop it. To deepen the concept of musical idea as knowledge brings us to the problem of musical time. In this, the philosophies of Bergson and Deleuze, as we shall see, are fundamental. On the one hand, Bergson's notion of duration, and, on the other hand, Deleuze's notion of idea as multiplicity and difference, serve the purpose of such intensification, which will be nuanced by Stockhausen's compositional thought, and by Bachelard's critique of the concept of duration, as he elaborates a notion of *instant*.

Notwithstanding that, Stockhausen's compositional ideas are not placed against Schoenberg's. Instead, they are interwoven in an ampler model of musical creativity that encompasses both the conscious search for formal balance and imbalance and even a desire for a dialectical overcoming of these powers. The *images of temporal complexity* that are presented here emerge from this ampler model, to which Bachelard's notion of instant as I have mentioned above is also crucial. That is, however the idea may be described as multiplicity, and as such as a fluid and engaging, eternally renewed force, forever resignified by the complexities of life, there are always temporal ruptures, absolutely new events: we always resort to articulations of creativity. Bachelard

> avers that there are lacunae in the process of duration, that rest or repose is a significant element in *devenir*, and that true duration is essentially polymorphic. The central paradox in Bachelard's description of temporality is that the phenomena of duration are constructed out of rhythms or *systémes d'instants* and these rhythms are themselves founded upon a uniform and regular temporal base. While sympathetic with Bergson's equation of being and becoming, Bachelard claims that the creative value of becoming is limited in Bergson's thought by the assumption of a fundamental continuity in which the present is construed as uncreative. Against Bergson, it is held that there are, in the interstices of being, gaps and real discontinuities. There is, Bachelard maintains, a basic heterogeneity in the heart of lived

[12] Arnold Schoenberg, "Hauer's Theories (1923)," in *Style and Idea...*, 209–10.

> duration, a complex rhythm of creation and destruction, action and negation, work and repose.[13]

This is the image of temporal complexity: a rupture, an articulation of the becoming. Thus articulated, the becoming is *rhythmicalized*; the idea, which is pure duration, then also encompasses the rhythm.

On these new grounds, in what concerns musical composition, we may well say finally that the necessary expansion of the Schoenbergian musical idea will engage the contemplation of its articulations, of its internal rhythms. The compositional process may be thus conceived of as a domain of musical creativity permeated by *rhythmic ideas*, which overlap and mix in complex manners, each serving a determined purpose. In some cases, diverging goals.

I take as a point of departure the notion that everyone is provided with an elementary musical sense,[14] a primary musicality, which may or may not evolve in distinct manners, depending on the circumstances, by means of manifold compositional processes. Musical composition is therefore fundamentally temporal, and thus rhythmical, not only concerning all possible musical developments it engenders but also in relation to itself, since in order to be critical it has to work out the immanent conditions for this development. On this, it will be initially useful to remember Deleuze's commentaries on Boulez's presentation at the 1978 IRCAM's *Conference on Musical Time*. In it, Pierre Boulez

> has chosen five works: the relations among these works are not relations of influence, dependence, nor of progression or evolution from one work to the other either. There would be virtual relations among these works, rather, which are only released in their confrontation. And when these works confront one another in this way, in a sort of cycle, one specific contour of musical time *X* rises up. So it's not at all a method of abstraction which would go towards a general concept of time in music. Boulez obviously could have chosen another cycle: for example a work by Bartok, one by Stravinsky, one by Varèse, one by Berio. This would then release another specific contour of time, or the specific contour of a variable other than time. Then we could superimpose all these contours, make a veritable map of variations, which would follow the musical singularities each time, instead of extracting a generality on the basis of what are called examples.[15]

---

[13] George J. Stack, "Review: La dialectique de la durée by Gaston Bachelard," in *Philosophische Rundschau* 22, 3/4 (1976): 265-266.

[14] Musical sense is broader than an auditory sense. It involves the being in its totality, all his faculties and musical abilities, including his imagination, and his capacity of aesthetically relating to a certain musical form or sonority. Thus our musicality is not delimited by the reach of the auditory response to music or sound stimuli. Listening is more than hearing. All the same, it is not certain that an auditory sense *becomes* a musical one, since the conditions that orient the emergence of the notion of music itself are never restricted to material aspects of sound: it is not the sound that musicalizes us, as much as a person with auditory impairing is not necessarily less musical than the others. The opposite seems to be truer: it is our musicality that musicalizes the sounds, that is charmed by them, that transforms and shapes them. In other words, we present our musicality using sounds, perhaps because sounds are more suitable for this presentation; certainly any piece of music, as a phenomenon, is more complex than its sonority.

[15] Gilles Deleuze, "Conference Presentation on Musical Time," *IRCAM Conference*, 1977. webdeleuze.com, www.webdeleuze. com/textes/113.

Deleuze says that any musical compositional project informs us, "in between excess and default,"[16] with a specific temporal intensity that integrates, by confronting other temporal intensities, a possible rhythmical order. Beyond that, I put forward, this implies that to achieve the condition of significantly integrating a veritable map of temporal variation, ideally a compositional project must aim at departing from the many by showing a unique *rhythmicality*. Similarly, non-innovative musical works, by taking standardized creative criteria, are thus *anti-rhythmical* in both these senses. To be stricter, this unique rhythmicality reflects the originality of the temporal arrangement that guides a whole compositional process, the totality of its expressive and interpretative powers. The rhythmical element here belongs to the realm of composition, to its aesthetical scope and, as such, it does not imply that the surface of music ought to be rhythmically complex. The anti-rhythmical factor is devoid of difference, and points towards conformity; it is thus a force of liquidation and of aesthetic submission, a force towards repetition, copy and the default of expressive and interpretative contrasts between different creative projects.

By considering that the process of musical composition is essentially rhythmic in relation to a given particular creative project and, once established, it is also rhythmic in relation to all possible creative projects already accomplished in the past and yet to be achieved in the future, I argue that the rhythmicality of this process is set functionally, that is, in a dynamically creative unfolding, in response to the interpenetration of many distinct temporal forces and satisfying distinct compositional domains. Broadly considered, this dissertation is dedicated to explaining the essence and necessity of these forces and domains. In doing so, I try to identify *creative nodes*, intersections, points of rhythmical convergence in a composition, by segmenting the compositional process according to different faculties (sensibility, memory, imagination, understanding, etc.). One must not misconceive these domains as finished compositional models, but take them for what they are: no more and no less than tentatively applied *rhythmical hypotheses* that may be efficient and meaningful aids in creating such models both in theory and compositional practice. Actual compositional processes evolve heterogeneously and never exactly in the same way. Obviously they may eventually be subjected to more or much less complex creative forces than those here proposed. The crucial point here is rather to try to enlarge the scope of the discussion of this evolution, by inferring the existence of a grounding rhythmical order that utterly forms our musicality, than to delimit the evolution of a compositional process by characterizing its creative forces.

The discussion about this fundamental rhythmical order also touches on the problem of representation in music. I argue that the expressive and interpretative powers informed by a given piece of music are mutually influenced. They constantly interact and exchange their meanings, their creative necessities. Musical representation is here neither common-sense representation nor may it be mistaken for a 'musical presentation' — that is,

[16] Gilles Deleuze, *Difference and Repetition*, trans. P. Patton (New York: Continuum, 2004), 332, 342.

following Schoenberg's arguments, be mistaken for musical presentation, the completion of a compositional process in which the expressive powers of a given musical idea are at last demonstrated. The substance of musical representation is not given once and for all, in a generic way, by the composer to his ideal audiences, as if it were a seed to be set indifferently somewhere and nowhere. It is in contrast particularly actualized in many different ways at each individual musical experience. In this view, a given compositional process is always creatively open, 'bridging', so to say, by means of the musical piece, the clash of manifold expressive and interpretative musical powers: the musical piece is thus never finished; there is no seed to be set, but a creative musical domain to be shared.

It is consequently argued here that the interpenetration of the many distinct temporal forces that form the rhythmicality of the process of musical composition reflects not only our specific aesthetic responses to musical time but, moreover, the foundation of our broad temporal experiences. Because our experience of time in general is likewise rhythmically composed by the interpenetration of virtually infinite senses and meanings, it will be possible to suggest a direct, objective relation between this experience and the experience of music. Both answer to a given level of temporal complexity; both may be more or less determinate or indeterminate, either ruled and ordered or adventurous; both may be more or less problematic or indisputable, questioning or apathetic, and so on. Here, I point out that whereas, on the one hand, the experience of time in general may be indeed insurmountable, the experience of musical time is otherwise inevitably committed to a given idea. The experience of musical time *ideally construes* the experience of time in general, which is aesthetically remade, either richly or poorly, in any case, so as to be shared and exchanged, to be used or contemplated. In this sense, the experience of music testifies to the concreteness of life in a given place, period or culture.

The study of musical composition and its representation are here thus considered as compounding a complex creative process of temporal structuring, of *rhythmicalization*. Here I investigate how this creative process imprints the piece of music, functionally, with expressive and interpretative musical forces,[17] in accordance with the quality of its duration and the level of its complexity, as a response to the mutual influence, or reach of one's sensibility (a perceptive power or capacity) and understanding (an intellectual capacity).

All in all, I try to reinterpret Schoenberg's notion of musical idea, which is not viewed here exclusively as a function of thought, but as resulting necessarily from the interplay of perception and thought. It results both from a musical sensibility which, emerging from the presence and concreteness of life, progresses expressively by means of a 'lyrical'

[17] These forces are considered here both from the perspective of the individual creative act and of the historical development of musical composition as Art. Thus expressive and interpretative musical forces are forces that respectively expand and contract a given musical domain or musical tradition. Expansion and contraction are functions of musical time. To expand means to behave expressively offering a (musical) view of the complexity of the world, while to contract means to behave interpretatively applying to this complexity a determinate (musical) understanding. A further discussion on these matters will be found in Chapter 3.

musicality; and from a musical understanding that, out of our power of generalization, advances interpretatively by means of a 'dramatic' musicality. These distinct musicalities are blended and form the rhythmicality of the musical piece. Since, conversely, it is only by means of a musical piece that this rhythmicality may be represented, I argue that the piece mirrors (according to the reach of musical representation) its very own compositional process, becoming a complex temporal datum, as it were, that informs us, transcendentally, about the nature of most comprehensive temporal experiences and conceptions.

The research thus proceeds from three primary questions: (i) How does our musicality — our musical sense — emerge, and on which basis? (ii) Considering the installation of a given process of musical composition, and always in respect to the immanent conditions of our musicality, how does this process receive its rhythmical form, that is, how is it rhythmicalized? (iii) How do the expressive and interpretative rhythmical forces that compose the designed rhythmicality of a given compositional process interpenetrate creatively? Furthermore (taking as a point of departure from these questions) it could also be asked (iv) how does this creative interpenetration impact the presentation and representation of a given musical work? And, finally, (v) how might the inner qualities of a given musical representation inform us about our general temporal conceptions and misconceptions?

A main premise of this discussion is that not only thought exists but also sensibility,[18] perpetually exchanging their creative, vital powers, specially in the sense discussed by Deleuze in *Difference and Repetition* and *A Thousand Plateaus*, and by Bergson in *Time and Free Will*, *Matter and Memory* and *Creative Evolution*. Their creative powers are responsible for the manifestation, the emergence of a dynamic and heterogeneous temporal field, the cause of our musicality. A second important premise is that even if the being needs to be seen as an indivisible whole, throughout time, as Bergson says, its faculties (memory, imagination, thinking, etc.) can be analysed, as Deleuze has done, as articulated qualities of that indivisible whole. This is what Valentine Moulard-Leonard says, in *Bergson-Deleuze Encounters*, when she advocates that "these two thinkers share a more or less explicit dedication to a revaluation of the transcendental conditions informing the Kantian and phenomenological image of experience."[19] So is my own thesis, which, by raising the problem of a necessary ontological and psychological integration and simultaneity in us of temporal continuity and temporal articulation, leads to the notion of temporal complexity here discussed. This is the work of the transversality I suggest: to justify the temporal continuity of the self, *between* different faculties, by means of Bergson's thought; and the temporal articulation of the self, considered *within* different faculties, by means of Deleuze's thought.

---

[18] This is why I seek orientation in Bergson's philosophy, as it "affirms the reality of spirit and the reality of matter." Henri Bergson, *Matter and Memory*, trans. N. M. Paul and W. S. Palmer (New York: Zone Books, 1991), 9.

[19] Valentine Moulard-Leonard, *Bergson-Deleuze Encounters: Transcendental Experience and the Thought of the Virtual* (Albany, NY: State University of New York Press, 2008), 2.

The thesis also has as a premise the fact that the interchanging of sensibility and understanding renders a deep rhythmicality responsible for the emergence of distinct rhythmic ideas. This notion is based on Schoenberg's considerations about central aspects of compositional practice, introduced in his posthumous *The Musical Idea and The Logic, Technique and Art of its Presentation*. I also touch, indirectly, the theories by Karlheinz Stockhausen, presented in his articles "… How Time Passes …", *The Concept of Unity in Electronic Music and Structure and Experiential Time* and, although tangentially, some of Ernst Kurth's considerations of musical energetics, presented by Lee Rothfarb in *Ernst Kurth, selected writings*. So I develop a distinction between (i) Schoenberg's notion of the musical idea, as he sees it as the source for the composition of the musical piece, which should be approached as a necessary but subsidiary element of the compositional process, and (ii) Stockhausen's phenomenological insights about the perception of musical matter, since he sees the musical piece as a force of determination for the composition[20] of a musical idea. In other words, for Schoenberg, a musical piece gravitates around the musical idea, while for Stockhausen it is the musical idea that gravitates around a musical piece. Thus, for Schoenberg, musical time is a power *induced* by our musical conception whereas, for Stockhausen, it is a power *deduced* from our musical *perception*. In this thesis, otherwise, musical time is a result of a superior intuition about the mutual influences that musical conceptions and perceptions may share functionally.

Thus, there is a complex rhythmicalization process that forms the rhythmic idea. The unfolding of this premise sets up the content of this thesis, in which significant new temporal and rhythmical notions and a new terminology arise: (i) the notion of rhythm as a complexity forming a heterogeneous musical time, (ii) the notion of non-determination, determination, difference and repetition as the main rhythmical powers of musical time; (iii) the notion of the implicitness of memory and imagination as factors that further structure rhythmically and functionally the complex temporality of the musical idea; and the notions, to be developed in future, of (iv) *systemic and metric orders of rhythmical distribution* that temporalize the musical idea, capturing it, so to say, within a field of musical manifestation, the piece of music; and (v) that of musical representation; that representation in music exists by reflecting — subjectively and collectively — socially, culturally, historically — determinate response-levels to the rhythmicality of a musical piece and, consequently, of the musical idea engendered in its compositional process.

[20] There is a difference of focus. Schoenberg is concerned with composing the *presentation* of the musical idea, which is technically considered as a means of discussing the idea as it is. Here, however, the *composition of the musical idea* is privileged: the presentation of the idea, even though significant, is not the fundamental part of the compositional process, being it in relation to this process only as its final stage. In the first case, the idea is *fixed*, and out of time; in the second case, the idea is dynamic and heterogeneous, and inseparable from its experience.

II — THE GROUNDS

Schoenberg's musical idea

Arnold Schoenberg proposed that

> Composing is thinking in tones and rhythms. Every piece [of music] is the presentation of a musical idea. Musical thinking is subject to the laws and conditions of all other thinking, and beyond that, one must take into consideration the conditions resulting from the material. All thinking consists essentially of bringing things [concepts, etc.] into relationship with each other.[21] An idea is the production of a relationship between things otherwise having no relationship to one another, thinking therefore searches out the relationships between things. Thus,[22] every idea is based on relationships, but it is not considered here whether the relationships between the things concerned would serve the presentation of a relationship between these *things*.[23]

By postulating coherent thinking as the grounds for musical composition, the Schoenbergian compositional project entails, consequently and necessarily, a search for potential links and hierarchies, to bring tones and rhythms otherwise unrelated into some relationship. Schoenberg argues that the searching for and the creative establishment of tonal and rhythmical relationships manifest, in any case, a determinate musical idea. Obviously, different classes of tonal and rhythmical relationships point to different classes of musical ideas, traditional or innovative, which are differentiated by the quality and complexity of the relationship they comprise. Producing musical ideas is thus declared the main object of musical composition but, beyond that, we additionally learn from Schoenberg that to compose music may also mean to strive to communicate a given musical idea by means of a musical piece. It follows that musical ideas, constituting as they do the essential substance of our musical thinking, are in fact virtual and must not be confused with the actual, sonic means used to present them. Musical composition hence is finally set between two creative problems: on the one hand, the problem of creating potential links and hierarchies between tones and rhythms that are, otherwise, unrelated and, on the other hand, the problem of actually demonstrating these relations to someone else's judgment by means of musical pieces.

There are important points here to consider.

Certainly, we must agree, following Schoenberg's arguments, that musical composition as a form of thought goes beyond the concrete, audible musical level of sounds and

---

[21] Schoenberg means specific classes of relationship: coherent relationships. On musical coherence, see additionally the transcriptions of Anton Webern's 1932-1933 private seminars "Path to the new music," and "The path to twelve-tone composition," in Anton Webern, *Der Weg Zur Neuen Musik / Der Weg zur Komposition in 12 Tönen* (Vienna: Universal Edition, 1960).

[22] Note that Schoenberg clearly distinguishes here between musical relationships that form or compose the idea and those which form or compose *the presentation* of the idea.

[23] Arnold Schoenberg, "Zu: Darstellung des Musikalischen Gedanken (On: the presentation of the musical idea)" manuscript no. 6 (1931), in Schoenberg, *The Musical Idea…*, 252.

rhythms. In line with Schoenberg's initial arguments, I maintain that musical composition must be understood as a form of thought, declaring however that thinking is actually more than a sort of fundamental matrix of coherent operations. It is, as well, a vital force or act that, conscious of itself, composes with other vital forces a general sense of freedom, which is fundamental once we are investigating creative, artistic processes. It may also be understood as a vital flow that surpasses the plain management of the concrete data that spring from sensorial experience; as a 'sense-continuity' which is aware, in its own flow, of the all-embracing transcendental process of which it is a part. For I believe that musical composition, beyond a search and establishment of relationships between sounds and rhythms, as Schoenberg suggests, results from a specific form of thought that also involves, on the one hand, the capability of judging, of decision making, an active and free creative consciousness, as well as, on the other hand, the capability of questioning the present circumstances, of conceptualizing and representing them in creative manners. Musical thinking must be thus considered among the problems that ground the complex extension of the subject, including what is immanent to the senses and what transcends them metaphysically.

Secondly, there is in Schoenberg's proposition a suggestion that a piece of music is a formal structure which *demonstrates* a given musical idea. To deal with a piece of music as a means of presentation for a given musical idea implies considering the piece of music as an extension or unfolding of a virtual datum that one wants, or at least expects, to be representable (and represented). However, considering that this virtual datum is not in fact directly representable — because it is only representable by means of a piece of music —, how could it be actually delimited?

I argue that this delimitation would depend upon the power or *reach*, so to say, of its resulting representation, more (if not totally) than upon the means of its presentation. Schoenberg himself, as he hints in his writings about the notion of musical idea,[24] declares that the techniques of presentation of a musical piece (by development, chiefly in homophonic contexts, or by unfolding, with regard to polyphonic textures, etc.) should ideally serve this reach by resisting or enabling the representation of the musical idea. 'Creative resistance' and its opposite would thus stand as main compositional strategies, informing distinct musical cognitive trends, namely, musical forms. Form in music, in this particular sense, flows in concert with two antagonistic forces, providing itself a sort of rhythmicality: with an expressive compositional power, responsible for establishing cognitive zones of superior resistance, that is, for concealing the interpretation of a given musical idea and, otherwise, with an interpretative compositional power, which is indeed compositional, once it is responsible for providing representational ways of delving 'into the piece' and, therefore, for allowing the discovery of its grounding ideal expressive impulses. There are hence expressive and interpretative musical forms conveyed by expressive and inter-

[24] Schoenberg, *The Musical Idea…*, *passim*.

pretative compositional powers. In this context, I argue, still oriented by Schoenberg's point of view, that musical art would be circumscribed by the creative power of the musical idea (by its power of creating expressive and interpretative forms), in particular in what relates to its originality and irreproducibility. By the same token, the compositional work in presenting a musical idea should be understood as proper to a given applied technique only, and whatever applied technique should be seen more of a handicraft than of an artistic concern, and so feasible of being systematized and imitated.

But now we face another difficulty. How is it possible that a virtual datum, in itself not representable and dependent upon a presentation technique, could be considered characteristically musical, however devoid of the formal elements that we normally deem to be necessary to constitute a musical piece? In other words, what that is characteristically musical would remain in a given musical idea if it were possible to isolate it from all musical production that preceded and succeeded it? What that is characteristically musical in a given musical idea means after all? From this derives the difficulty of actually understanding Schoenberg's notion of musical idea, which many times is mixed, in his discourse, with a diffuse sentiment of inspiration, of pure musical creativity.

Alternatively, we may tentatively suggest that this virtual datum, even if not characteristically musical, would be so *in retrospect*, by the reach of an always dynamic musical understanding, which is cast over, and beyond, the concreteness of the piece of music during its representation. This way, the musicality virtually envisaged during the representation of a piece would answer to a given musical understanding, a given 'musical education' that reaches into a virtual datum transcendent to the musical piece itself — and not to the musicalness intrinsic to this datum. There would not be, so it seems, the musical idea, as Schoenberg understands it in principle, but rather only as a sort of 'residual reflection,' during representation, of a certain musical understanding, which persists virtualized, notwithstanding the multiple formal transformations seen on the surface of a musical piece in its flux.

This alternative however is not enough of a solution for Schoenberg's problem, because, even considering the hypothesis that the *idea* were residually musicalized by a given musical understanding applied to a given musical piece, it would not be correct of course to affirm that *the piece* in itself would be completely void of musicalness, or rather, that this musicalness would also depend totally on a given musical understanding. If it were so, both the musical idea and the musical piece would be devoid of expressive factors, which is difficult to believe.

When we consider that a musical piece possesses, or is intrinsically and objectively charged with a certain musicalness that is presented to a given musical understanding, we have to deal with, on the one hand, the questions of what in fact consists this musicalness and how is it present in there; and, on the other hand, the questions of how was this understanding formed and what forms it in first place. In other words, what is the

possible *origin* of the musicalness of a musical piece and of the understanding of it? If it were 'natural,' one could say that it stems from the musicality of things and from our understanding of this. Even so, after Kant, it is known that at least apparently our experiences of things are mediated by our subjectivity, by our ideas. It is thus only possible to exercise our understanding of the musicality of things by means of a musicality that is already 'removed' from them themselves, that is already virtual.

Would it be possible to ascertain that the origin of the musicalness of a musical piece, as well as the source of the musicalness of our understanding of it, lie in the *musicalness of the idea*? It is surely a difficult problem that easily makes us go round in circles. Schoenberg tries to solve this issue by saying that a piece of music presents a musical idea, but unfortunately refrains from considering the fundamental question about the essence of the musicalness of the idea and its expressive-interpretative power. That is, he says nothing about the concrete relationship that may be compositionally established between this musicalness and the musical forms perceived in a musical work. Additionally, he also refrains from directly considering the problem of musical representation.[25]

But then, as the philosophy of Deleuze has more recently demonstrated, it has been possible and necessary to extend the general discussion of the notion of idea, by involving it dialectically in the more clearly cut discussion about the identity of the concept and therefore of representation. This implies a new debate about the transforming power of the idea, about its multiplicity and creativity *beyond* a given particular understanding, including a musical one. On the basis of this recent theoretical path, it is possible to reconsider prior Schoenbergian intuitions of the problem of musical idea and its presentation, adding new elements to it. We may now declare that a musical idea, as idea, is charged simultaneously, in a mutually advantageous relationship, by distinct *musicalizing agents*: that the musicalness of the idea is granted, on the one hand, by the musicalizing agency of sensibility in its convergence with the power of understanding; and, on the other hand, by the musicalizing agency of understanding in its blending with the power of sensibility. It is possible to propose that the musicalness of the idea is, in fact, a necessary source of the compositional act, so that this musicalness may be reflected on the musical piece and consequently in its representation. It is possible because, in this particular case, the power of understanding is no longer placed, so to say, outside the domain of the idea, but composes, with the power of sensibility, the very field of creativity — a virtual rhythmicality — that cannot exist otherwise.

I uphold here the centrality of the musical piece, in the sense that it neither exists as a

[25] Further discussion about these matters is provided by Edward Campbell, "Identity, Difference and Repetition: Boulez, Webern and Schoenberg," in *Music after Deleuze* (London: Bloomsbury Academic, 2013), 11ff.; also by Martin Scherzinger, "*Enforced* deterritorialization, or the trouble with Musical Politics," in *Sounding the Virtual: Gilles Deleuze and the Theory and Philosophy of Music*, ed. Brian Hulse and Nick Nesbitt (Farnham: Ashgate, 2010), 103ff. Also in Bryan R. Simms, *The Atonal Music of Arnold Schoenberg, 1908-1923* (Oxford: Oxford University Press, 2000), 69ff.

means of presentation of a given musical idea to one's representation, nor as a means of musicalizing the idea in its representation, but as a formal concrete datum that *simultaneously* receives, according to innumerable levels of temporal, rhythmical complexity, the musicalizing force of sensibility and that of understanding.

This way, musical creativity always depends on that both musical understanding and musical sensibility reach towards one another. It seems that these forces are formally fused and *confused* in a piece of music: *at each interpretative moment,* interpretative compositional data is projected over the musical piece, defying the piece's expressive power; otherwise, *at each expressive moment,* expressive compositional data is projected over the musical piece, confronting the piece's interpretability. So the piece may be considered a *time of intertwining* of distinct musicalities and, thus, as time, more fully considered according to its temporal attributes; more readily, every musicalness should be understood as an attribute of musical time. A musical piece is rather a *complex temporal form* that blends expressive and interpretative *musical times* one into another, as will be seen. To approach musical pieces having in mind this interpenetration of musical times is very important. Furthermore, it is critical to build up rhythmical arguments in support of this interpenetration, since it always seems to happen within the context of a given rhythmicality, going unnoticed outside it. With this in mind, and as indicated above (cf. page 16), this thesis aims *to present a view of musical composition as a dynamic and complex temporal process that is actually composed by a permanent interaction of innumerous creative impulses*.

Thus the goals of this thesis are to discuss the compositional process as a process, as something that happens in time and so to discuss musical composition as an integral experience, that is, both as expressive and interpretative experiences (including both the creative forces that generate and those that emanate from a piece of music); a discussion that necessarily touches transcendental issues that surpass the immanent conditions of musical presentation, namely the score or the musical performance, that usually dominate the interests of traditional analytical studies. A main goal is thus to build a net of structured reflections that would allow us to approach, to study and consequently to explain the creative forces that motivate and sustain a musical compositional project.

Thirdly, I argue that Schoenberg partially points to this same direction by suggesting that there is a form of thinking that is musically specialized. He suggests that musical thinking would be ruled by the same laws and conditions of thinking in general. However, if musical thinking is actually managed by the same laws and conditions of thinking in general, which benefit would we have distinguishing between one another forms of thought? Is Schoenberg suggesting in fact that all forms of thinking are musical? It seems to me that what he really intimates is that musical thinking *depends upon* a concrete *modus operandi* of thought: on its power to project or to build — at different times and places[26] — bonds between meanings, orientations, strategies, and behaviours, that put these in relationship

[26] Deleuze, *Difference and Repetition,* 84.

and thus *bring them closer*; in a word, on its cohering power. Moreover, for Schoenberg, musical thinking also responds to formal conditions that emerge directly from the musical material, such as length forms, frequency forms, timbre forms, dynamic forms, articulation forms, etc. For Schoenberg, according to himself, to think musically would not be much more than casting a cohering force over such forms, while composing would be the task of defining the best cohesion strategy in each case.[27] But, would the musicalness of our thinking be restricted to cohesiveness only? It seems that answering this question is fundamental.

It is about the possibility and viability of a thought of greater breadth that the discussion raised by Deleuze on the issue of "difference in itself" in its relation to the identity of the concept, that is, on the relationship between the concreteness and presentness of the thing and its past and future generic forms, is presented here.[28] It is viable because, as Edward Campbell comments,

> Even with the limit example of the exact repetition of a musical motive, phrase, theme, subject or rhythm, it is widely accepted that a second enunciation can never be identical to the first. At a structural level, the fact of its different placing within the framework of a movement and the particularity of its interpretation make it automatically unique and individual. This may well be an area where Deleuzian difference calls us to give up all laziness in our listening habits, the kind of listening which takes shortcuts and which thinks, 'no need to listen to this bit as it's just the same as what went before'. As for dismantling notions of identity, it may be difficult to go further than Harrison Birtwistle, who is reported as having claimed that he could have composed the same piece with entirely different pitches, a statement which perhaps raises the question of difference and identity more poignantly than any other. […] Perhaps the most identitarian category in music is that of 'music' itself, that impulse which says 'this is music, but that isn't'. Again, this is an impulse which reduces all musics to good and bad copies of an ideal of what music is. The Deleuzian alternative is ultimately one in which all musics are actualities of music in its virtual state, a statement which for some will be so bland as to be meaningless.[29]

To bring distinct times and places into relationship, to make them cohere, always depends on voiding the real thing of its concreteness, on a generalizing effort. Certainly, powers of generalization and conceptualization underlie the cohesive force of thinking. But beyond or *before*, so to say, the process of producing a generalization, a concept, there is *the thing in itself* — in the sense of the Kantian doctrine of the *noumenon* as a posited object

---

[27] Cf. note 23, above, Schoenberg, "Zu: Darstellung des Musikalischen Gedanken...," in Schoenberg, *The Musical Idea…* , 252. Also cf. Boss, "Musical idea and symmetrical ideal," in *Schoenberg's Twelve-tone Music…* , *passim*.

[28] For Deleuze, there are two types of difference, a difference that opposes identity, and a difference that exits by itself. Identity "exists as a principle but as a second principle, as a principle become; […] it revolves around the Different: such would be the nature of a Copernican revolution which opens up the possibility of difference having its own concept, rather than being maintained under the domination of a concept in general already understood as identical." Deleuze, *Difference and Repetition*, 50.

[29] Edward Campbell, *Music after Deleuze* (London: Bloomsbury Academic, 2013), 34.

or event that exists without sense or perception[30] — a thing yet to be generalized, in its absolute singularity and irreproducibility. It is on the grounds of this singularity that thinking produces generalizations (not the opposite). This considered, I argue that, in its larger scope, musical thinking happens not only by the management of past and future generic forms, of concepts, as Schoenberg apparently suggests, but also by the management of the concreteness of the present, and, moreover, by the management of the complex ontological process of transmutation of this concreteness into 'deep or shallow' forms of memories and imaginations.[31]

However, is thinking really able to grasp it, to progress over the concept towards the singularity of presentness, of the experience time? Is this indeed a function of thinking? It might be appropriate to say, with Schoenberg, that the force of cohesion that coexists in musical thinking do belong to thought and thought only, resulting from its generalizing power. *But then*, to enlarge this notion by suggesting that the concreteness of each experience indeed only arises to us by means of sensibility. This is a suggestion I have been persistently favouring: that, beyond the Schoenbergian notion of a musical thinking that is governed by the same rules and conditions of all other ways of thinking,[32] we may contemplate as well, of necessity, the notion of a musical sensibility that is governed by the same rules and conditions of sensibility, in general.

Because the main attribute of sensibility is to retain from things something of their *duration*, as Bergson would say — or of their *intensity*, in Deleuze's jargon —, thus it will be a function of a musical sensibility to provide the musical idea creatively with favourable conditions for a *temporal expansion* of musical thought, for giving birth to new musical concepts. By the same token, it will be conversely a function of a musical thought to exercise, over the musical idea, *temporally contractive* representational structures that allow for the notions of past and future, temporal structures that may be more or less innovative or conforming and compliant, so that they continuously superimpose the uses and costumes of a given musical culture over the power of presentness of sensibility. Considering for a moment our common musical practices, creation in music progresses exactly thus, by temporal expansions and contractions, like a living organism, imitating, by the way, our living experiences. New pieces of music are always, and everywhere, created; some are innovative, thought-provoking and challenging because of their originality, while others answer to a given control, to a given practice that is regulated by cultural and historical traits. There are musical pieces strongly linked to the sensible, to the now, whereas there are others that are part of our repertories, both as past forms that we revisit, remember and refer to; and also as future, living forms that are still being developed.

---

[30] Immanuel Kant, *Critique of Pure Reason*, unified edition, trans. Werner S. Pluhar (Indianapolis: Hackett Publishing Company, 1996), 319.

[31] See Bergson, *Matter and Memory*, 33ff.

[32] Cf. note 23 above, Schoenberg, "Zu: Darstellung des Musikalischen Gedanken...," in Schoenberg, *The Musical Idea…*, 252.

Therefore, stemming from a critique of Schoenberg's delimitation of the problem of musical idea, which in my point of view is quite narrow, this dissertation presents a view of musical composition as something at the same time immanent and transcendent to thought. It is a view that necessarily favours the centrality of the piece of music in its relations to different manifestations of our musicality. It suggests, all in all, that musical ideas are a necessary means for these manifestations, as far as they are considered creative forces that both problematize thinking — or rather, the power of understanding — in response to the action of sensibility as it invests the drive for cohesion and articulation of thinking with that of liberation and continuity; and the power of sensibility in response to the action of understanding.

The rhythmic idea

I argue that musical composition is, therefore, a process by which sensibility and understanding are related by means of a determinate rhythmicality. This implies saying that sensibility and understanding are not musical in principle but become musical during a compositional process, which projects onto their temporal evolution a determinate rhythmic complexity. Their musicality depends thus on the establishment of a heterogeneous duration, which is always complex, rhythmic, 'in-formed' by the vital interaction of qualitatively different intensities.

The notion of intensity in Deleuze's thought was developed initially from Spinoza's "philosophical ambition to view all of life as the expression of a fundamental striving or *conatus*, so that the body becomes an ensemble consisting of those forces that it transmits and those forces that it receives."[33] The notion was further developed in Deleuze's work on Nietzsche who follows Spinoza's injunction: we think "in terms of speeds and slownesses, of frozen catatonias and accelerated movements, unformed elements, nonsubjectified affects."[34] As Deleuze sees it, primary in Nietzsche's philosophy is his "method of dramatizing thought. In this staging of thought or *dramatology*, the speed and slowness with which a concept is moved, the dynamism of its spatiotemporal determinations and the intensity with which it interacts with adjacent entities in a system all become *primary*."[35] For Deleuze, Nietzsche in his writings on intensities tells us not to "trade intensities for mere representations. The intensity refers neither to signifieds which would be the representations of things, not to signifiers which would be the representations of words."[36]

With this in mind, I argue that a direct product of that interaction, in music, is a composite fundamental rhythmic virtuality I call *rhythmic idea*. Rhythmic ideas thus result or emerge from a 'virtual body,' from a mixing of those vital forces this body transmits (that is, all

[33] Kenneth Surin, "Force," in *Gilles Deleuze Key Concepts* (Durham, Acumen, 2005), 21.
[34] Gilles Deleuze, *Spinoza: practical philosophy*, trans. R. Hurley (San Francisco: City Light Books, 1988), 129.
[35] Surin, "Force," 23.
[36] Deleuze, *Difference and Repetition*, 257.

possible products of understanding, such as intellectual experience, concepts, levels of generalization, necessity and determination, analysis, articulation, etc.) and receives (the products of sensibility: the sensible experience, the percept, levels of particularization, indeterminacy and non-determination, insight, continuity, etc.). Rhythmic ideas may be thought of as well in terms of speeds and slownesses, spatiotemporal determinations, all that relates to dramatology. However, I add, they may be conceived of also in terms of negative velocities — not of frozen catatonias, but of extremely concentrated lively presentnesses.

I call *dramatic temporal qualities* those broad notions usually identified with the power of understanding, such as determinability, linearity, repetition, etc.[37] A dramatic quality, in this specific Nietzschean sense, is motivated by a necessity of conquering unbalance and unrest, or any kind of irregularity, of providing them with logical attributes, of 'abstracting' from them some direction, levels of certainty and causal relationships, etc. Speeds and slownesses are side effects of this drive for temporal control — understanding consists essentially in taking preponderantly into account a given resemblance. On the other hand, I call *lyrical temporal qualities,* those wide-ranging notions commonly identified with the power of sensibility, such as indeterminateness, nonlinearity, difference, etc. For a lyrical quality is thus motivated, in turn, by a necessity of giving free rein to unbalance and unrest, of exploring their sense of uncertainty and vagueness, the here and now, their irregularity and probable non-causal relationships, etc. — sensibility is essentially *consent*, openness, fulfillment, non-necessity and anti-desire; it is preponderantly unlikeness.

Thus, the rhythmicality of the musical compositional process is grounded on dramaticism and lyricalness, linked as they are, respectively, to the notions of construing *identities* and *destinies* and of disassembling them. They also may be temporally *expansive* and *contractive*. Deleuze, recalling Spinoza, claims as well that a temporal expansion happens as an answer to the *reception* of those impressions that come concretely to our senses directly from the infinite diversity of the things in themselves — all their possible relations included. Yet, he also claims that a temporal contraction means a return to the things, by *giving* them virtual impressions stemming from the (virtually infinite) depths of mind.[38] The rhythmicality of the compositional process assumes, therefore, a psychological dimension, set by the level of one's attention to life, and established, dynamically and het-

[37] Stockhausen also develops the notions of lyric and dramatic form in his lecture "Musical Forming." See Stockhausen, *Stockhausen on Music...* , 53-62. I am also considering here arguments resulting from Deleuze's discussion on the genesis of thought and representation. In *Difference and Repetition*, he proposes three 'passive syntheses': the synthesis of sensibility, the synthesis of memory and imagination, and the synthesis of thought. For Deleuze, thinking emerges as a 'cognitive moment.' This moment of emergence occurs however only after the consolidation of memory and imagination and according to the nature of individual sensibility.

[38] Giles Deleuze, *Bergsonism*, trans. H. Tomlinson and B. Habberjam (Brooklyn, NY: Zone Books, 1988), 60.

erogeneously, between the time of reception and the time of *reflection* of each lived experience.

So the rhythmicality of the idea would depend initially upon these very fundamental notions: as dramaticism and lyricalness, as temporal expansion and contraction, the idea always conveying a complex *composite* temporal realm. I suggest that what we actually compose, when composing music is, at the very start, the nature of this primary rhythmicality; not sounds. Even in case of just manipulating creatively (either instrumentally or electronically) a given concrete sonic matter, without having yet decided its particular compositional amplitude or use, and without whatever formal plan in mind; or even in spontaneous improvisation based upon some compositional orientation (as Stockhausen does in his A*us den Sieben Tagen*), a given rhythmicality emerges instantaneously.[39] We always have to think about it; we have to perceive it, to pay attention, to listen to, to slow down the creative impetus to access a new, original rhythmical configuration.

Musical representation also depends on this, on supposing a whole complex rhythmic reality that transcends the musical piece. It depends on conceiving that every piece of music reflects a deeper, virtual rhythmic integration of temporal dramaticism and lyricalness. A musical piece thus becomes a sort of temporal window, allowing us to think and sense time in us, and to develop our thinking and sensing of time in general.[40] The very reason for composing a piece of music, it seems, is to offer one a different, sometimes very unique and individual, at times broad and cultural, temporal perspective.

Rhythmic ideas are hence precise musical ideas. However, we may want to delineate them but not for the sake of making up any sort of compositional mechanics. Studying them in this way has more to do with the want for investigating the depths of the musical compositional process, which is indeed immensely complex. Moreover, it is complex because each temporal trait really composes heterogeneously with other traits an overwhelming net of living impressions. The search for precision here also represents an attempt to propose a new analytical direction in music. One that could not be offered otherwise: the analysis of the musicality and rhythmicality that engenders a musical piece beyond the analysis of the musical piece itself.

Any idea is grounded by a fundamental duration. In this dissertation, I venture the analysis of this duration by addressing some of its potential articulations. One may picture this

[39] In Stockhausen's own words: "We will try having each of them [the other composers in the project], stimulated by some examples which I have made this year, find a process through which a higher consciousness manifests itself in music […] I shall give examples, and each of them will then try meditating about enlarging that consciousness that can become music. He will in this way plan a process which can take place among people who listen, concentrating on the inner vibrations." Interview with Peter Bockelmann, from a German radio broadcast, printed in Stockhausen's *Texte III*, Karlheinz Stockhausen, *Texte zur Musik 1963 - 1984*, vol. 3 (Kürten: Stockhausen-Verlag, 1991), 313.

[40] There is here a coincidence with the notion of musical time developed by Gisèle Brelet in *Le temps musical: essai d'une esthétique nouvelle de la musique* (Paris: Presses Universitaires de France, 1949), 16ff.

intent by recalling, for instance, that we select a chord and not another for exact rhythmic reasons, and we do the same regarding a precise sequence of chords. This practice, in fact, goes from plain to complex agglomerates of sounds, tonal cadences and series, timbres, modes of attack and dynamics, and so on. We are constantly approaching rhythmic features and rhythmic relationships when reading, listening or performing music, but — and more importantly — whenever doing that we are actually accessing, by means of such superficial rhythmic features, a superior rhythmicality, the rhythmicality of musical composition itself, which, as composition, deals preponderantly not with sound forms but with rhythmic ideas. Moreover, the whole process of musical composition is rhythmically composed on the basis of the complexity of broad temporal insights. In this perspective, if a chord operates, for instance, in the general representational context of a rhythmic idea, the rhythmicality of this idea operates itself, in turn, in the general context of our representation of time.

Compositional domains

In support of these notions, I suggest a dynamic-rhythmical image from which the rhythmicality of the compositional process is viewed like 'revolving', as in a concentric spiral, around distinct temporal complexities or distinct *compositional domains*, which, I argue, are circumscribed by an eternal rhythmical activity, which is eternal in the sense of a pervasive and serial action that interweaves dramatic and lyrical temporal attributes. In this dissertation, a first, broadest compositional domain is defined, which results from the rhythmical interchange of the fundamental dramatic and lyrical ontological impulses just noted. These I call *musical times*.[41] Other compositional domains, comprehended by the first, are addressed in an introductory way by what I call the domains of *musical temporalities*[42] and *musical temporalizations*.

Musical temporalitites are seen as intermediate psycho-physiological impulses, dramatic and lyrical time-functions I here initially relate with determinate pulse qualities that emerge from the rhythmical interchange of memory and imagination types. On this, I follow Bergson's arguments[43] for the temporal complexity of memory in proposing that there are *shallow*, mechanic memories, which operate automatically and straightforwardly, as well as *deeper*, fluid memories, which live in us in constant movement answering the present situation in many subtly different ways — memories that are not that automatic though still moved by habits and rationales. Because, as Deleuze additionally argues,[44]

[41] I use the plural form *times* because musical time is actually temporally multiple: there is not one fundamental time in music only, but many in multiple fashions.

[42] *A musical temporality* here stands for a particular elaboration of musical time. It is introductorily suggested in this dissertation that temporalities work as if they were a sort of intermediate temporal domain that 'filters' musical time, so to say, by answering to a given rhythmic tendency, which may be more or less regular or irregular, and more or less steady (rhythmically fixed or determinate) or mobile (rhythmically vague or ambiguous).

[43] Bergson, *Matter and Memory*, 150-155.

[44] Deleuze, *Difference and Repetition*, 91, 97, 169.

memory and imagination are so deeply integrated, I touch this matter following Deleuze's arguments as well by suggesting the hypothesis of the existence of shallow and deeper forms of imagination. The point here is however much less to address the temporal complexity of memory or imagination themselves, that is, as memory and as imagination per se, which goes obviously beyond the scope of this dissertation, than to infer, hypothetically, on how memory and imagination may eventually compose a complex net of temporal interactions in music. Here things become more complicated because in this case different memory and imagination types must be conceived of as impulses that are internal to the rhythmical interplay of sensibility and understanding, as previously commented. And, in order to be so, one must conceive of shallow and deeper memory and imagination types as being embraced, so to say, by each dramatic or lyrical fundamental temporal configuration. So, it is my suggestion that an intermediate temporal scenario does exist and is formed by a complex amalgam of rhythmical impulses that emerge amid the integration of different memory and imagination types. But, in spite of that, it is also my suggestion though that this further rhythmicalization of the musical idea accepts so many potential variations and nuances that its proper analysis deserves a greater and dedicated theoretical consideration in near future.

Musical temporalizations represent a compositional domain that is comprehended by the functional interaction of the dramatic or lyrical influxes of musical times and temoralities, and is responsible for the definition of the most superficial formal attributes of a musical piece, its systemic (structural) and metrical character; that is, for the rhythmical proportions perceived as sound-qualities (harmonic spectra) and durations (melodic spectra) conveyed by a specific compositional organization of sounds and silences presented at the musical foreground. Also, as stated above in regard to musical temporalities, it is not my intention to fully explore this domain in the present dissertation, but just to introduce some main aspects I believe deserve to be yet carefully developed theoretically. Anyway, we face here a compositional domain that encompasses the most superficial rhythmical shape of a musical piece, a domain that is in many senses often treated — by musical analysis, for instance, performers, listeners, etc. —, as the very fundamental one, that is, as the source of musical time. I insist however that it cannot be so. Mistaking the rhythmic surface of a musical piece with the broad notion of musical time it conveys must be avoided because, otherwise, it would be impossible to establish any valuable aesthetic relation between different pieces: the very foundation of Music History, as discipline, depends on this. The musical piece stands to one's musical perception and musical knowledge actually as a temporal surface; it is offered to one's musical representation as a temporal experiment. The interpreter, consciously or not, will perceive and think the piece of music through the rhythmic ideas it conveys, not the opposite; however in doing that he *completes*, as it were, the compositional process, fulfilling it by means of his own, intimate elaboration of those rhythmic ideas, in a process made up via incommensurable acts of recognition, that account for his musical aesthetic impressions.

III – MAIN CONCEPTS

The main notions that ground this dissertation are those of emergence, creativity, and originality; of musical expression and musical interpretation; of the meanings of musical composition, musical time and musicalness; of lyricalness and dramaticism; and of musical representation, as it develops the all-embracing notion of rhythmicality. As already said, the philosophies of Bergson, Deleuze and also Bachelard, and the remarks about compositional practice by Schoenberg, Messiaen and Stockhausen throw light on a significant part of these concepts. A few other concepts, such as *musical time*, *temporality* and *temporalization,* or *rhythmicalization* or even *rhythmic idea*, were conceived of along the thesis as an answer to viewing the compositional process as creative flux.

The concept of emergence is present throughout the argument henceforth presented. Fundamental to Bergson's and Deleuze's notions of time as duration and complexity, the principle of emergence[45] receives here also the influence of Bachelard's account of the *instant,* and is therefore elaborated in the context of the rhythmicality of our musicality. Bergson develops a notion of duration that may be understood ontologically as the *beingness of being*, that is, as the being in its becoming, in its process of being.[46] Emergence thus occurs as a moment in this process in which a concrete, real temporal datum that comes from the world, and is shared among everything, is actualized *in us*.

Deleuze, on the other hand, presents the notion of temporal complexity. In it, the being builds and discovers itself ideally, amongst the concreteness of things and the generality of concepts.[47] Thus, it could be said, there is in us a concrete time that emerges from the world, and successive levels of distance and proximity from this concreteness and the generalization that emerges from our understanding. Moreover, these levels are marked by temporal definitions, by instants, whose emergence ruptures the all-embracing continuity of our beingness. The instant here, represents a creative punctuation, a rhythmic irruption. On this, Bachelard says that

> pondering life in midstream, in its growth, in its ascent, we could of course always show, with Bergson, that the words before and after serve merely as reference points, for between past and future an evolution can be traced that seems continuous by virtue of its general success. However, if we move into the domain of abrupt mutations, where the creative act takes place at one stroke, how could we fault to acknowledge that a new era always opens up through the irruption of an absolute? For every evolution — to the extent that it is de-

[45] Emergence is central in theories of integrative levels and of complex systems. An emergent property of a system is one that is not a property of any component of that system, but is still a feature of the system as a whole. In art, the concept of emergence is used to explore the origins of novelty, creativity, and authorship. See, as reference: Mark A. Bedau, "Weak Emergence," in J. Tomberlin, ed., *Philosophical Perspectives, Mind, Causation and World*, Vol. 11 (Malden, Ma: Blackwell, 1997), 375-399. See also: Valentine Moulard-Leonard, *Bergson-Deleuze Encounters…*, 5.

[46] Henri Bergson, "The Idea of Duration," in *Time and Free Will: An Essay on the Immediate Data of Consciousness* (New York: Dover Publications, 2001), *passim*.

[47] Deleuze, *Difference and Repetition*, 216.

cisive — is punctuated by creative instants.[48]

Emergence is thus circumscribed by duration, complexity, and rupture; necessary aspects, I argue, of the idea's rhythmicality. As their emergence is co-related and interdependent, emergence in itself is manifold.

I have started from this broad concept of emergence in order to develop the notion of musical creativity. This is necessarily a temporal datum, because, following Bergson's reasoning, there is no creativity but inside a given duration, which is always dynamic and heterogeneous and acts on us, as on nature, as a vital, fundamental force. The heterogeneity and dynamism of this duration are yielded to rhythmicalization according to the action of idea and understanding. These two, I suggest, are the main rhythmicalizing agents that structure temporal complexities, by acting in a constant creative movement between the experience of the concreteness of things and the virtuality of concepts. When the object of musical representation — the musical piece — is identified with these notions, we discover that our most day-to-day musical experiences are a direct answer to our lives, to our perception and understanding of the world, so that a musical representation mirrors our lived time, including the time yet to come, which is emergent from our relationship with things.

The notion of rhythmic idea I propose is aligned, in this sense, with the criticism implicit in the Deleuzian confrontation of the classic Aristotelian model of genera and species,[49] "where a concept-genus is divided according to the difference of contrasting attributes; [in which] the difference of being *rational*, for example, divides the genus *animal* into human and non-human species."[50] This criticism targets the understanding that thought is inevitably limited, or at least delimited, by a pervasive self-contained rational function that makes it impossible to access difference but by means of the identity of the concept.[51] The problem here consists in that the difference that exists outside the concept, being truly external to the identity of the concept as a principle, would be inevitably and paradoxically condemned into non-being. Deleuze's critique indicates, otherwise, that the difference that exists outside the concept is indeed not only accessible but stands, necessarily, as the means for our capacity of understanding, the reason of our inquiries and doubts, the eternal moving force of our creativity.

With this in mind, I have indicated here, preliminarily, certain potential levels of temporal complexity, always presenting musical composition as its own process of creation or of *conformation* to these levels. So it becomes possible, as will be seen, to converse with broader aesthetical notions, such as that of originality. An original piece of music testifies

---

[48] Gaston Bachelard, *Intuition of the Instant* (Evanston: Northwestern University Press, 2013), 9.
[49] See Deleuze, *Difference and Repetition*, 38ff.
[50] Melissa MacMahon, "Difference, Repetition," in *Gilles Deleuze: Key Concepts* (Durham: Acumen, 2005), 45.
[51] That is, difference in itself, including its potential becoming or coming into being.

to a given original rhythmicalization, a new blend of temporal perception and cognition. An original piece of new music is inevitably particular, individual, and deterritorialized.[52] It faces the originality of the present time, its first performances, its new audiences, and opposes the process of generalization, and therefore of conceptuation, validation and assimilation — it resists being tamed, a process that affects over time all musical works and gives origin to the notion of repertory.

This way there are more or less original pieces and, at the same time, any musical piece has a certain level of originality and particularity, which is the reason for its expressivity, as well as some degree of cultural and historical committedness, reason for its interpretability. So that expressivity and interpretability are functions of the potential levels of temporal complexity in a musical composition. A musical piece might be said to be *in transit*, rhythmically, between both realms: between what is determined and what is not; between the individual and the collective. Principles such as coherency, centripetal forces (as Schoenberg understood),[53] and linearity of direction in a piece are ruled by forces and by needs of interpretation that emerge from a given historical and cultural context, in a direct answer to these forces and needs in order to assure the communicability of the piece. Musical analysis in general, which is prevalently motivated by an interpretive orientation, often operates in a search for this communicability and generally does not take into account the study of musical expressivity, which for obvious reasons is subject of musical composition as discipline. Many interpretative and many expressive means are necessary for composing music, always having in mind that 'to compose' has here a broad sense: the musical piece is composed by expressive and interpretative traits, and the one who is interested in music, in any way — either by writing, listening, performing, criticizing, analysing pieces of music, etc. — inevitably participates in its compositional processes by *sowing them*, so to say, with his own expressive and interpretative intensities. My approach will be that of integrating both notions, by considering that in any musical study there is a rhythmical relation one must contemplate, at different levels and intensities, between the communicability and the originality of the musical piece.

Seen from the perspective of the concept of originality, expressivity, and interpretability are implicit, deeply and mutually, in the compositional process. They manifest a relation of continuity and of necessity. Composition is a signifying process that happens in a kind of 'semiotical mobility'. In this dessertation, I try to indicate expressive and interpretive

---

[52] This is the sense conveyed by Deleuze in *A Thousand Plateaus*, when he says for instance that "maximum deterritorialization sometimes starts from a trait of content and sometimes from a trait of expression; that trait is said to be 'deterritorializing' in relation to the other precisely because it diagrams it, carries it off, raises it to its own power. The most deterritorialized element causes the other element to cross a threshold enabling a conjunction of their respective deterritorializations, a shared acceleration." Gilles Deleuze and Felix Guattari, *A Thousand Plateaus*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 2005), 142.

[53] Michael Chernin, *Schoenberg's Musical Imagination* (Cambridge: Cambridge University Press, 2007), 66.

musical orientations, fundamental in their complexity and dynamics, which are installed during the compositional process of the musical forms as they are finally presented in a musical piece. That is, that compositional choices in a piece comprise not only of expressive but also of interpretive factors. In this, musical expression and interpretation are compound in their mutual interactions, expanding or contracting their natures, according to perceptual and intellectual conditions: the amount of reiteration, or the amount of newness that is included in the process. This allows considering, as a unified whole, both the study of the musical form and of the intellectual and emotional substance that relates to it.

So, as mentioned, it is formed, musical composition is a process of temporal structuring formed expressively and interpretively, by the dynamism and heterogeneity of a fundamental creative force — *duration*. Enlarging Schoenberg's own approach to the matter,[54] I identify this process as a complex temporal flow that emerges in a continuous way from the concreteness of the things and from our understanding of them. Experience itself seems to be dependent on this: a world of generalization only would be utterly indistinct; a world entirely of particularities would be completely distinct at each moment, and thus unrecognizable. Musical composition takes form as its own becoming, as a hybrid process of conceptualizing and concretization, of concentration and dispersion, of temporal contraction and expansion. Amid the dynamism of the cognitive process, the composition continuously becomes musical in its emergence.

This thesis deals therefore with notions of time and of music, approaching their intersection[55] as a way of being and a way of knowing.[56] There is music, and hence musical time, only as an overlap between being and knowing. In discussing this intersection, a new approach to rhythm becomes feasible, in which rhythmic phenomena are seen, beyond the processes of quantitative subdivision of time, as processes from which different temporal qualities are derived. In this perspective, rhythmic phenomena are contemplated in a way that transcends the structure of a musical piece; they are structuring musical processes that musicalize the human time, the quotidian temporal experience of all of us. Therefore, to investigate musical time means to look into the intersection between being and knowing — and here returning once again to Bergson's and Deleuze's philosophies of time —, both as an experience of memory that is turned towards the known, and as an experience of imagination that is cast into the unknown. This approach requires, though, a more profound dive into the contemplation of its object, a gaze that is less pragmatic and more

[54] According to Carpenter and Neff, Schoenberg, in his later years, took the idea to be the art work, the entity itself. As they explain, Schoenberg at that point considers "the totality of a piece as the idea: the idea which its creator wanted to present." However, they argue that "for want of better terms, Schoenberg says, he is forced to define the idea more narrowly, as the way balance in a work is restored. The idea thus has to do with the total dynamics of the work." Schoenberg, *The Musical Idea* …, 1.

[55] *Intersection* means the simultaneity of several 'cuts', involving two of more delimitations.

[56] I assume here that our temporal experience is totally based on how we are by means of our knowledge and on how we know by means of what we are.

open to the new, that goes into details about problems that are less obvious to musical theory. Indeed, the investigation of this intersection asks for an unusual effort of concentration and, especially, for an open imagination to solutions of difficult empirical validation.

I seek to progress through these empirical difficulties by proposing fundamental temporal notions that might be reflected on both composition and musical representation of a musical piece. These notions refer simultaneously to a 'temporalizing construct', carried out by sensibility, and to a 'spatializing re-construct', accomplished by understanding. In other words: the superimposition of an a-symbolic time (and thus immeasurable and incomprehensible) over another time that symbolizes itself by means of a process of continually emptying things of their concreteness and duration. I put forward that the more spatialized, the more detemporalized comes to be the internal time of a composition and of a musical representation, the emptier they become of the concreteness of things and of their concomitant duration: routines are fixed, formalized, and delimited; qualities are defined, generalized and conceptualized.

As will be seen, rhythmical ideas are something like consolidations of certain levels of temporal complexity that become present in a composition or in a musical representation. These mirror the temporal complexity of the world, such as we feel directly from our daily life — in the wind blowing through tree leaves or in streaming water, in days going by, in the speed of engines, etc. It is this broader temporal complexity of life that moves us and directs us towards composition and, thus, towards musical representation. This means that the perception and knowledge of this complexity is reflected directly on our musical life, not because there is an exclusively human capacity of perceiving and conceiving musically, but rather because there is a musicality that comes from life.

It was from the concept of musicality that I have evolved the notions of dramatic and lyrical time. As mentioned, the connotation of the word dramatization here is quite particular. While dramatization "is … the name that Deleuze gives to the model of thought that he presents [following Nietzsche] as an alternative to the system of representation through the concept";[57] for me it refers to a temporal *path* linked to or *oriented towards* the notion of identity of the concept, a path which can be however temporally expanded or contracted. I suggest that dramatization compounds representation, that it is a part of representation. Still inspired by Deleuze's philosophy (as he says that to be creative one needs to be transgressive), rather than opposing dramatization to representation in music, it would be of substance (now inspired by Bergson) to conceive an integral temporal system, internal to representation, which expands and contracts, freely, according to our freedom.

Thus I suggest another path of creativity, which one might call *lyricization*. Here I quote Stockhausen's account of the context for the term:

[57] MacMahon, "Difference, Repetition," 45.

> It must now be clear that points [groups and masses] can be determinate, variable, or statistical. That points being determinate can be in a development, points being variable can also be in a development, and points being statistical can equally be in a development. That points being determinate can also be in sequence; points being in sequence can also be in moments; etc. This order of three times three terms: points, groups, masses; determinate, variable, statistical; sequential-forming, development-forming, moment-forming — is an order in which every term can be combined with every other term. And what this is ultimately leading to is not that one way of forming is avoiding other ways of organization, but can be combined with all other methods. As I said, once we reach statistical ways of controlling it does not mean we forget about determinacy or directionality or variability, just as once we attain the lyric, we don't ignore the dramatic. Rather, what we are striving to reach is a universal conception, within which we may move in different directions from work to work and within individual works, but having all the possibilities of organization available to us in every composition.[58]

In music, in order to be creative, it is not only against identities that we need to be transgressive. We also have non-thematic processes; we have all sorts of discontinuities. So, *lyricizing* would be a way of acting that is even more complex temporally than dramatizing. Lyricism is offered as a depth of representation — a different, more open kind of representation — which, instead of reflecting the identity of concept, actually operates by reflecting its deconstructive aspects: the many ways the concept becomes another thing than itself, or engenders another thing from itself, or yet manages relations between identical or different things.

The *dramatic*, as I see it in the wake of Stockhausen, has the sense of a musical narration, of recovering, by means of understanding and also of memory, the direct and concrete experience of reality, the experience that takes place through the senses. The dramatic has a sense of girding, of focusing, that gives the products of sensibility a historical, cultural direction. In other words, the direct experience of reality is dramatically carved into a block, and thus may be shared and interpreted. This way, communication is condemned to a certain degree of imperfection, to a want of interpretation, of dramaticism, that only the direct experience of the thing would be able to purge. However, since the direct experience of reality is individual, unique and irreparable, and since understanding happens ideally in a process of shared interpretation of the reality, it seems mandatory to admit an irreconcilable internal tension between the individual (the sensible) and the social (the understanding); an actually expressive tension, between oneself and the *possible other*, a tension that could be taken — perceived and felt, contemplated and understood —, as the necessary inner power and sense of art.[59]

---

[58] Stockhausen, *Stockhausen on Music...*, 61.

[59] About this Deleuzean notion, Joe Hughes points out that, "the world without others is the world of schizophrenic depth, the primary order of *The Logic of Sense*, the transcendental sensibility of *Difference and Repetition* in which every encounter takes the form of a 'slap in the face.' It is a 'harsh and black world without potentialities or virtualities.' It is this situation which made genesis, or the escape from being, necessary. By the end of the genesis however we now live a world *with* others." Thus Deleuze describes the Other: "Around each object that I perceive or each idea that I think there is the

The *lyrical* means an approach to the concreteness of the now, of the present, whereas the dramatic means a removal from this concreteness towards the development of a fitting past or future, of a *fictional space*, even in case it is based on a concrete experience. We know that a remembrance is a remembrance, and that to remember yesterday does not take us concretely to the past: the concreteness of memory is the act itself of remembering, and not the remembrance that is installed in it. Our remembrance, in this case, is a fiction, a *happened* happening into the now. When the happened and the will-happen are projected here and now over our experience, we will say that the lyricalness of the now becomes dramatized, by taking different degrees of removal from its concreteness. *Lyricizing* is however geared by a force of unfoldment and opening of new meanings, of 'metaphorizing,' of vagueness and indeterminacy, which faces the diversity and multiplicity that one observes everywhere directly from the concreteness of things, in their becoming. Music is formed by several levels of dramatization and lyricization, of temporal approaching and removal, and this is the reason, it seems, for the diversity of musical time seen in different musical styles throughout history.

Besides, musical lyricalness and dramaticism may be considered as well from the point of view of an applied musical energetics, in the sense presented by Ernst Kurth, who claims that a melodic line is a sonic externalization of a psychic energy vector, powered by a *creative Will*. For Kurth, a given melody should be conceived in terms of kinetic energy, representing the quintessential embodiment of one's psychic energy.[60] Now, contemplating for a moment the compositional domain of musical temporalizations, it will be possible to enlarge Kurth's views on musical energetics, which are based on melody and polyphony, to the other dimensions of music. This renders feasible the observation of a flow of expansive and contractive temporal complexities, not only in the mind but also reflected on the surface of a musical piece. This is easy to demonstrate when we consider that, temporally, polyphony is more complex than homophony; that harmonic spectra (pitches and timbres) are more complex than melodic spectra (regular pulses and rhythmic patterns); that sound masses are more complex than groups of figures or delineate musical gestures; that any kind of rhythmical irregularity (and also polyrhythms and changeable tempos) is more complex than rhythmical regularity; that fast movements are more complex than slow movements; that *accelerandos* are more complex than *rallentandos*; or that textural densification is more complex than rarefication, etc. All in all, the sonic materiality of music is to be considered a psycho-acoustic datum that reflects, by means of a complex net of temporal articulations and durations of relative speed and regularity, the rhythmicality of the compositional process.

---

organization of a marginal world, a mantel or background, where other objects and other ideas may come forth in accordance with laws of transition which regulate the passage from one to another." Gilles Deleuze, *The Logic of Sense* (New York: Columbia University Press, 1990), 304-306 *apud* Joe Hughes, *Deleuze and the Genesis of Representation* (London: Continuum, 2008), 153.

[60] Lee A. Rothfarb, "Introduction," in Ernst Kurth, *Selected Writings*, ed. Lee A. Rothfarb (Cambridge: Cambridge University Press, 1991), 24. See additionally, Lee A. Rothfarb, *Ernst Kurth as Theorist and Analyst* (Philadelphia: University of Pennsylvania Press, 1988).

A 5000 Hz pulse is more complex than a 0,0005 Hz one, just because the agility of the first induces us to consider it more from the perspective of duration than of pulsation. Sound is only a band of speeds, situated for humans between 20 Hz and 20 kHz (an elephant may hear infra-sounds, but cannot hear above 8 kHz; a bat hears ultra-sounds, 20 to 120 KHz and above).[61] Thus it is possible to conceive that musical composition operates, on a musical piece, a sort of temporal *folding* of the apparently more rhythmically complex over the less complex.

Musical representation is the representation of a given musicality, which, in its turn, is a particular conformation of the rhythmical complexity in a musical phenomenon. This rhythmical complexity, this rhythmicality, must be understood as a function of its intensity, of the multiple dynamics that emerge from its power of articulation and continuity given, in the compositional process, to some musical piece. Therefore a musical representation is a representation of this intensity, of a kind of rhythmical conformation between *being*, understood as a duration, as a force of continuity or an expressive flow, and *knowing*, now understood as a rupture of the duration, as an instant, a force of articulation, of cesura and delimitation, as the 'reach' of interpretation and, therefore, of understanding.

It is not that the musical piece determines musical representation, it is rather the rhythmicality that the piece embraces to provoke in us a given sensation or attention that we consider musical.[62] The musical piece is thus a function of a purer, more direct, representation of what we are and know. Continuity and articulation — which are the immanent traits of being and knowing — are blended in virtually endless formulations amidst this rhythmicality.[63] These formulations, as changeable and ephemeral to our understanding as they are innumerable, are the rhythmical ideas. There are more or less complex rhythmical ideas: those with an articulative potential are more precise and delimited than those oriented to the continuity. It is important to recall that rhythmic ideas live in an ever-changing creative interval: they are actually the orientation of this change. It is also important to recall that we do not live one idea at a time, but several in simultaneity, ideas that come not only from the present moment, but from all that was lived, as memory, and from all time to come, as desire or imagination.

In this wider context, musical representation always refers to a given social, historical and shared context, and to a given individualizing, transcendental force. This is why music demands, compositionally, distinct aesthetic attitudes of its agents. What I mean by this is that music history is permeated by movements of confrontation or conformation towards the new and the old, the original and the ordinary, the known and the unknown,

---

[61] H. Raghuram and G. Marimuthu, "Donald Redfield Griffin: the discovery of echolocation," in *Resonance*, vol. 10, no. 2 (February 2005): 23.

[62] Consider Bergson's discussion on *the diagram* in Bergson, *Matter and Memory*, 97ff.

[63] On musical continuity and articulation see Benjamin Boretz, Harold Olivier, Barney Childs and Charles Whittenberg. "The Nature of Continuity in Music", in *Proceedings of the American Society of University Composers* 6 (1971): 49-82. Also Christopher Hasty. "On the Problem of Succession and Continuity in Twentieth-century Music," in *Music Theory Spectrum* 8 (1986): 58-74.

as much as towards problems and solutions, risk and comfort, the learning and the learned, apprehension and the apprehended, surprise and routine, etc. All these things are poured into the musical representation giving form to musical pieces that we love or reject, as we respond to the prompting of our most basic impulses, to the constitution of our being, to our intellectual and psychological formation, as much as to the reach of our perception and the quality of our attention to life.

After all, we may infer that difference in itself, a totality, is missing from music, and argue that this is so because it is absent from the temporal complexity of our subjectivity, from our power of engaging into creative instants. But how would it be possible?

I argue that music is real, though it is real *to us* only in that that it is also a reality *in us*. This is so because music is to us according to the vital relation we potentially establish with the totality of nature and according to the quality of this link. Music is not a gift, but a conquest: music is impossible to the 'demusicalized' being, to the one who is arrested by a profound immobility, who repeats senselessly, who by the force of his cognitive habits avoids reflecting the expressiveness of difference in itself.

Our sensible and intellectual experiences orient us musically along distinct levels of temporal complexity — levels established amidst the infinitude of time, of its incommensurability.[64] This orientation is directly related both to the process of forming conceptual identities, which is a process of temporal delimitation and emptying; and to that of annihilating the generality of the concept. As said, the main content of these suggestions is to address the problem of musical composition, which is thus seen as directly related to the subjective play of temporal complexities and complexes, reflecting the temporal complexity of life. This is the content of the rhythmicality of the idea: any given compositional process is marked by the formalization of determinate levels of temporal complexity, which, instead of being formed hierarchically by fixed proportions, are rather always moving, expanding and contracting temporally, generating zones of intersection.

---

[64] In the sense that is reached by Jorge Alejandro Flórez Restrepo from his comparison between *duration* and *elán vital* in Bergson and *Dasein* em Heidegger: "It has been characterized that whereas Bergson emphasizes past, Heidegger emphasizes future. However, Bergson's concept of *elán vital* is as important as past. […] Perhaps, the major difference between both systems is located in their method; Bergson bases his philosophy in a system of images, in which man is seen simply as a center of action, like any other being but with more or less capacity of action; moreover duration is not only human duration, but also take important part in a general evolutionary process. Heidegger's main aim is a fundamental ontology which he grounds in an existential analytic; he distinguishes between an authentic and inauthentic existence. Therefore, Bergson privileges past because it explains thus the capacity of action through habits and recollections; Heidegger privileges future because it gives to Dasein the possibilities to be an authentic being. However, any of them rejects the other modes of time; rather they unify them in duration or temporality respectively. *The most evident difference is* [my stress] that Heidegger just accepts a finite time manifested by the finitude of Dasein, whereas Bergson accepts the infinitude of time." Jorge Alejandro Flórez Restrepo, "Durée and temporality: a defense of Bergson's conception of time," *Discusiones Filosóficas* 16, nº 27 (July-December 2015): 60.

[65] Deleuze and Guattari, "Introduction: Rhizome," in *A Thousand Plateaus*, *passim*.

So I propose a categorization, a schematic approach to the problem of musical composition, but only as a means of trying to capture moments of musical sense, similarly to the photographer who captures a moment of life visually. Once related to the compositional process as a creative experience, the rhythmical categories proposed are better described as transcendentally empirical, instead of *a priori*. They must be conceived merely as *rhythmical images*.

I offer my categorization as investigative clues around and among which one may find richer images of duration. I propose that the whole process of musical composition is set within a (rhizomatic) interplay of temporal forces.[65] This interplay is what I call the *compositional temporal agent*, a power that manifests ever-new temporal formulations. The temporal agent, as a creative force, generates rhythmic ideas, which are diverse in function depending on their level and depth of compositional complexity. Rhythmic ideas, on their side, rhythmicalize our fundamental musicality, by promoting a rhythmicalization process that is responsible for the configuration of creative possibilities at each compositional level.

All these notions were elaborated, from the start, on the grounds of Schoenberg's notion of musical idea, which, I argue, deserves to be enlarged, expanded by the assumption of a simple complementary orientation, which, although important, seems to remain undiscussed: in order to be creative and free, the musical act depends evenly on coherent and non coherent powers. Consequently, the musical idea and the whole set of compositional procedures directly and indirectly related to it, must not be delimited exclusively by coherence, balance, and regularity, but extrapolated, otherwise, by the interplay of coherent and non-coherent lines, of balance and unbalance, regularity and irregularity. This extrapolation — and not one's orientation by means of coherent constructs — is exactly what we generally mean by musical time.

To study musical time thus depends on contemplating this extrapolation, its rhythmical forces. In this way, we may eventually find that the rhythmicality of musical time mirrors the rhythmicality of time as time is broadly experienced. Here, I argue, both senses of time are actually united by their rhythmicalization: by the way we live and share, sometimes shallowly, sometimes in depth, our impressions about the world that constitutes and the world that defies our intimacy.

IV – CHAPTERS

Summarizing, the structure of this thesis is as follows.

In the first chapter, I present a short literature review in what concerns, first of all, the notion of time in general. This notion and its problematics is initially discussed from the point of view of Kant's *Critique*, further elaborated by taking into account the Bergsonian *durée*, that of the unified and interpenetrative flow of time, as well as the Deleuzian *idea*, of idea as complexity and multiplicity, to be finally considered from the perspective of

Bachelard's notion of *instant*. The chapter also introduces a discussion about a variety of important aspects of musical time, as the analytical and compositional treatment of articulation and of continuity forces forming a musical piece; the notion of musical idea taken from Schoenberg and Stockhausen; and finally the perspective of musical time as time represented.

In the second chapter, I discuss the rhythmicalization process that grounds our musicality, returning to some aspects of Bergson's and Deleuze's philosophies of time, and assuming that our musicality is according to the rhythmical constitution of a fundamental duration, of a temporal domain, which becomes musical by means of the intertwining of ideal encompassing creative forces, namely by means of the encounter of the powers of sensibility and understanding.

The third chapter deals with what I understand as a first compositional domain, with the grounding expressive and interpretive compositional forces of musical composition. Here I reinforce the argument that the musical compositional process is effectively installed in the emergence and constitution of a first rhythmicality. I suggest that amidst the full-blown duration of our musicality certain rhythmic orientations emerge that are responsible for the manifestation of distinct musical times. The emergence of these musical times testifies for the action of a first rhythmicalization, of that full-blown duration, so that they constitute fundamental compositional forces, primary rhythmical ideas. Through these, I suggest, the totality of the compositional process and of its representation is built, in increasing levels of complexity, towards a final metric image and therefore a spatial detailing. Yet, this chapter introduces the notion of a second and a third compositional domains, of musical temporalities and of musical temporalizations, respectivelly. These are seen as rhythmicalizing the grounds of the compositional process by infusing it with new expressive and interpretive forces. Here I briefly argue that new levels of temporal complexity emerge as we advance in the compositional process.

A glossary and three appendixes, containing some intermediate cathegories of rhythmic ideas, a comprehensive analytical example of a compositional application of them, and a temporal diagram are provided in order to facilitate the understanding of new terms and the reading of the general theoretical arc as provided. These appendixes also provide elements for future analytical work on some middle-ground rhythmical ideas and their application. The hypotheses argued in this thesis should be understood as images intended to the intellectual contemplation of musical artworks as creative forces, in their relations to the individual in his intimacy and to the whole society. I provide these images as a contribution to the evaluation of musical ideas along the process of creating music and also of the intricate meanders of their presentation and representation, both as analytical, interpretative tools, and an impulse for the emergence of new musical ideas.

Chapter one
Review of Literature

On thinking

All our cognition starts from the senses, goes from there to the understanding, and ends with reason, beyond which there is nothing higher to be found in us to work on the matter of intuition and bring it under the highest unity of thinking.[1]

I. Kant

On Kantianism

One of the most original points of Kantianism is the idea of a difference in nature between our faculties. This difference in nature appears not only between the faculty of knowledge, the faculty of desire and the feeling of pleasure and pain, but also between the faculties as sources of representations. Sensibility and understanding differ in nature, one as a faculty of intuition and the other as a faculty of concepts. Here again Kant opposes both dogmatism and empiricism which, in different ways, both affirmed a simple difference of degree (either a difference in clarity, based on the understanding; or a difference in liveliness, based on sensibility).[2]

G. Deleuze

---

[1] Kant, *Critique of Pure Reason*, 415.

[2] Gilles Deleuze, *Kant's Critical Philosophy*: *the doctrine of faculties* (London: The Athlone Press, 1984), 22.

In this chapter, I present (i) a reading of the general notion of time, taking this notion from Kant and going through Bergson's, Deleuze's and Bachelard's philosophies; (ii) a notion of musical time and discussing it according to a 'language of the musical time' — a given vocabulary related to time in music, that imprints *spatial* terminology on our thinking about music — and its rhythmicality; (iii) Schoenberg's and Stockhausen's notion of musical idea; and finally (iv) a notion of represented musical time, in which I take into account historical concerns.

My initial point is: the fact that we have been preponderantly *thinking* traditional or innovative musical repertoires has led us to approach music primarily from a spatial-motional perspective, that is, from the standpoint of form, and therefore with a tendency to exclude both the notions of time and of musical time proper. My suggestion is that it would be true that new, 'continuative musical formulae' (as complementary and alternative to the articulative ones) would lead us to take into account another, important kind of musical cognition, the one that emerges preponderantly from *sensibility*. This involves first of all Kant's propositions about the nature of sensibility and understanding as much as the multiple interfaces between these, regarding that that may be perceived and known and how this happens: in Kant one finds an extensive philosophical tradition gathered on the subject. Moreover, it is his arguments that are echoed in the notion of musical idea by Schoenberg, which is the basis of the elaboration of the notions of musical ideas here developed. However Schoenberg's musical idea not only engages in dialogue with the Kantian notion of *aesthetic idea*, as "the representation of the imagination which induces much thought, yet without the possibility of any definite thought whatever,"[3] but it is also in sharp contrast, in its aesthetical and temporal orientation, to the conventional notion of musical idea present in the "Baroque and Classical tradition of understanding and describing a musical work in rhetorical terms."[4] Schoenberg's notion is clearly innovative and points to the future: it is compositional rather than analytical and is committed to the fertile compositional problems of 20th-century post-tonal music. This Kantian-Schoenbergian notion has received comments, criticisms, and extensions throughout the last century, more evidently, in philosophical terms, from the perspectives of Bergson, Deleuze and Bachelard; and, in music, in the context of Stockhausen's compositional practice, which, by focusing on the problem of time in sound matter in his studies about electronic music, also allows for an ampler approach to the notion of musical idea as Schoenberg previously intuited.

Indeed, from Kant's epistemological discussion on, we are provided with two modes of

[3] Kant, *Critique of Judgement*, 314.
[4] Boss, *Schoenberg´s Twelve-tone Music…*, 10.

cognition, one that is sensible and provides us intuitions, and another that is intellectual and provides us understandings. When understanding prevails over sensibility, we are inclined to compose (and also to describe and listen to) music in terms of multiple strata of significance and chronological references, because in order to understand we have to 'cut' music into pieces, to articulate it, and also to consider it teleologically, causally and orderly, in response to certain rules of succession. When thinking prevails, we are inclined to set hierarchical rules both in 'paradigmatic and syntagmatic' musical axes — in other words, both in harmonic and melodic musical domains. Our musical understanding, as Deleuze indicates,[5] operates exactly in this way, by 'spatializing' in order to measure so to reach a necessary generalisation and hierarchisation.

Most probably, the opposite prevalence of sensibility over understanding would lead us to the ubiquity of pure temporal musical descriptions. When sensibility prevails, I believe, music should be described in terms of 'complexities of transitoriness,' of qualitative changes — similar to the tensional and dynamic nature of our psychological states. Clearly, we cannot divide our feelings into pieces. All we can do is to live them fully and integrally because, otherwise, we would end up developing a neurotic disorder. All the same, the 'sensitive musical sense' cannot divide the flux of music into pieces. In order to sense music (in Kantian terms but following Bergson's, Deleuze's and Bachelard's orientations) we have to *intuit* in order to know the duration of music in its evolutive process, even when it comprises many simultaneous subroutines. Sensibility *temporalises* in order to grasp the flux of transformations of the thing, and to allow for the experience of the 'here and now,' which is necessarily singular, particular. The work of sensibility in music is oriented to the singular musical datum, which cannot be actually repeated, which cannot compose a generality, which is only possible, according to Deleuze, as *another path* that calls upon *another* philosophy.[6]

Therefore I reason that music is always oriented — and in a rhythmical way — by understanding and sensibility, as cognitive faculties. Musical features are *always* both *in space and motion* and *in duration*, that is, they pulse between two modes of cognition. The frequency of change between these modes and their mutual rhythmical influence set the actual meaning of musical space-motion and musical duration. These meanings interchange and exchange both, *from the inside out*, the space-motion and duration of musical forms perceived at the surface of a musical piece; and, *from outside in*, the space-motion and duration of more abstract musical notions, those which address music also in terms of conceptual and ideal forms. It is regarding interchange and exchange of meanings that Deleuze, commenting on Bergson's theses about movement and duration, argues that

[5] Gilles Deleuze, *Cinema I: the movement image* (London: Continuum, 1986), 10.
[6] Deleuze, *Cinema I …* , 7.

> in a sense movement has two aspects. On one hand, that which happens between objects or parts; on the other hand that which expresses the duration or the whole. The result is that duration, by changing qualitatively, is divided up in objects, and objects, by gaining depth, by losing their contours, are united in duration. We can therefore say that movement relates the objects of a closed system to open duration, and duration to the objects of the system which it forces to open up. Movement relates the objects between which it is established to the changing whole which it expresses, and vice-versa. Through movement the whole is divided up into objects, and objects are re-united in the whole, and indeed between the two 'the whole' changes. We can consider the objects or parts of a set as *immobile sections*; but movement is established between these sections, and relates the objects or parts to the duration of a whole which changes, and thus expresses the changing of the whole in relation to the objects and is itself a *mobile section* of duration. Now we are equipped to understand the profound thesis of the first chapter of [Bergson's] *Matter and Memory*: (1) there are not only instantaneous images, that is, immobile sections of movement; (2) there are movement-images which are mobile sections of duration; (3) there are, finally, time-images, that is, duration-images; change-images, relation-images, volume-images which are beyond movement itself…[7]

Both Bergson and Deleuze built up their philosophies antagonising Kant's grounding epistemological difficulties of the powers of sensibility and intellect. Whereas Deleuze expands and complements Bergson's philosophical concepts, it would be Bachelard to offer a critical evaluation of Bergsonism, reconsidering it from a Kantian perspective.

A discussion on musical time may be introduced, after all, by initially considering the language that is used to address, in musical theory and musical interpretation in general, the description of creative musical processes. I suggest that our interpretative practices in music are generally guided by at least two main temporal attitudes: a formal or empirical, and a psychological or metaphysical one. In addition, we can also discuss the influence a temporal language of musical interpretation may have on a temporal language of musical expression. I assume that the temporal language of musical interpretation is oriented by musical concepts, by *immobile sections* in Deleuze's jargon, and consequently by musical understanding. Moreover, I assume that the temporal language of musical expression is, in turn, guided by musical ideas, by *mobile sections of duration*, which make sense, as it were, in our musical sensibility.

A musical concept is any musical aspect that, born and reborn directly from concrete experience, acquires by force of habit, by repetition, the character of generalization. It is a musical concept that is present when we talk about the best voice-leading between two chords, or that the perception of timbre is prevalent over that of the melodic line. A musical concept thus encompasses innumerous cases of a given practice, so that there is a concept only when musical interpretation is fixed, when there is a normalization oriented towards the understanding and its communication. For its part, a musical idea is complex and moving. It always has the force of a surprise, or a special case, of a unique solution. It

[7] Deleuze, *Cinema I …*, 11.

is the case, for instances, of a distinct rhythmical character of a piece, of a melodic liquidation that is impeccable and therefore unique. The musical idea is the mark of innovative and purposeful creative processes.

Musical concepts and musical ideas then intercept one another within a common musical creative field we usually call *the* musical piece. This interception happens to be motivated, it seems, by historical and cultural constructs. The language of musical time is a social phenomenon, as any language. As we have seen, in Western culture, the musical language of time is split at first into two main strands: a spatial-motional and a durational.

Next, I address the notion of *rhythmicality*, that is, the rhythmical sense of musical time. This notion, which actually occupies the whole thesis, is initially contextualised having in mind the previous discussion on musical time as space and duration and their necessary dialectical relation.

Some important notions on the very constitution of the music idea and the musical idea represented are then approached. These problems are initially illuminated by the contrasting points of view of Schoenberg and Stockhausen as well as by contrasting historical perspectives on musical representation.

I – TIME

Kant: the nexus of sensibility and understanding

In his *Inaugural Dissertation: on the form and principles of the sensible and intelligible world* (1770), Kant took the "task of providing certain foundations for the Newtonian worldview without appealing to the method of mathematics."[8] According to Paul Guyer,

> the metaphysical possibility as well as the epistemology of Newtonian absolute space remained a mystery until Kant solved it in his dissertation by arguing that the human mind possesses two fundamentally distinct capacities of sensibility and intellect [...] and that the existence of a unique and absolute space — and time — in which all the objects of our experience can be ordered reflects the inherent form of our capacity for sensible experience itself. Thus Kant took the fateful first step of arguing that the possibility and indeed the certainty of the spatiotemporal framework of Newtonian physics could be secured only by recognizing it to be the form of our own experience, even though this meant that the certainty of the foundations of Newtonian science could be purchased only by confining them to objects as we experience them through the senses — "appearances" or "phenomena" — rather than those objects as they might be in themselves and known to be by a pure intellect — 'noumena.'"[9]

Henry E. Allison explains that "the centerpiece of" Kant's Inaugural Dissertation "is the

---

[8] Paul Guyer, "Introduction: The starry heavens and the moral law," in *The Cambridge Companion to Kant and Modern Philosophy* (Cambridge: Cambridge University Press, 2006), 9.

[9] Guyer, "Introduction: The starry heavens...," 10.

distinction between sensibility and understanding as two cognitive faculties."[10] We read in the third paragraph of Kant's dissertation that

> *Sensibility* is the *receptivity* of a subject by which it is possible for its representative state to be affected in a certain way by the presence of some object. *Intelligence*, rationality, is the *faculty* of a subject by which it is able to represent to itself what by its quality cannot enter the senses. The object of sensibility is sensuous; what contains nothing but what is knowable by the intellect is intelligible. In the older schools the former was called *phenomenon*, the latter *noumenon*. To the extent to which knowledge is subject to the laws of sensuousness it is sensuous; to the extent to which it is subject to the laws of intelligence it is *intellectual* or rational.[11]

From this Kant concludes that "things which are thought sensitively are representations of things as *they appear* (*esse rerum representations, uti apparent*), while things which are intellectual are representations of things as *they are* (*sicuti sunt*)."[12] He says that

> Since whatever is in sensuous knowledge depends upon the subject's peculiar nature [...] it is plain that what is sensuously thought is the representation of things as they appear, while the intellectual presentations are the representations of things as they are.[13]

All in all, Kant describes cognition as split into two powers: *sensibility* (which is the cognitive power in us that enables objects to be given) and *understanding* (the cognitive power in us that allows objects to be thought) — a division that still orients us here, since the proper *rhythmical sense*, so to say, of the rhythmic idea depends on it.

In the preface to his *Critique of Pure Reason* (1781), Kant explains his first intuition about the problem of knowledge and representation:

> up to now it has been assumed that all our cognition must conform to the objects; [i] but all attempts to find out something about them a priori through concepts that would extend our cognition have, on this pre-supposition, come to nothing. Hence let us once try whether we do not get farther with the problems of metaphysics by assuming that the [ii] objects must conform to our cognition, which would agree better with the requested possibility of an a priori cognition of them, which is to establish something about objects before they are given to us. [iii] This would be just like the first thoughts of Copernicus, who, when he did not make good progress in the explanation of the celestial motions if he assumed that the entire celestial host revolves around the observer, tried to see if he might not have greater success if he made the observer revolve and left the stars at rest. Now in metaphysics we can try in a similar way regarding the intuition of objects. If intuition has to conform to the constitution of the objects, then I do not see how we can know anything of them a priori; [iv] but if the object (as an object of the senses) conforms to the constitution of our faculty of intuition, then I can very well represent this possibility to myself. Yet because I cannot

[10] Henry E. Allison, *Kant's Transcendental Deduction: an Analytical-Historical Commentary* (Oxford: Oxford University Press, 2015), 43.

[11] Immanuel Kant, *Dissertation on the Form and Principles of the Sensible and the Intelligible World*, trans. William J. Eckoff (New York: Columbia College, 1894), 50.

[12] Allison, *Kant's Transcendental Deduction...*, 54. Also Sebastian Gardner, *Kant and the Critique of Pure Reason* (London: Routledge, 1999), 18.

[13] Kant, *Dissertation on the Form ...*, 50-51.

> stop with these intuitions, [v] if they are to become cognitions, [vi] but must refer them as representations to something as their object and determine this object through them, I can assume either that the concepts through which I bring about this determination also conform to the objects, and then I am once again in the same difficulty about how I could know anything about them a priori, or else I assume that the objects, or what is the same thing, the experience in which alone they can be cognized (as given objects) conforms to those concepts, in which case I immediately see an easier way out of the difficulty, [vii] since experience itself is a kind of cognition requiring the understanding, whose rule I have to presuppose in myself before any object is given to me, hence a priori, [viii] which rule is expressed in concepts a priori, to which all objects of experience must therefore necessarily conform, and with which they must agree. As for objects insofar as they are thought merely through reason, and necessarily at that, but that (at least as reason thinks them) cannot be given in experience at all — the attempt to think them (for they must be capable of being thought) will provide a splendid touchstone of what we assume as the altered method of our way of thinking, namely that [ix] we can cognize of things a priori only what we ourselves have put into them.[14]

There are here some important matters: (i) that through concepts, and concepts only, we cannot extend our knowledge of things; (ii) that things are informed by or conformed to our knowledge of them; (iii) that *eventually* what seems to be a property of an object of perception is actually a condition of the subject of perception; (iv) that things, as objects of senses, are to us according to the constitution of our intuition (and not *yet* of our cognition); (v) that intuitions become cognitions, that is, that things are firstly conforming we are, and consequently conform we know; (vi) that intuitions are representations; (vii) that experience itself is a kind of cognition *requiring* the understanding; (viii) that the rule of the understanding is expressed in concepts; (ix) and that we can cognise of things only what we ourselves have put into them.

Firstly, if it is true that intuitions become cognitions (and, by the same token, that experience is a kind of cognition which requires understanding), would it not be true as well that both experience and understanding *change* around this becoming? If so, could it not be argued that concepts may become intuitions fixing our perception in certain specific orientations? Secondly, if it is true that we can cognise in things 'only what we ourselves have put into them,' would it not be true as well that our cognition *depends on* our creative power (our freedom) so much that things, as they are cognised by us, may change accordingly and conform to this power? If so, could we not claim that what we put into the things is not *another thing* (an intellectual one) but rather our power *per se and only,* the reach of our attention, our capacity of making a way through nature? That is why I favour Bergson's, Deleuze's and Bachelard's reasoning over Kant's temporal arguments.

For Kant, sensibility and intellect "function as independent sources of cognition, and have quite different objects: sensibility represents the world of sensible objects in space and time; these being nothing but subjective 'forms of sensibility' (a new doctrine of

[14] Kant, *Critique of Pure Reason*, 111.

Kant's), and intellect represents non-sensible, 'intelligible' objects."[15] There would be thus two main 'modes' of representation, a sensible and an intellectual one. However, Kant does not suggest how reasoning *ignites*, whether primarily by means of sensibility or intellect.

Kant's view at this point, it has been argued, suffers "from a fatal weakness, resulting from the sharpness of its separation of sensibility and intellect."[16] This seems to be the Kantian *Critical* problem: since Kant could not admit the object of sensibility as the source of the object of intellect and vice versa, there should be a 'third' cognitive power, a dialectic one, able to guarantee the *nexus* of sensibility and intellect (or understanding), and their relative objects, intuitions, and concepts. However, since this nexus in itself could still be taken as the source of its own objects, a whole cognitive system should inevitably be illuminated or grounded by a deeper and bounding power, a fundamental, Platonic-like, *a priori* source of knowledge and truth: the goodness, the pure reason.

For Kant "without sensibility no object would be given to us, without understanding no object would be thought. […] It is, therefore, just as necessary to make our concepts sensible, […] as to make our intuitions intelligible."[17] I must agree on this necessity, however disagreeing when Kant declares that sensibility and understanding "cannot exchange their functions."[18] Kant says that sensibility and understanding are isolated faculties. Moreover, he proposes as a proof of that the negative example of 'intellectual intuition.'[19] Kant claims that "it is evident that we do not have intellectual intuition. For a subject with intellectual intuition, there would be no room for sense experience, since to merely think of an object would be to be presented with it; nor would it be necessary to apply concepts to objects, since each given object would be grasped immediately in its full individuality."[20] But is not that exactly what happens to us all the time, in a way, when we think about or we sense something?

When we simply think, we are presented with the object of our thought. Otherwise, when we merely sense (something), we are also presented with all its potential generalisations. There are, therefore, I argue, 'levels of intuition' as well as 'levels of conceptualisation,' whose absolute ones would stand for, as Kant says, the cognitive power or *mind of God*.

So I venture to say that instead of seeking epistemological orientation from a pure, *a priori* power of reasoning, we should initially investigate the rhythmical nexus that *links* sensibility and understanding, by claiming (still supported by Kant) that these are distinct modes of cognition, however never completely isolated, neither completely indistinct (as

[15] Gardner, *Kant and the Critique …*, 19.
[16] Gardner, *idem*, *ibidem*.
[17] Kant, *Critique of Pure Reason*, 204.
[18] Kant, *idem*, 193.
[19] Kant, *Critique of Judgement*, 228-230, 233-234.
[20] Gardner, *Kant and the Critique …*, 69.

a form of intellectual intuition).[21] Instead, they are in a constant, complex lively interaction. They change one another, reciprocally, according to our actual necessities. We may observe this rhythmicality drawing our cognitions sometimes nearer our body, sometimes farther from it. We can understand our intuitions of space and time, of the world around us, mentally detaching ourselves from their direct experience, however still experiencing their intensities in our imagination and memory. We can imagine new things, places and times, new possibilities, recall past ones. Memory and imagination are, clearly, important powers of representation; their work has much to do with the intellectual work of conceptualisation. On the other hand, as previously indicated at the start of this chapter and to be later detailed, we can also intuit concepts, new and old ones, for the same reason. To say the least, our modes of cognition are not fixed, but *fluctuate*, expanding and contracting towards the non-determination of the here and now, or the determination of *the other*, of the past and the future, in different levels of complexity.

Kant asserts that space and time provide the sensible form of experience, declaring as well, according to Gardner, that space and time "are not features of absolute reality but only *forms of sensibility*, […] and that everything that has spatial and temporal properties are mere appearances as opposed to things in themselves."[22] Kant points this out by arguing that "only by means of such pure forms of sensibility [space and time] can an object appear to us, i.e., can it be an object of empirical intuition. Hence space and time are pure intuitions containing a priori the condition of the possibility of objects as appearances, and the synthesis in space and time has objective validity."[23]

In arguing about the nature of the musical representation of time, this assumption has only limited importance. Independently of what time actually is, a feature of absolute reality or not, it is easy to agree that time is *also* a form of sensibility; but not only, as it is also a form of understanding. This view receives its support in Bergson's concept of duration, when he says that

> may we not conceive, for instance, that the irreducibility of two perceived colors is due mainly to the narrow duration into which are contracted the billions of vibrations which they execute in one of our moments? If we could stretch out this duration, that is to say, live it at a slower rhythm, should we not, as the rhythm slowed down, see these colors pale and lengthen into successive impressions, still colored, no doubt, but nearer and nearer to coincidence with pure vibrations? In cases where the rhythm of the movement is slow enough to tally with the habits of our consciousness — as in the case of the deep notes of the musical scale, for instance — do we not feel that the quality perceived analyzes itself into repeated and successive vibrations, bound together by an inner continuity? […] We must insist [… that] the duration lived by our consciousness is a duration with its own determined rhythm, a duration very different from the time of the physicist, which can store up, in a given interval, as great a number of phenomena as we please. […] In reality there is no one rhythm of du-

[21] Gardner, *Kant and the Critique …*, 19.
[22] Gardner, *idem*, 65.
[23] Kant, *Critique of Pure Reason*, 145.

> ration; it is possible to imagine many different rhythms which, slower or faster, measure the degree of tension or relaxation of different kinds of consciousness and thereby fix their respective places in the scale of being.[24]

So there must be, as Bergson says, different kinds of consciousness, qualified by many different rhythms as they measure the tension or relaxation of our being. Our state of awareness does not always present the same intensity, as things do not do as well.

Everything changes for us, externally and internally, and it is the form of this change, that captivates our attention the most. A *form of change* is never like a shape. It is more like a complex flow that is at once (re)-sensed and (re)-conceived at each moment of our lives. Accordingly, intuitions and concepts are never temporally fixed — if they were their sense would be eternally allocated inside and outside us linking different unconnected times. Intuitions and concepts are more like *creative moments* that emerge in a freer way within a vital duration that connects them, in response to the calling of the present situation. The behaviour of this form of change is not chaotic but rhythmical — it has a temporal orientation. Thus, everything that changes for us, externally and internally, is the essential source of all that we call musical.

Another important point of dispute comes from Kant's claim, that "the subject forms its sensible representations passively, through being 'affected' [… while] the faculty of understanding, which produces concepts and applies them to objects, is by contrast active and spontaneous,' meaning that it is not caused to do what it does."[25] As Kant clarifies, "let us give the name *sensibility* to our mind's *receptivity*, [i.e., to its ability] to receive presentations insofar as it is affected in some manner. *Understanding*, on the other hand, is our ability to produce presentations ourselves, i.e., our spontaneity of cognition."[26]

We are not passively affected by the world, I think, because we have the choice of being differently affected in different circumstances. Otherwise, we are not always actively applying sense to things, neither our sense making is always spontaneous. We present all sorts of cognitive habits and vices. We are free, surely, but not always in the same way. Sometimes our concepts are immature and false, and wrongly defined because of a lack of attention.

The *Transcendental Doctrine of Elements* of Kant's *Critique* is divided into three main sections. Its 'Transcendental Aesthetic' part is concerned with the power of sensibility (which deals with intuitions); the 'Transcendental Analytic' part is concerned with the power of understanding (which deals with concepts and their principles); and the 'Transcendental Dialectic' section is concerned with the power of reason, and deals with what Kant calls *ideas*. In a certain way, I align my main hypotheses with those included in Kant's aesthetic and analytic parts of his *Critique*. However, and this is also crucial in the current

---

[24] Bergson, *Matter and Memory*, 203-207.
[25] Gardner, *Kant and the Critique …*, 67.
[26] Kant, *Critique of Pure Reason*, 106.

discussion, ideas are here viewed mostly according to the Deleuzian perspective, as 'diverging and decentering'[27] powers of multiplicity and 'eternal newness.'[28] For Deleuze, there is a 'broken connection of the faculties,' which nevertheless does not interrupt the temporal flux of the Idea. Indeed, Deleuze argues that there is

> a serial connection between the faculties and an order in the series. But neither the order nor the series implies any collaboration with regard to the form of a supposed same object or to a subjective unity in the nature of an 'I think'. It is a forced and broken connection which traverses the fragments of a dissolved self as it does the borders of a fractured I. […] Kant was the first to provide the example of such a discordant harmony, the relation between imagination and thought which occurs in the case of the sublime. There is, therefore, something which is communicated from one faculty to another, but it is metamorphosed and does not form a common sense. We could just as well say that there are Ideas which traverse all the faculties, but are the object of none in particular. Perhaps, in effect, as we shall see, it will be necessary to reserve the name of Ideas not for pure *cogitanda* but rather for those instances which go from sensibility to thought and from thought to sensibility, capable of engendering in each case, according to their own order, the limit — or transcendent — object of each faculty. Ideas are problems, but problems only furnish the conditions under which the faculties attain their superior exercise.[29]

Deleuze's notion of idea differs from Kant's in the sense that, even though still deeply concerned with the powers of sensibility and understanding, it does not regard them as working as a coherent power. They are never really detached from the experience of things — because for Deleuze, deeply guided by Bergson's insights, sensibility deals with more than intuitions (in a Kantian sense), transcending them so that the proper emergence of thought, and thus the totality of our representations, are constantly influenced by them. They are also never detached from understanding — because, working as a negative force of amplification of thought, ideas are constantly *calling* thought to delve into the unknown. Deleuze's idea is amid intuitions and concepts as principles, working, as it were, as a marvellous transcendental vehicle of sense, and hence implying a Transcendental Empiricism.[30]

Thus, I assert, sensibility and understanding are not isolated realms, but linked by means of a rhythmic manifold of psychic intensities, which conditions the rhythmicality of our cognition in response to our freedom, and sets the reach of our knowledge. For our capacity of reasoning is not given *a priori*, but *emerges creatively* from life as life is, once we see ourselves emerging from it. There seems to be a strong connection — a deep sense — between everything and us. A sense I dare say, with Bergson, that is grounded by a profound *creative evolution*. This connection leads us to believe that our musicality is deeply rooted in nature; that we respond to it primordially and necessarily. That we cannot perceive or understand the world without music.

---

[27] Deleuze, *Difference and Repetition*, 288.
[28] Deleuze, *idem*, 315ff.
[29] Deleuze, *idem*, 183.
[30] Levi R. Bryant, *Difference and Givenness* (Evanston: Northwestern University Press, 2008), 8.

Bergson: the mobility of things and of things in us

Bergson's revolutionary conception of the mobility and intersection of things and of things in us, evolved, as Moulard-Leonard indicates, from his

> novel concept of duration (*la durée*), the nexus of his 'new philosophy,' and his innovative methodology of 'metaphysical pragmatism,' [which has] challenged our thinking of time, and continue to defy any established idea or philosophical system concerning consciousness, perception, memory, knowledge, life, evolution, reality, causality, and freedom.[31]

This thesis is illuminated by Bergson's philosophy, or better, by his philosophical attitude as he targets the epistemological problem raised by Kant and presents a still fresh and new solution: there is no actual distinction between things in themselves and things in us, except, firstly, for the fact that the thing conceived, that is, represented, is always defined by a certain degree of attention, which varies in each experience in response to both the contingency of the experience itself (its singularity) and the presentness of the experience to us (its newness); and secondly by the fact that we potentially find the whole past psychologically projected on each new experience. Therefore, the thing is unique not only as it is, since it is also unique as it is to us, to the self. There is an eternal and crucial difference between the datum that comes from our sensibility and the one that comes from our understanding, a difference though that is never defined once and for all. This difference changes: it *advances* and *recedes* temporally, as it were, and is oriented, as Deleuze indicates,[32] sometimes to the problem, sometimes to its solution. It is sometimes powered by a dive down into the now in the pursuit of the new aspect, the novelty, at times by edifying transcendental principles.

Bergson explains this continuity by saying that there is no actual distinction between body and mind;

> in fact, the humblest function of spirit is to bind together the successive moments of the duration of things, if it is by this that it comes into contact with matter and by this also that it is first of all distinguished from matter, we can conceive an infinite number of degrees between matter and fully developed spirit — a spirit capable of action which is not only undetermined, but also reasonable and reflexive. Each of these successive degrees, which measures a growing intensity of life, corresponds to a higher tension of duration and is made manifest externally by a greater development of the sensor-motor system.[33]

This general orientation comes to us, in distinct and complementary ways, from four main sources. Firstly from Bergson's doctoral thesis, the *Essai sur les données immédiates de la conscience*, published as a book in 1889, shortly after its academic submission, as *Time and Free Will*;[34] from *Matter and Memory*, which appeared in 1896; also from the

---

[31] Moulard-Leonard, *Bergson-Deleuze Encounters…*, 2.

[32] Deleuze, *Difference and Repetition*, 198.

[33] Bergson, *Matter and Memory*, 221.

[34] Henri Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness* (New York: Dover Publications, 2001).

article "Introduction to Metaphysics",[35] first published in 1903, in the *Revue de métaphysique et de morale*,[36] and later in 1934, as the centrepiece of *The Creative Mind*[37] (*La Pensée et le Mouvant*), and finally from *Creative Evolution*,[38] that appeared in 1907.

Bergson's *Time and Free Will* addresses the problem of free will. In it, Bergson contended against Kant's argument that our choices are traceable to conditions determined by the empirical character (the sense self) rather than the intelligible character (the thinking self). In his *Critique of Pure Reason*, Kant declared that

> every human being has an empirical character for his power of choice, which is nothing other than a certain causality of his reason, insofar as in its effects in appearance this reason exhibits a rule, in accordance with which one could derive the rational grounds and the actions themselves according to their kind and degree, and estimate the subjective principles of his power of choice. Because this empirical character itself must be drawn from appearances as effect, and from the rule which experience provides, all the actions of the human being in appearance are determined in accord with the order of nature by his empirical character and the other cooperating causes; and if we could investigate all the appearances of his power of choice down to their basis, then there would be no human action that we could not predict with certainty, and recognize as necessary given its preceding conditions.[39]

Bergson's response to Kant's notion of freedom aims to dispel the 'confusion of duration with extensiveness, of succession with simultaneity, of quality with quantity.'[40] For Bergson, we can speak of the experience of freedom, thus of creativity, only in the context of a dissociated time freed from mechanistic causality: time must be dissociated from space. His overall argument is that 'inner duration is a qualitative multiplicity,' that 'in the external world we find not duration but simultaneity.'[41] Being temporal, our consciousness operates as a *vital duration* in which there is juxtaposition of events — a qualitative as opposed to a quantitative multiplicity, which is always homogeneous and can be enumerated.[42]

Bergson illustrates his point of view discussing the psychic intensities of hope and sorrow in terms of time, with reference, respectively, to the future and to the past. He also con-

---

[35] Henri Bergson, *An Introduction to Metaphysics* (Indianapolis: Hackett Publishing Company, Inc., 1999).

[36] Leonard Lawlor and Valentine Moulard Leonard, commenting on the *Introduction*, point out that "the first of Bergson's works to be translated in many languages, this article not only became a crucial reading guide for Bergson's philosophy as a whole, but it also marked the beginning of 'Bergsonism' and of its influence on Cubism and literature. Through Williams James's enthusiastic reading of this essay, Bergsonism acquired a far-reaching influence on American Pragmatism". Leonard Lawlor and Valentine Moulard-Leonard, "Henri Bergson," *The Stanford Encyclopedia of Philosophy* (Winter 2013 edition), http://plato.stanford.edu/archives/win2013/entries/bergson.

[37] Henri Bergson, *The Creative Mind* (New York: Dover Publications, 2010).

[38] Henri Bergson, *Creative Evolution* (New York: Cosimo, 2005).

[39] Kant, *Critique of Pure Reason*, 541.

[40] Bergson, *Time and Free Will*, xx.

[41] Bergson, *idem*, 226-227.

[42] Bergson, *idem*, 76-77.

siders aesthetic feelings as intensities. He suggests that we find pleasure 'mastering the flow of time and of holding the future in the present,'[43] because this allows us to prioritise emotional intensity over reflective consciousness. For Bergson, reflective consciousness "delights in clean cut distinctions, which are easily expressed in words, and in things with well-defined outlines, like those which are perceived in space."[44]

Bergson's response sets the context and definition of time in the present discussion. Time is opposed to space and spacial enumeration. It is qualitative, a vital duration, and must be discussed in terms of intensities. This notion points to a necessary and complementary collaboration, in us, of two temporal paths: one which is *turned to* or *tuned by* continuity, and another which is oriented by all sorts of discontinuities, outlines, articulations.

As important is Bergson's theory of pure perception, laid out in the first chapter of *Matter and Memory*, which tries to show that — beyond both realism and idealism — our knowledge of things, in its pure state, takes place *within* the things it represents. In order to show this, Bergson claims that all we sense are actually images. Bergson employs the notion of image to demonstrate — in opposition to realism and materialism — that there is no hidden power in matter able to produce representations in us. He also criticises idealism to the extent that Kantian idealism attempts to reduce matter to the representation we have of it. For Bergson, images are less than a thing but more than representations. This point is crucial because the *more* and the less, in this case, indicates that representations differ from images *by degree*.

Bergson re-attaches perception to the real. The image of a material thing *becomes* a representation, which is always virtually in the image. In any case, there is a transition from the image as being in itself to its being for the self, but perception adds nothing new to the image; in fact, it subtracts from it. Representation is hence a reduction or, in my terms, a *contraction* of the image.[45] Conscious representation would thus result from suppressing that that has no interest for bodily functions and maintaining only that that does interest them. The conscious perception of a living being therefore exhibits a 'necessary poverty.'[46]

In his *Introduction to Metaphysics*, Bergson extends this notion by offering three insights to help us think about duration and therefore about qualitative multiplicities.[47] The first, implies that duration is memory. Bergson says, "no two moments are identical in a conscious being."[48] Memory conserves the past and this conservation does not imply that one experiences the same (re-cognition), but *difference*. The second insight implies that "pure duration excludes juxtaposition, reciprocal exteriority and extension."[49] And the

[43] Bergson, *Time and Free Will*, 12.
[44] Bergson, *idem*, 9.
[45] Bergson, *Matter and Memory*, 38.
[46] Bergson, *idem*, *ibidem*.
[47] Bergson, *The Creative Mind*, 164-165.
[48] Bergson, *idem*, 164.
[49] Bergson, *idem*, *ibidem*.

third, implies that no image can represent duration: an image is immobile, while duration is 'pure mobility.'[50] We can always insert breaks into a spatial line that represents motion, but motion itself is indivisible. Now we can clearly see that duration consists of two characteristics: unity and multiplicity.

We also learn from *The Introduction to Metaphysics* that intelligence consists precisely in an analytic, external, hence essentially practical and spatialized approach to the world. Bergson argues, there is a certain form of finalism that would adequately account for the creation of life *while* simultaneously allowing for the diversity resulting from creation. It is the Bergsonian idea of an original vital principle. Bergson argues that the true obstacle to the knowledge of the absolute consists in the idea of disorder. All theories of knowledge have in one way or another attempted to explain meaning and consistency by assuming the contingency of order. For Bergson asks: 'order is certainly contingent, but in relation to what'?[51] His answer consists in showing that it is not a matter of order *versus* disorder, but rather *of one order in relation to another*. In summary, the real is essentially positive, it obeys a certain kind of organisation, namely, that of the qualitative multiplicity.

All in all, Bergsonism is deeply influential in respect to our creativity (freedom), to the important distinction assumed between time and space and their many levels of cognitive interaction, to the unity and multiplicity of our vital duration, and to guidance on the important principle of qualitative multiplicity.

Deleuze: the broken connection of the faculties and the mobility of the Idea

The main sources of interest on Deleuze's view in this concern are his writings on *Nietzsche* (1965), presented as a chapter in *Pure Immanence: Essays on a life* (2001), *Bergsonism* (1966), *Difference and Repetition* (1968), *Spinoza: Practical Philosophy* (1970), *The Logic of Sense* (1969), *Cinema I: the Movement-Image* (1983), *Cinema II: The Time-Image* (1985), and *A Thousand Plateaus* (1987).[52]

Deleuze argues that our subjectivity emerges from distinct, 'differential passive syntheses'[53] — as, for instance, the synthesis of habit, in which, according to him, unconscious (passive) temporal contractions would invariably aim to extract from a unified series of experiences only that that is to be retained *within* the habit. Passive syntheses would be

[50] Bergson, *The Creative Mind*, 165.

[51] Bergson, *Creative Evolution*, 232.

[52] Gilles Deleuze, *Pure Immanence: essays on a Life* (New York: Zone Books, 2001), *Bergsonism*, trans. H. Tomlinson and B. Habberjam (New York: Zone Books, 1988), *Difference and Repetition* (New York: Continuum International Publishing Group, 2004), *Spinoza: practical philosophy*, trans. R. Hurley (San Francisco: City Light Books, 1988), *The Logic of Sense* (London: Continuum, 2010), *Cinema I: the movement-image* (London: Continuum, 1986), *Cinema 2: the time-image*, trans. Hugo Tomlinson and Barbara Habberjam (London: Continuum, 2011), and, with Felix Guattari, *A Thousands Plateaus*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 2005).

[53] Deleuze, *Difference and Repetition*, 90ff.

differential because 'pervasively serial':[54] there would always be a series of distinct current temporal contractions demanding permanent renewing. They would hence form and conform many a distinct level, and relate all series one another in a same body, as well as one another bodies. Subject formation would thus take place, so argues Deleuze, within a pre-individual transcendental 'differential field'[55] formed by all these levels together. Subjects would be thus constituted as (rhythmical) *patterns* of manifold serial syntheses that, by being 'folded'[56] on themselves by themselves, would give rise to self-awareness. This differential, immanent and genetic position — in which the abstract thing does not explain but rather must be explained — Deleuze calls 'transcendental empiricism':[57] that is, instead of looking for eternal or universal essences one should concentrate on the singular conditions under which *something new* is produced. For Deleuze, the main object of philosophy is finding and fostering conditions for creative production.

The bases of our creativity are thus to be found among many and differential 'temporal foldings.' Now, it is evident how Deleuze complements Bergson's intuitions about the differential plenitude of a vital duration, by arguing that this plenitude is actually *formed* by a number of unconscious sub-routines. These routines are the reason for our rhythmicality, so that the Deleuzian differential, transcendental, pre-individual field takes actually the form of our musicality. This field can only happen within an all embracing temporal multiplicity, within the constant return of the past; within the *durée réelle*.

In *Bergsonism*, Deleuze approaches virtuality and multiplicity, principles that will ground later works, chiefly, *Cinema I* and *II*. Of importance here is the fact that Deleuze openly adopts the Bergsonian notion that the virtual is fully real, that it is the condition for the real experience. The virtual, however, has no identity: the identity of the subject, as well as the identity of the object, are actually virtual products constantly emerging and merging within a differential (transcendental) field which thus cannot condition any rational experience. The virtual, consequently, can only condition the genesis of real experience (which may be actualised or not). Deleuze also adopts from Bergson the notion of multiplicity, or *the multiple*, as substantive, pointing out the possibility of distinguishing types of multiplicities — as does Bergson in *Time and Free Will* by distinguishing qualitative and quantitative multiplicities.

The condition of being unique is fundamental in Deleuze's philosophy of difference. In it, difference is no longer subordinated to identity, but to the notion of multiplicities as substantives. *Difference and Repetition* thus re-evaluates the Kantian philosophical project

---

[54] Deleuze, *Difference and Repetition*, 183.
[55] Deleuze, *idem*, 336.
[56] See Gilles Deleuze, "The Fold," in *Baroque Topographies: Literature/History/Philosophy*, Yale French Studies 80 (1991): 227-247. Also, for further considerations on the matter, see Gilles Deleuze, *The Fold: Leibniz and the Baroque* (London: The Athlone Press, 1993), 23-26.
[57] Deleuze, *Difference and Repetition*, 180.

in two ways: on the one hand, Deleuze wants to provide a view of the genesis of *real* experience — that is, the experience of a concretely existing individual here and now — rather than Kantianly seeking the conditions of a possible experience; on the other hand, in order to respect the demands of a philosophy of difference, the genetic principle must be itself a differential principle.

Deleuze's philosophy of difference thus supports the notion of a creative field that *acts through* many faculties according to different levels of temporal complexity. According to this notion, the genetic principle, the condition for the manifestation of the individual subject and object, acts within a transcendental multiplicity, so that the real experience, the here and now, is constantly musicalised in us, by us.[58]

This image is developed in *A Thousand Plateaus*. There Deleuze presents his *geology of morals*, by discussing the beginning of non-human expressivity: everything, even inorganic matter, expresses itself. The main context of this discussion is that if we lose the capacity to be moved by nature we lose something, the sense of otherness. We will find that for Deleuze, inorganic tridimensional, voluminous, form of expression becomes unidimensional organic DNA, in plants and animals, and consequently able to be excited — it becomes sensibility. Informed by this strong expressive connection, we may return to the Bergsonian notion of sensibility, according to which we will see ourselves complementing the here and now, at each moment, with the whole of our past, including our inorganic past, life as a whole.

So, later in *The refrain*, Deleuze presents a definition of rhythm, stating that

> every milieu is vibratory, in other words, a block of space-time constituted by the periodic repetition of the component. Thus the living thing has an exterior milieu of materials, an interior milieu of composing elements and composed substances, an intermediary milieu of membranes and limits, and an annexed milieu of energy sources and actions-perceptions. Every milieu is coded, a code being defined by periodic repetition; but each code is in a perpetual state of transcoding or transduction. Transcoding or transduction is the manner in which one milieu serves as the basis for another, or conversely is established atop another milieu, dissipates in it or is constituted in it. The notion of the milieu is not unitary: not only does the living thing continually pass from one milieu to another, but the milieus pass into one another, they are essentially communicating. The milieus are open to chaos, which threatens them with exhaustion or intrusion. Rhythm is the milieus' answer to chaos.[59]

Rhythm is thus more than linear patterns of vibrations submitted to a certain rule of proportions; it is a temporal complexity, multiplicity, folding, because "each code is in a perpetual state of transcoding or transduction." Rhythms dissipate, cross other rhythms; they are also open to chaos, to indetermination.

---

[58] See Daniel Smith and John Protevi, "Gilles Deleuze," in *The Stanford Encyclopedia of Philosophy* (Winter 2015 edition), http://plato.stanford.edu/archives/win2015/entries/deleuze.

[59] Deleuze and Guattari, *A Thousands Plateaus...*, 313.

Bachelard: the newness of the instant

Finally, there is Bachelard's notion of the *newness of the instant*, his care for the creative power of discontinuity, which offers a clear opposition to Bergsonism. In *Intuition of the instant* (1932), Bachelard opposes Bergson's philosophy of duration and Gaston Roupnel's 'philosophy of instant.'[60] For Bachelard the true time of creation is the instant, because "if we move into the domain of abrupt mutations, where the creative act takes place at one stroke, how could we fault to acknowledge that a new era always opens up through the irruption of an absolute? For every evolution — to the extent that it is decisive — is punctuated by creative instants."[61]

For Bachelard, if continuity (in which every moment is related to each other) were the essential quality of time, true creation would be impossible. Consequently, the essence of time must be the instant, which, severed from the past, would allow for something new to happen. So for him, anything new carries or creates a necessary temporal rupture. However, although controversial concerning the assumption of this rupture as the essence of time — because time is not made up by newnesses only, since it is also made up by the whole past —, Bachelard's doctrine of the instant points out more importantly the essence of the creative act, which belongs to time as much as the sterile one does. These aspects of Bachelard's thought are presented mostly in *Dialectic of Duration* (1936)[62] and *The Philosophy of No: a philosophy of the new scientific mind* (1940).[63]

It is notable in *The Philosophy of No,* that for Bachelard, as for Kant, intuitions have to be *worked*. Bachelard's conception is however unique because temporal discontinuity is for him an essential condition of this work. Bachelard's interpretation of temporal discontinuity makes for formal conditions to intuit phenomena as *complex*.[64] It is only on the basis of this complexity that (the scientific, rational) mind can be creative in the way he proposes.

Bachelard argues in favour of a sharp separation between the powers of understanding and sensibility, which means, in Kantian terms, advocating for a clear separation between mind and body. Although controversial, this sort of separation permits the developing of a notion of time that gives *freedom* to the power of understanding in all circumstances: the mind is thus free to act without the constraints placed on it by the objects of perception, and by the apparent continuity of their existence.[65]

---

[60] Gaston Roupnel, *Silë* (Stock, 1927).

[61] Gaston Bachelard, *Intuition of the Instant* (Evanston: Northwestern University Press, 2013), 9.

[62] Gaston Bachelard, *Dialectic of Duration*, trans. Mary McAllester Jones (Manchester: Clinamen Press, 2000).

[63] Gaston Bachelard, *The Philosophy of No: a philosophy of the new scientific mind* (New York: Orion Press, 1968).

[64] Many of the following contextualization of Bachelard's thought comes from David Webb, "Gaston Bachelard: Construction and temporal discontinuity", in *Foucault's Archaeology,* Edinburg University Press, May 2013.

[65] Bachelard, *Intuition of the Instant*, 19.

The reaction of Bachelard against Bergson's conception of time as a continuous duration led him to propose that if time were really fully continuous, the instant would be nothing more than '*une fausse césure*'[66] — a false caesura.

The instant allows Bachelard to suggest that the mind is able to make, to act, an absolute beginning, to break with the past. However, the past *rises up*, as it were, from things themselves, from their substance. Forms of unity, of relation, and of existence that are familiar, that come from our sensible experience, are thus connected. The point of importance here is that a creative mind may indeed find it necessary to escape from such forms; a negation to which Bachelard refers in *La Philosophie du non*, which aims at defining a new position that is not determined by the conditions that precede it. However, even if not determined as such, the new position is said to be not entirely unrelated to its past: each act is not a completely new beginning because the new position is actually part of a *constructed series* — it obeys a certain order, and therefore a certain rationality. This is the work of mind: the mind *thinks against something* and, in doing so, it separates itself from its own past, even though always in a way that is informed by the past it opposes. The past is thus a background against which the act of mind occurs; however we have still to ask how the proper act of mind occurs. In order to understand this problem, we must grasp the relation of thought to the history against which it acts.

For Bachelard, the *non* characterises the creative act of the mind, which acts however always grounded in its *own* history. This history does not belong to things though, but to the mind itself (to the virtual, the Idea); it is a *history of images* already freed from the standard forms of sensible intuition. What would be therefore the relation of the present instant to the instants that came before it? Bachelard concludes that this relation is musical, that our being *resonates*, so to say, with the *rhythm of instants*, so that our being has a past in the same way that an echo has a voice.[67]

It means that the more often phenomena are seen in a same, particular way, the more likely they will be seen later in the same way: the rhythm and regularity of the past do not simply reinforce what one perceives; above all, they reinforce the very form of one's intuition. Rhythm and regularity provide a rule that serves as the schema for intuition. The rhythm, or form, or regularity that we find in the past, and which may then be continued in the present, is never — or rarely — unique. In any given example, there is, Bachelard writes, a plurality of rhythms, forms, or regularities that, through a *lack of attention*, we reduce to a single unique form. It is, therefore, by being lazy that we allow the past to shape the present and the future.[68]

Under the sign of determination, it may be that by avoiding looking closely enough, one

---

[66] Bachelard, *Intuition of the Instant*, 18.
[67] Bachelard, *idem*, 52.
[68] Bachelard, *idem*, 52-53.

picks out a particular rhythm or regularity and generalises it too quickly, ignoring other possible rhythms and regularities that *surround*, cross, or lie alongside the first. One's fault is then that of being 'wrongly' fast. It may also be that by not looking closely enough one fails to see that the rhythm or regularity picked out contains within it, in fact, many a variation and nuance that one had initially ignored; that is, there are layers or variations that have been filtered out, leaving something univocal and easily put to work as the form required in the construction of sensible phenomena. One's fault is then that of being 'wrongly' light.

It would be better thus, in this case, to look more closely at the given thing, and so try to discover *something more*, a richness and a complexity that one had failed to notice before. What is sensed at first is a plain rhythm, the one which is straightforwardly, immediately available, however in fact always transversely involved in complex temporal and formal relations with other rhythms. This is the cognitive sense of rhythmicalization: the desire to depart from an intuition, as given in sensibility, leads thinking to modify the rhythm and regularity that gave form to that intuition. Closer attention to a thing or idea will always reveal a greater complexity. Looking attentively at the image and its history *opens* it, allows for something, a part of the complexity of the image to be revealed: concealed rhythms and regularities may be then combined in many new ways, producing a new image.

Thinking, then, addresses itself to the rhythms that give form to intuitions. In addition, the form of an intuition is not limited to its own rhythms, since it is also influenced by (the rhythms of) a manifold of other intuitions. In all of this, the creation made actual in the present instant would not be possible without the complexity that lies concealed for the most part behind phenomena. In fact, one could say that the first achievement of temporal discontinuity, at least for Bachelard, is to serve as a condition for this complexity, which is itself a prerequisite for the construction of new forms of intuition.

Having in mind the complex image of time briefly introduced, now it will be possible to approach, with some advantage, the more specific problem of musical time; initially from the point of view of meaning, by considering how time in music is often conceptually addressed by means of space-motion constructs. This prevalence ends up orienting a whole set of techniques of musical analysis and a lot of the aesthetical discussion in music. Guided by spatial, motional laws, one may easily see himself contemplating music prevalently in terms of shape-forms or routines, instead of in terms of duration. This train of thought has, I argue, a huge influence on the way music is studied and practised nowadays, including on the decision of *which* music must be studied and performed. The new music of our time, in itself in so many ways dedicated to the discovery of new temporal images, is often negatively affected by a theoretical tendency to make spatial references prevail over genuine temporal ones. As result, new music is often peripheral, exceptional and quite specialised. Now, on the other hand, the dramatic temporal structure one observes

reflected in a spatialised musical discourse is not in itself necessarily negative, and still quite necessary. The problem will always be the insistence of contemplating musical time from a unique perspective.

II – MUSICAL TIME

We normally attribute a temporal sense, or temporal meaning, to music guided or supported by a certain temporal language. This works as a way of projecting sometimes innovative, sometimes common-sense temporal conceptions onto our interpretation of a given musical piece.

This scenario is analysed in *The Subconscious Language of Musical Time* by Lewis Rowell, who suggests that

> the metaphors implicit in rhythmic terms and the complex of meanings that gradually [evolve from them] suggest that the language of musical temporality […] [its terminology], is always a relatively late development in [any] language and tends to use existing words in a more specific and limited sense, [becoming] a kind of sublanguage.[69]

An important aspect of Rowell's critique, which is also relevant to the present discussion, rests on his claim that the metaphors implicit in common rhythmic terms are generally expressive of socially grounded temporal preconceptions. Normally oriented by cosmological statements, which were accumulated historically and culturally, these preconceptions seem to be strong enough to define subjective conceptual frameworks and to delimit the individual experience of time. From Rowell's argument, an important nexus can be made between our general representation of time and that of time in music: that the analytically applied language of musical time may be equivalent to the temporal language consciously used to qualify the direct experience of time in general. According to this, individuals *shape* their descriptions of music influenced by a common temporal language, which is thus gradually turned into a technical rhythmic terminology that could be seen as a conceptual interface that reflects broader social traits.[70] The rhythmical meaning of a musical piece — which is, I believe, fundamentally oriented by determinate rhythmic ideas — expresses the link which happens to exist, in different fashions, between our temporal representation of music and of things in general.

It seems thus that clarifying the fundamentals of musical time, its basic predicates, depends, at least initially, on clarifying our rhythmic terminology. On this matter, Cooper and Meyer also argue that indeed

> the development of a fruitful approach to the study of rhythm has been hampered by a failure to distinguish clearly among the several aspects of temporal organisation itself. The re-

[69] Lewis Rowell, "The Subconscious Language of Musical Time," in *Music Theory Spectrum* 1 (1979): 97.

[70] See, as well, Jason W. Brown, *Time, Will and Mental Process* (New York: Plenum Press, 1996).

> sulting confusion has created a correlative ambiguity of terminology. Since clear distinctions and univocal terminology are necessary if the analysis of the rhythmic structure of music is to move beyond […], our first task must be one of definition.[71]

In response to this need of definition, but still oriented by his wider epistemological approach, Rowell proposes an initial thematic organisation of the language of musical time. He presents eight categories of rhythmic terms that reflect a criterion of decreasing generality.[72] Though well defined, Rowell suggests that these categories actually interpenetrate according to the cultural background and the prevalent descriptive motivations of their users.

Musical time as space

In Western culture, the language of musical time has been prevalently influenced by spatial-motional preconceptions. Rowell observes that this tendency of projecting a spatial-motional framework on music is as seminal and ancient in our culture as early Greek musical theory and, in this concern,

> the construction of temporal words from spatial metaphors [in Greek theory] is so prevalent that one is tempted to wonder whether rhythm has anything to do with temporal thinking […]. We, like the Greeks, are still solving for ourselves the paradox of musical motion. Our common sense tells us that we perceive motion in music, but we are not sure whether it is time that moves, the music itself as a whole, or something within the music, or perhaps all of these and more […]. Music's apparent motion is a classic paradox still awaiting solution, if indeed solution is possible. Until then we shall probably continue to depend upon spatial metaphors.[73]

Commenting on the predominance of visual metaphors within Greek philosophical language, Joseph Smith also stresses their influence on traditional Western musicology and its applied spatial-motional terminology, arguing that

---

[71] Cooper Grosvenor and Leonard B. Meyer, *The Rhythmic Structure of Music* (Chicago: University of Chicago Press, 1960), 1.

[72] For Rowell, (i) rhythmic terms are similar or equal to those commonly used in cosmological statements, partially revealing how their parent culture perceives the Universe; (ii) grounded or influenced by cosmological statements, other rhythmic terms develop in three main topics, movement, number and limitation. This suggests that musical time functions as a working model for social time, a controllable sound universe that may be set in motion, measured, or restricted; (iii) this general working model leads to rhythmic terms that are often spatial in origin; (iv) responding to this spatial orientation, other rhythmic terms denote physical gestures, as well as abstract things measured by them, and musical time is thus given a specific quality of motion, direction, extension and weight; (v) in this context, rhythmic terms suggest cultural preferences for specific gestural forms and gestural qualities, such as circularity, linearity, continuity, homogeneity, and reticulation; (vi) from this point, rhythmic terms also may imply an idea of regulation of gestural forms and gestural qualities, as well as the coordination of this regulation among the arts; (vii) in this coordination, important terms of regulation are borrowed from poetry and prosody, though frequently applied differently; (viii) rhythmic terms may hence impose or contain implied (preconceived) aesthetic values, as, for instance, suggesting 'natural' rhythmic designs, or how such designs should be naturally devised and perceived.

[73] Rowell, *The Subconscious Language of Musical Time*, 104.

> in the first paragraph of the Metaphysics, Aristotle claims that sight is the keenest of man's senses, and it is interesting to note that the Greek word, *eidénai*, to know, is derived from a visual word, *eidos*, which means the way a thing looks; and thus its 'essence' [...]. The key to philosophical being from Aristotle through Heidegger is a study of 'phenomena' i.e. what appears-in-light. From Plato to Husserl, the *eidos* of a thing was the starting point to the discovery of essence [...]. From Plato to Aristotle, through phenomenology in its traditional forms, we are dealing almost exclusively with the phenomenon of actual and metaphorical sight, literally dominating what a thing is by how it looks [...]. Even though we no longer bring musical sound under a metaphysical category as in the *ars antiqua*, we still look at it from the category of light and sight, as it were [...]. It was Aristotle who influenced the entire history of classic thought and its linguistic expression. And so Augustine also, though apparently influenced more directly by Christian Platonism, made sight stand for all the senses [...]. From here it is but a step to the confluence of Platonism and Aristotelianism in the 'intuitional' theories of the Middle Ages. An *intuitio* means, of course, insight, literally a looking-into a thing [...]. We would have no musicology, as the knowledge of music, were it not for the development of the visual metaphor in Greek and German philosophy, from which we finally conceive of *Wissenschaft* and thus of *Musik-wissenschaft* as the science of music.[74]

Smith also emphasises the influence of spatial aspects on the constitution of musical notation itself. He argues that the score represents a strong visual determinant from which a specific applied motional terminology naturally emerges. For Smith,

> time, as philosophical and thus also as musical, has been conceived in Western thought as 'extended in space.' We literally draw time out in linear manner, and thus we can measure what Hegel called the successive 'now-points' of a given line of time. It is obvious what western music theory has succumbed to the linear interpretation of time. It has done so more completely than any science, for its musical notation has been literally linear from the start. The entire history of musical notation is one of an uncritical acceptance of temporality as linear, for we literally follow the notes like now-points across a spatially extended printed page.[75]

All in all, spatial-motional metaphors still base many recent, and seemingly innovative, investigative works on musical temporality. An interesting example is Jonathan Kramer's *The Time of Music: New Meanings, New Temporalities, New Listening Strategies*.[76] In it, Kramer aligns himself with the view of the prevalence of linear descriptions of time in our music, observing that these descriptions turn out to be reflected in our compositional and interpretative practices for many centuries, at least from the Age of Humanism to the First World War — a period of time in which Western thought was strongly embedded by ideas of cause and effect, progress, and goal orientation.

Kramer also claims that musical time — its language, so to say — always reflects specific

---

[74] F. Joseph Smith, *The Experiencing of Musical Sound: prelude for a phenomenology of music* (New York: Gordon and Breach Science Publishers, 1979), 47.

[75] Smith, *The Experiencing of Musical Sound…*, 156.

[76] Jonathan D. Kramer, *The Time of Music: new meanings, new temporalities, new listening strategies* (New York: Wadsworth, 1988).

social and cultural contexts; the broader environment, costumes and the like; and, consequently, the thought of its producers and consumers, which seems to be right and aligned with Rowell's thought. The striking novelty of Kramer's analysis resides in his proposition of 'listening strategies': since musical time and its language parallel social time, Kramer suggests that music should be as well culturally listened to, that is, it should be approached by proper interpretative strategies, defined by cultural foundations. He thus proposes a general categorisation of subjective responses, that should be applied to particular musical gestures, responses that may be actualised or not, depending on the degree of awareness (attention), on the general musical knowledge and, again, on the cultural background *in use* during the interpretative act.[77]

Musical temporality and rhythmic terminology, Kramer suggests, should be seen nowadays in accordance not only with the relative temporal linearity (causality, delimitation, flux and univocal direction) observed in traditional musical repertoires, mostly in those identified with tonal common practice, but also with the relative nonlinearity (indetermination, openness, stillness and multi-directionality) perceived on the surface of new musical works.

On this point, his listening-interpretative perspective is remarkably interesting. However, we may say, Kramer's essentialist psychological approach to musical time itself seems to be *blocked* or circumscribed by the very same linear preconception he points out as a limitation to traditional listening strategies. This is because he approaches either musical linearity or nonlinearity addressing, again, their *mobility*, in structural terms.

Kramer's new listening strategies ends up being sorts of motional listening strategies, as they are linked to five motional strategies of composition or musical times.[78] All in all, Kramer's listening and compositional strategies seem an applied system of *musical temporal modalities*, built up in the perspective of the cadential principle of tonal harmony; these modalities being negatively defined by the absence of the goal-oriented temporal characteristics of tonality. This can also be perceived in his use of information-theory, since musical linearity is defined in terms of satisfaction and expectation, in the same way

[77] Kramer's approach indirectly reflects the main agenda of symbolic anthropology: Culture does not exist beyond the self, but rather lies within the self as part of the individual interpretation of the world. People shape patterns on their own behaviors and give meanings to their experiences referring to socially established signs and symbols. Actually, symbolic anthropology claims to analyze how people give meanings to their reality and how this reality is expressed by their cultural symbols. This is exactly what Kramer does.

[78] For him, there is (i) a 'directed linear time,' which is mainly related to tonal music. This time would be always 'in motion' towards a point of closure or resolution. Tonal motion would be just a metaphor applied to the description of tonality and its temporality, but people who have learned how to listen to tonal music would sense constant motion: motion of tones in a melody, motion of harmonies towards cadences, rhythmic and metric motion, and dynamic and textural progression. According to Kramer, tonal music would never be static but always linearly directed towards moments of psychological and material conjunction. A next step towards non-linearity in music would be represented by (ii) a non-directed linear time,' which is the musical time that still moves and is sensed in motion

tonal harmony is commonly addressed. On this matter, Kramer claims that

> although the information-theory applied scientifically to the study of music has been problematic, it does provide a useful aesthetic framework for understanding the listening process [... and] a context for aesthetic understanding of linear musical time [...]. Events can and do imply later events; probabilities do exist for what will follow a given sequence of events. It may not be possible to calculate these probabilities objectively, but we do feel their force. If an event is an outgrowth of previous events, we understand that the music has progressed from antecedent to consequent. The piece moves through time from the music that implies to the music that satisfies (or delays or thwarts) the expectation. This sense of progression — coming from the confluence of several interlocking antecedent-consequent relationships and from a complex interaction of implications and outgrowths that takes place across various durations — is what linearity means: the higher the Markov order, the more pervasive the linearity.[79]

Interestingly, this same aspect of Kramer's ideas is elaborated in Barbara R. Barry's *Musical Time: The sense of order*. Barry explores musical temporality focusing on epistemological issues raised by Schenker, Meyer, Cone, and other European and American scholars for the study of classic repertoire. She proposes a linear tempo-density approach based on information-theory in which the speed at which musical time passes is the speed information is processed.[80] Both Barry and Kramer define musical time having in mind, as it were, a functional conformity between the temporal structure presented at the surface of a musical piece and its perception,[81] notwithstanding their clearly motional or ordered-like analytical approach. The principle of musical motion is actually necessary in this case because, otherwise, the inevitable teleological assumption that sustains Kramer's and Barry's analyses would be inefficient, that is: the assumption that music moves respecting different goal orientations and at different rates; and that the listener — the in-

---

though by a variety of means and with varying degrees of local stability at cadences. For Kramer, this musical time 'carries' its listeners along in its continuum, but they do not really know 'where' they are being led to by each musical phrase or section until their actual conclusion. Kramer also introduces the notion of (iii) 'multiple time,' or multiple directed time, which depends on a 'reordered' underlying linearity that should be sufficiently straightforward and perceptible. In order that listeners experience the reordered linearity, they should be able to understand the 'right' function of a musical gesture even when it occurs in the 'wrong' [*sic*] part of a composition. Next, Kramer proposes (iv) a 'moment time,' which would be the musical time devised in pieces with no fundamental linearity. The music would be markedly discontinuous and there would be no reordering. A work in moment time would not really begin but simply 'start,' as if it has been going on all along and the listener happened to tune in on it. Finally, there would be (v) a 'vertical time,' which is the musical time of works in which the phrase structure does not seem a necessary component of music. The result would be a 'single present' stretched out into an enormous duration, a potentially infinite now, that nonetheless is felt like an instant.

[79] Kramer, *The Time of Music...*, 23.

[80] Barbara Barry, *Musical Time: the sense of order* (New York: Pendragon Press, Stuyvesant, 1982), 165.

[81] It may be for this reason — the necessity of a perceptual functional agreement — that Barry bases her analyses as well mostly on sections of tonal works, primarily on pieces composed by Mozart, Schubert, Beethoven, Brahms, Wagner and Hugo Wolf, except for a brief commentary on serial rhythmic figuration in Anton Webern's opus 21 and 22.

terpreter — makes sense, or not, of this movement. The importance of their interpretation seems to rest however on their defence that musical temporality is at the end determined by the listener's musical ability to process musical information, by his *musical knowledge*, meaning by musical knowledge — and this is important to the discussion here presented — the *awareness of compositional processes*: traditional musical styles are temporally given, because well known by many, but new musical styles should be *conquered*, so to say, by innovative listening strategies, by a new musical education grounded on the individual effort of attention, on careful contemplation; notions which are very similar to those presented in Schoenberg's *Musikalische Gedanke*[82] and Brelet's *Le Temps Musical*,[83] and which reflect in many ways the thought of Bergson.

In some cases, the language of musical time in use in Western culture is well delimited by pure spatial constructs, that is, by proper applied analytical methods that ground our musical understanding by guiding our attention to the greater or smaller segmentation and hierarchisation of musical substance. Clearly, the greater segmentation and hierarchisation of musical substance accounts for a higher necessity of definition, of conceptualisation. We routinely find analytical commentaries based on this sort of necessity, such as Charles Rosen's, for instance, when he says that "the *discontinuities* that distinguish the sonata forms from binary form are evidently easier to conceive as stylistic procedures than as definitions of form;"[84] or Nicholas Cook's who, addressing Rose's analytical account of sonata forms, holds that, in Rosen's view, "you can't fully understand classical music, especially classical chamber music, just in terms of how it is heard. You also have to *understand* it in terms of the musical thinking that gave rise to it, and of course it is the job of analysis to uncover what this musical thinking was."[85] Discontinuities, definitions, thinking, the concept, understanding, etc., are central aspects of these sort of commentaries.

Music must be sectioned in order to be understood; while, in doing so, we inevitably end up conceiving musical substance spatially as it were composed of distinct objects, by *immobile sets* that, instead of being motional, actually behave according to distinct motional procedures.

The work of sectioning musical substance that has in mind the commentary of its understanding is generally conspicuous in musical semiotics. Thomas Reiner's *Semiotics of musical time* develops, for example, an epistemological approach to the inherent temporality of semiological tripartition. Though, instead of models of musical analysis, Reiner offers arguments for models of analysis as collections, sets of symbolically driven constructs, and music as a product of signs, sign systems, and sign-oriented behaviours. Reiner points

[82] Schoenberg, *The Musical Idea..., passim.*
[83] Brelet, *Le temps musical...*
[84] Charles Rosen, *Sonata Forms* (New York: W. W. Norton & Company, 1984), 25.
[85] Nicholas Cook, *A Guide do Musical Analysis* (New York: Norton, 1992), 15.

out that much of what constitutes musical time is the result of sign-oriented activities, such as the composer's creation of a musical score, the transformation of notational signs into sonic signs by performers, or listeners' actualization of sonic signs as music.[86] For Reiner,

> much of what constitutes musical time is a product of semiosis. Musical time subsumes music's *recognizable* [my stress] temporal properties and their physical anchorage, its mode of being is essentially that of a concept, and its semiotic status is revealed when it reaches consciousness through interpretative responses that actualize its representations.[87]

In the same vein, though more pragmatically, in *The Stratification of Musical Rhythm*,[88] Maury Yeston suggests that musical time should be defined hierarchically, hence spatially, and regulated by a metric theory that 'distributes' its sense in different structural layers of signification. Yeston develops a spatial multi-layered metric theory which considers irregular patterns of accentuation as results of the overlaying of different non-interpreted rhythmic strata. Yeston's study examines in depth the concept of 'rhythmic consonance and dissonance,' and proposes a methodology directed to rhythmic analysis, which parallels the Schenkerian organicist paradigms, as we may see in Yeston's own words:

> first, music is considered to be uninterpreted, then the various middle ground levels are postulated, then the structures that are formed on or between the levels are examined, and finally the various middle grounds levels are evaluated to determine which of them has especial relevance for a metric accentuation of the foreground rhythm.[89]

There are many more analytical works on rhythm and meter, like Yeston's study, inspired by the Schenkerian approach. Grosvenor Cooper's and Leonard B. Meyer's *The Rhythmic Structure of Music*[90] offers a theory of musical accentuation based on a multi-layered analogy between rhythmic grouping and classic poetic feet, assuming musical time as a stratified product of a finite number of rhythmic archetypes (a rhythmic formulation of temporal modalities). Another is Joel Lester's study,[91] which presents a comprehensive analysis of rhythm and meter in tonal music, based on an extensive categorisation of musical accentuation and its role in defining metric and hyper-metric structures. Musical time as metric ratios and metric deviations is also presented in David Epstein's *Shaping Time,*[92] which explores, primarily in the context of musical Romanticism, rhythm, meter,

---

[86] Thomas Reiner, *Semiotics of Musical Time* (New York: Peter Lang, 2000), 229.

[87] Reiner, *Semiotics of Musical Time*, 230.

[88] Maury Yeston, *The Stratification of Musical Rhythm* (New Haven: Yale University Press, 1976). The theory of rhythmic stratification claims that musical accentuation results from the interaction of different rhythmic strata as a by-product of other primary features. Clearly influenced by Heinrich Schenker's theories, this model comprises levels of motion, each one of them being essentially metrically neutral. Stresses would be a matter of synchronicity between two different moving strata, and meter would be determined by the interaction of stresses. See also, as reference Christopher Hasty, "Segmentation and Process in Post-Tonal Music," in *Theory Spectrum* 3 (1981): 54-73.

[89] Yeston, *The Stratification of Musical Rhythm*, 89.

[90] Cooper and Meyer, *The Rhythmic Structure of Music*.

[91] Joel Lester, *The Rhythms of Tonal Music* (Carbondale: Southern Illinois University Press, 1986).

[92] David Epstein, *Shaping Time: music, brain, and performance* (New York: Schirmer Books, 1995).

and general aspects of periodicity in tonal pieces. He considers that the sense of time is fundamentally dual, hierarchical, and therefore he defines, like Kramer and Barry did, some temporal modalities. Epstein tackles time in music as a special case of time in general. He looks for a scientific approach, and presents many numerical charts consisting of calculations of tempo and rhythmic proportions based on metronomic markings. By establishing metric ratios and metric deviations, he aims to illuminate how musical-time shapes affect the listener's emotional responses. His approach is based as well on a tensional relation between stimuli and satisfaction, and, consequently, related to information-theory.

The language of musical time, as far as recent Western scholarship is concerned, seems to be based on very few, recurring temporal conceptions, most of them, if not all, strongly governed by spatial-motional metaphors. Moreover, in the academy, musical time has been systematically qualified by means of slight variations of a spatial-motional vocabulary, in response, it seems, to a quest for scientific precision. Musical theory is expected to consistently apply a terminology that allows for a clear definition of musical form, implying all sorts of articulations. This terminology has developed a common conception of musical time in which musical temporality is discussed and perceived spatially in terms of its linearity (its goal orientation), like in Kramer; of its density (number or elements of speed of presentation), as in Barry; of its semiotical physical anchorage, as Reiner claims; of its metrical hence pattern-like accentuate qualities, as in Yeston's, Grosnover's and Meyer's, and Lester's theories, or yet of its metronomical formulae, as in Epstein's and the majority of rhythmic studies.

The spatial-motional approach in our musical descriptions, I believe, responds to a cultural tradition arising from the position of music in the superior group of liberal arts that composed the quadrivium, the four ways, of the ancient academy. Music has been ever since described in arithmetic, geometric and astronomical terms. And music has been logical, proportional, formal, gravitational, and so on. This condition has been, as Rowell indicates, part of our subconscious language of music. We commonly *think* music in these ways, responding to hundreds of years of cultural background. But during the twentieth-century, and after all its many technological developments and consequent philosophical turns, this background has changed. After all, we opened the door, so to say, to other ways of describing music and consequently composing and listening to it. Kramer makes this clear, especially when explaining his notion of *vertical time*. We can also think about all technical developments after Debussy's new modalism, Messiaen's uses of Indian rhythms, Schoenberg's 12-tone presentation and after all the serialists from the fifties. We may think also about Stockhausen's many new formulae, including sonic multi-directionality, sound masses, or yet about Feldman's and Cage's indeterminacy, etc. A whole new temporal language is necessary, I feel, to describe this new music, and the main problem in my view, as indicated by Cooper and Meyer, is that 'the study of rhythm has been ham-

pered by a failure to distinguish clearly among the several aspects of temporal organisation itself.' Rhythmic phenomena in the new music of twentieth-century cannot be described anymore only by the temporal musical language we were used to before.

This guides me to the analysis of the grounds of rhythmic phenomena in music. Rowell's rhythmic categories (and Kramer's, however negatively) were very important to setting first steps in this direction. But, before working on a new musical temporal language, it will be important to consider some earlier steps, digging deeper into the way we cognise the musical phenomena. There have been constant works in this direction that takes a psychological approach in experimental researches. In my case, however, I have decided to debate the problem mainly via a philosophical and a slightly anthropological perspective.

Musical time as duration

Bergson's *Essai*, we have seen, presented at the twilight of the nineteenth century the thesis that time is essentially duration, a fully heterogeneous continuity. The meaning of this continuity, Bergson insists, is that our perception, pervading us objectively with the world's concreteness, does not do it simply by juxtaposing sensible intuitions, as if things and our subjectivity were eternally dislodged, but rather operates amid a *marvellous temporal blending*: the world's concreteness continues in us, so to say, as we continue the work of concreteness bringing into it our entire life, our shallow or deep and purest memories. Bergson's doctoral thesis was indeed, at that point, revolutionary.

Inasmuch as Bergson's thesis has been extensively studied, developed and criticised by innumerable scholars throughout the twentieth century, it is striking to notice that almost no trace of the Bergsonian continuous, fluid time is present in the perception, implicit in most recent analytical musical literature, of musical time as a form of segmentation and hierarchy.

This contrast between the perception of the essence of time as continuity, stemming from Bergson's thought, and of musical time as segmentation, previously commented, and taking into account the studies on applied metrics, makes me wonder how much musical theory is open to ontological and (consequently) to metaphysical speculation, that is, how much the way we study music reflects our mind set on these matters, even unconsciously. Forte's work, for example, seems not to be occupied at all with the problem of musical time but with musical structure. However, what is the meaning of structural thinking? It is a process of applying a framework to an unstructured problem. That is, a process of projecting a plan of coordinates that maps the whole picture in order to understand it; and this is still surely under the kind of spatial-motional description just mentioned. There is no problem at all in describing music spatially, since we have been doing this with considerable success for hundred of years. However, problems arise when we fail to distinguish our structural thinking — which is a process of mapping the thing — and the thing

itself. Tricked in this way, we may easily confound the structure of something with *the manner* we structure things.

Returning to Bergson's argument that we continue the work of concreteness, to look at something's segmentation and hierarchy seems to reflect a positive attitude of attention, including of perception, about segmentation and hierarchy itself in accordance with the segmentation and hierarchy in, or of, one's own subjectivity. Structural thinking is thus not exclusively spatial after all because, at least in a Bergsonian point of view, the essence of time embraces everything that makes us what we are, including how we look at things.

That considered, thinking in itself is *eternally spatialising time*; that is, it is a force that orients us indefinitely to seek a superior degree of spatialisation, of rationalisation, *within* a given duration. Moreover, the contemplation of this image of infinite levels of spatialisation suggests the existence of infinite levels of *de-spatialisation* — because becoming always implies infinite orders of sense and nonsense.[93] But what does this infinite 'de-spatializing' orientation actually means in musical terms?

Let us consider the work of spatialisation found in Forte's *The Structure of Atonal Music* and in Cooper and Meyer's *The Rhythmic Structure of Music*. Forte splits musical matter (Webern's, Berg's, Schoenberg's, Stravinsky's atonal music) into primary harmonic sets, prioritising pitch-class sets over other parameters as bases for musical structure. Why do pitch sets rank above durations and rhythmic patterns, timbres and textures? Cooper and Meyer, then, create a hierarchy for the rhythmic/temporal composition of musical matter (tonal music by Bach, Beethoven, Mozart, Brahms, Chopin, etc.) placing them in layers. Rhythm is understood as an intensive-cumulative structuring of accentuation patterns, around primary durational sets, durational-class sets, so to say. But, again, why should duration and rhythmic-patterns sets be privileged over pitches, timbres and textures? Forte's and Cooper and Meyer's analyses are selective, it seems, because they look toward a superior determination, a clearer mapping: in order to better *understand* their object of study, they seem to feel the necessity of split and place it outside, so to say, its true temporal sense.

Messiaen's rhythmic approach is different. In his *Traité de Rythme, de Couleur, et d'Ornithologie*,[94] he considers fourteen different *langages rythmiques*:[95] a rhythmic language of durations, a rhythmic language of intensities, a rhythmic language of densities, a rhythmic language of pitches, a rhythmic language of timbres, a rhythmic language of attacks, a language of rhythmic movement, a rhythmic language of tempi, a rhythmic language of transpositions and permutations, a polyrhythmic language, a rhythmic language resulting from polyrhythm, a rhythmic language of harmony, a rhythmic language of mu-

[93] See Giles Deleuze, "First Series of Paradoxes of Pure Becomings," in *The Logic of Sense* (London: Continuum, 2010).
[94] Messiaen, *Traité de Rythme...*
[95] Messiaen, *idem*, trans. Baggech, 59.

sical premisses, and finally a rhythmic language of silence. So Messiaen also splits music into contrasting languages, but there is a fundamental difference: his *langages rythmiques* are presented in a complementary way that form a complexity, a *whole* in which each one is derivable from another. He presents a duration. For Messiaen we cannot understand or grasp the true temporal, musical sense of *hauteurs*, for instance, by isolating them from durations, intensities, densities, and so on: the pitch spectrum is actually informed by all musical spectra.

This is the work of Messiaen's musical de-spatialisation: musical time is always complex, forming a heterogeneous continuity. It seems correct to say that Messiaen was less permeated by a segmented-hierarchical conception of musical matter, perhaps as a reflex of his deep contemplation of musical matter throughout his life as a composer, of his deeper musical perception (formally and objectively, but also ontological-metaphysically and subjectively). But not only this, because he also calls our attention, on the very first pages of his treatise, to the importance of Bergson's thesis. A musician, he says,

> is inevitably a rhythmicist; if not he does not merit the title of musician. If he is a rhythmicist, he must refine his sense of rhythm by a more intimate knowledge of true time, by the study of different concepts of time and different rhythmic styles. Bergson pretends that duration is an 'inherent trait of consciousness.' In fact, duration presents itself to us with fluctuations of tempo, changes of rapidity: it is true duration, heterogeneous duration, of which appreciation depends essentially on the number of exterior and interior events that are fulfilled for each one of us, in the present and in the past. Abstract time, or structured time arises in the face of true duration. True duration is not measurable. True duration is changing. All perception remains, but this first duration is so far from time in its literal sense that it cannot acquaint us its true nature.[96]

A complementary example is Wallace Berry's functional approach in *Structural Functions in Music*.[97] He considers musical matter as well in its vital and energetic impulse, and refers to the essential role of rhythm "in the delineation of processes of growth and decline, climax and subsidence, stability and flux" to *metric rhythm* "as the rate and pattern of metric change."[98] Berry seems to be imbued as well with a curiosity for musical time as becoming and continuity — rather than exclusively as articulation and space.

Bergson suggests that the attention specially turned to segmentation creates false images of movement. The term *image* is appropriate here. These images are like temporal pieces or 'frames' withdrawn from the concreteness and vitality of duration. Since this sort of attention implies rationalisation, in the sense of a division of the whole into parts, Bergson insists that it is not wise to trust reason with the responsibility for the experience of continuity. This is perhaps the simplest sense of intuition in Bergson's philosophy: the attention which is turned to the direct experience of continuity. This intuition entails though

---

[96] Messiaen, *Traité de Rythme...*, trans. Baggech, 18.
[97] Wallace Berry, *Structural Functions in Music* (Mineola: Dover Publications, 1976).
[98] Berry, *Structural Functions in Music*, 302.

a crucial problem: how to communicate the experience of continuity, hence of duration, of the fullness of time, considering that in order to communicate any experience one depends on the articulations, implied in thinking, on a language that is internally organised *due* to spatialised images, even images of movement? For, it seems, the implementation of a whole new temporal language would be in fact needed, a language able to bring out our temporal contemplations, to represent time; perhaps a language internally organised according to images of intersection, of implication and influence.

As an answer to this problem, Bergson suggests that thinking is not made up uniquely by spatialised images, but that it is equipped with a *capacity* of proceeding temporally much further than them, therefore responding to a superior effort of attention. He says:

> Take a complex thought which unrolls itself in a chain of abstract reasoning. This thought is accompanied by images that are at least nascent. And these images themselves are not pictured in consciousness without some foreshadowing, in the form of a sketch or a tendency, of the movements by which these images would be acted or played in space — would, that is to say, impress particular attitudes upon the body, and set free all that they implicitly contain of spatial movement. Now, of all the thought which is unrolling, this, in our view, is what the cerebral state indicates at every moment. He, who could penetrate into the interior of a brain and see what happens there, […] would know no more of what is going on in the corresponding consciousness than we should know of a play from the comings and goings of the actors upon the stage. That is to say, the relation of the mental to the cerebral is not a constant, any more than it is a simple, relation. […] Thus our cerebral state contains more or less of our mental state in the measure that we reel off our psychic life into action or wind it up into pure knowledge. There are then, in short, diverse tones of mental life, or, in other words, our psychic life may be lived at different heights, now nearer to action [and space], now further removed from it [in time], according to the degree of our attention to life.[99]

Music must not be divested of articulations, disruptions, conclusions, logical linkages and contiguities, of causes and effects, because all of these are to be found as well in our quotidian experiences. The point here is that it is possible to consciously proceed beyond formal disruptions, paying attention as well, in different levels of depth, to zones of greater continuity and flux.

I argue, returning to Bergson's argument, that music may in fact be perceived and thought in the context of 'diverse tones of mental life.' It is possible to conceive of music as existing precisely at the intersection between sensible and conceptual experiences. More to the point, it is possible to suggest the existence of innumerous musical representations of time, emerging precisely because of a relatively greater or smaller spatialisation of thinking.

The contemplation and attribution of continuity or segmentation to music correspond to specific levels of musical representation, either oriented or not towards the purity of time, levels whose echoes appear to manifest deeper or shallower tones of mental life, which are further removed or near to action. We may have indeed distinct representa-

[99] Bergson, *Matter and Memory*, 14.

tional approaches in music, devoted to distinct moments, so to say, of our musicality. If such distinction is true, time may be indeed represented by music, since in our musical representation, oriented by the surface of the musical piece, we reel off our psychic life into action or wind it up into pure knowledge in different levels of depth.

Musical time's rhythmicality

Rhythms are created as 'foldings,' as nodes between the sensible and the conceptual, between the pure temporal and the pure spatial within a fundamental duration. These foldings are more or less complex both materially and intellectually, which means that they are more or less profound or intense within a duration. In figuring out this relative rhythmical profundity, one should consider Bergson's distinction between pure memories (a Bergsonian doctrine) and sensations:

> My actual sensations occupy definite portions of the surface of my body; pure memory, on the other hand, interests no part of my body. No doubt, it [pure memory] will beget sensations as it materializes, but at that very moment it will cease to be a memory and pass into the state of a present thing, something actually lived. I shall then only restore to it its character of memory by carrying myself back to the process by which I called it up, as it was virtual, from the depths of my past.[100]

There are, thus, intense actualities as there are intense virtualities, which are related, but not of necessity proportional, to each other. So, if the folding of musical sensibility and musical understanding is deeper, it so represents a deeper rhythmical order (that of musical times) that manifests the emergence of fundamental temporal archetypes. If intermediary, it represents an intermediary rhythmical order (that of musical temporalities) that manifests the emergence of distinct temporal-psychological traits. Now, if superficial, their folding represents the very surface of rhythmic phenomena, a rhythmical order (of musical temporalizations) that manifests systemic and metrical models, common-sense rhythmical features.

Now, we must not confuse the surface of rhythmic phenomena with their sensation, because what is addressed here is not sensation as such (hearing, for instance) but sensibility, which is a different concept. I quote Bergson in the context of pure memory just to call the attention to the fact that there are different cognitive regions within a duration, all virtual, though the more embodied is the work of our mind, the more spatially it seems to operate rhythmically. Common-sense rhythmic phenomena are, in essence, *embodied*, but there are other rhythmical complexes that manifest deeper and less sensory rhythmical orders. This understanding is crucial, because a grounding rhythmicality is difficult to trace, even more to describe. We will not find these orders so easily projected on the surface of the piece of music. We need to investigate their presence and constitution beyond the musical work as it is actually presented to our senses. Because they are funda-

[100] Bergson, *Matter and Memory*, 139.

mental, in order to describe them we need to concentrate our best efforts in trying to solve fundamental musical problems as well: for example, beyond the problem of how musical accentuation is distributed at the surface of a musical work, we may want to investigate how intense this distribution seems to be, that is, how complex is the deeper rhythmicality it reflects. In brief, musical surface is a realm of rhythmical appearances, and to exhaust these appearances analytically, as if they were the only rhythmical aspect to look at in music, means, frankly, undermining the whole problem of time and rhythm in music.

With this in mind, I argue, with Bachelard, that time is not really much more than what we know about it: that time is to us according to our understanding of it.[101] This is a bet, of course, that understanding time is possible. But, in case we admit the existence of a 'temporal understanding' or something related to it, what would this specific understanding mean? Would it be governed by the same rules of our understanding in general?

Bergson's philosophy addresses this problem. He proposes, first of all, that the possibility of knowing emerges along with the possibility of being, as he considers this possibility in view of his *durée réelle*: to be and to know can only be real for us within a vital duration. Though it is a duration that cannot be rationally simplified or isolated in any form of being and knowing, but only *lived* in its own flux according to their heterogeneous and complex composition. Knowing and its mechanisms of representation would be always turned towards non-being, answering a necessity of articulating, of cutting out the vital flux of experience in as many pieces as possible, of producing generalities, concepts. The problem remaining then is that of conceiving a *way of knowing* capable of keeping itself as close as possible to the vital flux of experience.

Bergson alleges that there is an important distinction between a knowing that "implies that we move round the object," and another that implies "that we enter into it." He asserts that

> the first depends on the point of view at which we are placed and on the symbols by which we express ourselves [while] the second neither depends on a point of view nor relies on any symbol. The first kind of knowledge may be said to stop at the 'relative'; the second in those cases where it is possible, to attain the 'absolute.' [102]

Like Bergson, I also ask about the possibility or viability of this second way of knowing, in which we do not stop at the relative but reach for the absolute. This second method of knowing, opposed to analysis, is what Bergson calls intuition. Intuition is a sort of temporal consciousness, an attention to life dedicated to the understanding of the vital flux of experience, of the here and now — instead of building blocks of meaning about past and future events. This way of understanding is, as I see it, the very type of understanding that allows for the temporal knowing suggested by Bachelard: time would not be really

[101] Bachelard, *Dialectic of Duration*, chapter 2 onwards.
[102] Bergson, *An Introduction to Metaphysics,* 21.

much more than what we understand about it when we exercise a way of knowing antithetical to the usual analytical way of knowing, when we wield a special way of knowing, that "senses and feels" temporal fluxes, the inner being of things.

Bergson's philosophy advocates the implicitness of being and knowing. Beingness — the quality, state, or condition of being, which is who we are at the very core of life and so is more than just existing[103] — would constantly evolve creatively in the presence of knowledge: expanding, itself and knowledge, by newness and originality; contracting and being contracted by habit and determination. This matches once more Bachelard's proposition. We all agree that time passes in different ways for different people. It is not counterintuitive to suggest that time seems to expand and contract many times during the span of our lives. Saying that time is what we know about it, as Bachelard does, may mean that time is, of necessity, an unique intimate experience which is according to what we are, differing in as many ways as we differ ourselves.

Reading Bergson induces the insight of a transforming movement, a dynamic, heterogeneous reality and vital flux that expands and contracts due to the expansion and contraction of being and knowing, as they reflect, relatively, the potential of innovation or recursiveness of each lived experience. Our musicality depends, it seems, on this dual motor: severed from knowledge, the being is condemned to a hellish living alienation; severed from beingness, the knowing is obscure like the shadows in Plato's cave.

Since Plato, at least, philosophy has searched for a solution to the same dilemma: are we as we know, or do we know as we are? However, the problem here presented is a lot simpler. My thesis dwells exactly in between the terms of that dilemma: I intend to demonstrate that our musicality may be studied as their intersection and mutual influence.

I try to confer on the relation between being and knowing a rhythmical characteristic, of flux and complexity, and to relate the rhythmical nature of this relation to the essence of the compositional act in music. In doing so, I have extended the ordinary meaning of representation, suggesting that it can be musically qualified. Knowing is dependent on envisaging a possibility for logical successions of events. It is also dependent on conceiving of a possibility for the *absence* of logical relations, that is, a possibility for the unknown. In the same way, knowing is subject to conceiving a possibility of advancing towards knowledge by means of the problem, and of retreating in the direction of the known through problem solving. There are two primary modes of knowing but also two primary *attitudes* towards knowledge. This understanding informs the bases of our musicality with forms of determination (and habit) or non-determination (and discovery), and also of

[103] Tymieniecka explains Bergson's thought about the ontopoiesis of life: "the organism which carries the beingness of the living is not identical with the conscious center of the agent, its conscious directional motor, its 'self,' the self of the living agent, the human self." Anna-Teresa Tymieniecka, "Toward the Reformulation of a Classic Problem: Memory in the Ontopoiesis of Life," in *Memory in the Ontopoiesis of Life, Book One, Memory in the Generation and Unfolding of Life* (Hanover: Springer, 2009), xvi.

difference (and expansion) or repetition (and contraction) directly related to our experiences.

For Deleuze, additionally, thinking is delimited in its very constitution by a permanent search for identities, by a force of intellectual purification that looks forward, so to say, at the differential plenitude of concreteness, the best definition, the clearer outline, the understanding. Thinking is directed towards the task of recognising, repeating. Our sensibility, on the other hand, fully *resonates*, as it were, the differential plenitude of concreteness, its intensities, always propelling different impulses, according to its (ours) own different perceptual reaches. It is diverging, centrifugal, a source of ideas. A force that *charges* ideas themselves with multiplicity and creativity.

Thinking may be influenced by sensibility, becoming *expanded*, diversified, decentred, and directed to problems more than to problem solving, to becomings more than to defined states, etc. But sensibility may be also influenced by thinking, *contracting*, and turned into acquiring from the world only those intensities which are suitable to a specific representation. This orientation works as a limitation to sensibility — a limitation that is not real but provisional, since, in essence, sensibility is free of this sort of intellectual restraining.

It is from this perspective that I propose that sensibility and understanding *fold and unfold* one another; that we place ourselves in between an eternal rhythmical structuring. Temporally the self *goes back and forth*, in itself, between two methods: the method that engenders logic and certainty — hence history, pastness, and future — and the method that leads to presentness, to the most concrete and direct experience of things.

This folding is always riddled with problems, either taken positively and necessarily, as creative forces; or negatively and *problematically*, as something that must be avoided. That is why Christopher Hasty posits that "music has occasionally been valued as an opening for thought, or rather thought about thought".[104] Music is thus a source of problems that "can be seen to lead to further, new, and creative thought."[105] But, I insist, the creative power of music can be also 'devaluated' by temporal contraction, if the problems involved in its constitution stand "in the way of a proper thought,"[106] of a thought that is invigorating. Hasty explains that,

> in a Deleuzian sense, problems do call for a creative effort that can be difficult or burdensome, but they are not to be avoided or cut short; indeed, with the exercise of creative thought and good fortune, problems can be exhilarating. For Deleuze, problems are the actualizing, affective moments of Ideas.[107]

---

[104] Christopher Hasty, "The Image of Thought and Ideas of Music," in *Sounding the Virtual: Gilles Deleuze and the theory and philosophy of music,* ed. Brian Hulse (New York: Routledge, 2016), 1.
[105] Hasty, "The Image of Thought…", 1.
[106] Hasty, *idem*, *ibidem*.
[107] Hasty, *idem*, *ibidem*.

For Deleuze, there are true and false problems. In *Bergsonism*, he points to what he calls the first rule of a Bergsonian intuitive method: "[to] apply the test of the true and the false to problems themselves [and to] condemn false problems and [to] reconcile truth and creation at the level of problems."[108] It is my intuition, though, that truly creative ideas are not always exhilarating, but composed as well by false problems: their rhythmicality is formed and transformed by an eternal superposition of problems as much as of solutions. Our musical representation is musical exactly because our representation faces both sides of problems simultaneously, their power and weakness.

It is possible to speak about (and to theorise about) musical concepts, such as unit of time, binary form, series, tonality, and so on, in the context of musical representation. As concepts, they are ordinarily pictured by the musical mind as temporal solutions, as musical schemes that are taken for granted as structuring musical forces. But it is also correct to say that the musical concept alone does not *serve* or compose a truly creative musical idea because, in this case, it is just an index, emptied of time, which can never by itself supersede the experience of musical composition. Musical representation is distinct because it always implies a creative mixture of musical concepts (that base our musical understanding) and the actual musical matter (that grounds our musical perception). It implies proceeding beyond the crude musical materiality perceived at the surface of a musical piece. It also implies proceeding beyond the understanding of the musical structure re-cognised *from* past musical experiences. That is, proceeding beyond matter and memory towards the complexity and multiplicity composed by them. In other words, musical composition dwells, in a manner never fixed, between musical expressivity and musical interpretability.

From this point of view, the problem of representation in general is one and the same with that of musical representation, and this obviously includes considering musical representation from the point of view of change. For "Deleuze's critique of static representations of experience — which, being static, cannot truly represent experience — suggests ways of developing music theory that might foster creativity and minimise some of the more alienating effects of music-theoretical discourse."[109]

Deleuze's thought is indeed significative for a new, innovative music theory developed in opposition to the traditional epistemological orientation that avoids untidy differences by privileging a clearer outline, the generalization of musical objects and of formal rules or constants. That is why Brian Hulse comments on Deleuze's philosophical project that

> what Deleuze wants thought to do, whether it is thought on music or on something else, is to contemplate this intensive assembling of things in all their differences, rather than, as is so often the case with music theory, to reduce away the messy differences of actual becom-

[108] Deleuze, *Bergsonism*, 15.
[109] Hasty, "The Image of Thought…", 4.

> ings in order to postulate unities, identities, 'coherence,' and so on.[110]

Because of that, a great amount of recent literature devoted to the study of musical time and to its analysis is not dealt with here, especially when it presupposes a musical understanding when facing the difficulties of musical presentation to the consciousness. In that field of studies, there is much research on the nature of musical metrics and its perceptions, like Justin London's *Hearing in Time: psychological aspects of musical meter;*[111] or dedicated to the problem of musical narrativity — which usually deals with the matter of continuity of thematic flux in a musical work — such as *Silence and Slow Time: studies in musical narrative*, by Martin Boykan.[112] There are, still, even more specific studies committed to the musical structure of some faculty, noticeably to the study of musical memory, like Bob Snyder's *Music and Memory,*[113] or to the nature and problem of temporality in 20th-century music, involving speculative work both of composers and performers.[114]

However important, conventional studies on musical metrics or on musical narrativity add only very indirectly to the theoretical bases of this thesis. The metrical problem, for example, is dealt with here as an expressive-interpretative musical fact of relative mobility and heterogeneity in what concerns the complexity of the compositional process. Musical metrics do not reflect exclusively the regularity or irregularity of a certain pulse, its sequentiality, but rather the regularity and irregularity of several simultaneous pulsations, of several 'rhythmic languages,' as much as their role in forming a particular metrical image, temporally complex, that is offered to musical representation as a means to the representation of the compositional process proper. This view, therefore, is not — or it is very frailly — explained by the traditional approach to the matter.

In the same vein, the problem of musical narrativity as presented here escapes the scope given by ordinary literature to the issue, by being also broached as a function of the compositional process, as a fact of its temporal complexity, seen as a whole. Musical narrativity is here dialectically set against musical episodicity, forming a determined compositional level as if it were a play of 'temporal layers of meaning.' My approach to the narrative as a layer of meaning is distinct from traditional studies on musical narrativity, which by and large are strongly, and almost exclusively, concerned with narrativity as a function of the

---

[110] Brian Hulse, "Thinking Musical Difference: musical theory as minor science," in *Sounding the Virtual: Gilles Deleuze and the theory and philosophy of music,* ed. Brian Hulse (New York: Routledge, 2016), 24.

[111] Justin London, *Hearing in Time: psychological aspects of musical meter* (Oxford: Oxford University Press, 2012).

[112] Martin Boykan, *Silence and Slow Time: studies in musical narrative* (Oxford: Scarecrow Press, 2004).

[113] Bob Snyder, *Music and Memory* (Massachusetts: Massachusetts Institute of Technology, 2000).

[114] See, as reference: Cf. Frank Agsteribbe, *et al.*, ed., *Identity and Difference: essays on music, language and time* (Leuven: Leuven University Press, 2004); Dala Crispin and Kathleen Snyers, ed., *Unfolding Time: studies in temporality in twentieth-century music* (Leuven: Leuven University Press, 2009); and George Rochberg, *The Aesthetics of Survival: a composer's view on twentieth-century music* (Michigan: University of Michigan Press, 2004).

linearity of musical discourse, of its sequentiality, of its teleological nature. Musical time as complexity even implies considering the possibility of absence of a musical narrative, or rather, of the existence of specifically lyrical musical languages, and it is because of this context of mobility of the senses that the musical narrativity is here developed almost exclusively from Schoenberg's and Stockhausen's approaches.[115]

The approach to theory I aim to develop here does not comply with the usual distinction between *musica speculativa* and *musica pratica*.[116] I look at them here as if united by a common problem: the deepening of philosophical and psychological aspects of the compositional practice. In other words, they are here bound by a two-folded diagnosis of the temporal complexity and multiplicity of the musical idea, and that of the experience of this complexity.

This approach is not in fact extraordinary. As Christopher Hasty says,

> much of what we call music theory has had an eminently pragmatic function — the development of musical notation and categories for composing and reading music, for example, concepts of consonance and dissonance, the harmonic and non-harmonic, categories of modal species, metrical types, 'formal' and interval types. The objects of writing and reading do indeed supply a necessary and efficacious fund for musical practice and its teaching.[117]

Much of music theory has been indeed desirable and useful to our day-to-day musical practices, but the main point to be considered here is how "music theory in its many forms can function more or less creatively or destructively. It can lead to a growth of skill and sensitivity, or it can lead to an alienation or distancing from aesthetic experience."[118] It is in this specific sense that music theory shares the same image of rhythmicality that has been in discussion here: music theory may be creatively dynamic; and it is this specific dynamicity that allows my research to try overcoming that usual distinction between *musica speculativa* and *musica pratica* theoretically. Alone, *musica speculativa* always runs the risk of missing its own object as it tries to crystalise music and musical experience, by negating its constant, necessary mutableness. Alone, *musica pratica* stands a chance of being imprisoned in the superficiality and emptiness of an act, a function, a craft. Associated, however, in a musical theory amply open and dynamical, their individual senses are multiplied and renewed: they become alive.

From a Deleuzian point of view, if a musical work can be understood,

---

[115] Other studies include: Jeremy Begbie, *Theology, Music and Time* (Cambridge: Cambridge University Press, 2000); Michael Spitzer, *Metaphor and Musical Thought* (Chicago: University of Chicago Press, 2004); Kevin Korsyn, *Decentering Music: a critique of contemporary musical research* (Oxford: Oxford University Press, 2003); Eric Prieto, *Listening In: music, mind and the modernist narrative* (University of Nebraska Press, 2002); and Byron Almén, *A Theory of Musical Narrative* (Indiana University Press, 2008).

[116] See the extensive criticism to academic theoretical practice in Hasty, "The Image of Thought …", 27.

[117] Hasty, *idem*, 4.

[118] William James *apud* Hasty, "The Image of Thought …", 2.

> this understanding should be consonant with our hearing and seeing (the notation) and with our imagining and remembering […] a work requires that it can be sensed, understood, and remembered as this work — that it can be re-cognized as the work. Deleuze calls this ideal cooperation of faculties, working in a unitary subject in which they are joined, common sense or a *concordia facultatum*. 'Common' here means commonality of faculties converging on an object of knowledge. Of course, in this scenario the work can be more or less adequately thought, and thinking about the work can change, presumably in the direction of increasing adequacy to the ideal work. This possibility introduces the need for a **good sense.** Good sense introduces a regulative valuation for the operations of common sense, a faith that with good will our thinking will move toward proper understanding, that the direction of change is indeed toward an ideal adequacy, an adequacy to the ideal of the work as a stable, self-same object.[119]

It was in a similar context that William James argued that "the everlasting coming of concrete novelty into being is so obvious that the rationalising intellect, bent on explaining what is by what was, and having no principle but identity to explain by, treats the perceptual flux as a phenomenal illusion."[120] So, Deleuze calls "good and common sense," what James called the "rationalising intellect," and claims that ideas despise common and good sense. They despise because in his transcendental empiricism,

> the transcendental is understood as the potential or virtual and designated as the realm of Ideas. Deleuze's Ideas are nothing like generals or concepts. Ideas are fully real but have no actuality—they are purely virtual. Nor do they in any way resemble the actualities in which they are incarnated. Ideas have no identity or sameness because they are in themselves neither one nor many. Ideas have nothing to do with knowledge and everything to do with learning.[121]

As ideas have nothing to do with knowledge, they are accessible only in a negative way, by initially identifying the forms of recognition that derivate from good and common sense. For a moment, if we really want to work the openness of our analytical power, we must illuminate good and common sense always in order to avoid it. For the rationalising intellect operates in fact as a rhythmical force, a force that opposes the world of ideas, and at the same time serves the ideas positively. The rationalising intellect spells out ideas, *because its nature contrasts with the ideas.*

In a fresh, ever innovative musical theory, the musical work would be as a *verb*,

> an activity or performance in which what is (per)formed is the actual, the *wirklich*—fleeting and changeable—then the question of production can no longer be addressed by substantives (nouns). But if it cannot be addressed by substantives and the postulation of an enduring self-same substance, then by what? Deleuze's answer to this question crucially involves Idea as a way of mediating a transcendent virtuality, or a way of moving from potential through actual.[122]

---

[119] Hasty, "The Image of Thought …", 8.
[120] William James *apud* Hasty, *idem*, 2.
[121] Hasty, *idem*, 8.
[122] Hasty, *idem*, 10.

In a way, this thesis is also an attempt to answer, in music, this question. So I agree with Hasty´s comments about the need to look at music as a "useful vehicle for criticising the *doxa* of representation and thus for thinking in unorthodox ways [in order to] problematise notions of subject and object, unity and multiplicity, finite and infinite, knowing and feeling." [123]

In short, the most important thing to be initially said about Deleuze and about the development of his thought from Bergson is that for Deleuze the idea is essentially compositional, and that the same should be said about the musical idea and its theory. It is not a knowledge, but a *source* of knowledge and, as such, it is not confined to itself. My understanding of Deleuze thus induced my critical stand towards conventional musical theory. This criticism, of course, has to do with the idea of theorising musical representation in a manner open enough to answer both to the good and common sense and to an *uncommon sense*. As I see it, a music theory devoted to the compositional process as experience should always contemplate both spectra of representation: the representation that tries and fixes meanings, and that which seeks the mobility of the meanings.

III – MUSICAL IDEA

Schoenberg: the repetition in the difference

In his notes for the preface of *Musikalische Gedanke*, Schoenberg entitles a section as "the Profundity of the Idea and its Realization as a Standard: profound and superficial ideas, higher and lower forms, primitivism and art music."[124] Although never properly written down and conceptually developed — we have only a few schemas and draftings —, this section, at least its title, is a very important guide to the present discussion. In it, it is made clear that, for Schoenberg, the musical idea subsumes a sort of tridimensional musical space, formed between (i) *profound and superficial musical ideas*, in the sense of the idea's fundamental temporal complexity — which is here considered in respect of musical lyricalness and dramaticism, and their expansibility or contractibility tendencies, as they constitute determinate musical times; (ii) *higher and lower musical forms* or formations, meaning the formal distribution of the idea's fundamental temporal complexity — which is here considered in respect to distinct memory and imagination types of musical impulses and to distinct metric and systemic forms of musical thought, as they constitute, respectively, determinate musical temporalities and musical temporalizations; and (iii) *primitive and artful types of music*, in the sense of the response-quality of individual and social types of musical representations — which is here considered in reference to determinate levels of temporal conformity or transgression.

These distinctions concern the graduality or degree of spatialisation of the musical idea,

[123] Hasty, "The Image of Thought…", 3, 6.
[124] Schoenberg, *The Musical Idea…*, 96.

in the senses of its emergence, composition and presentation. All in all, they address a counterintuitive notion of space, which is actually a 'moving, flowing temporal space' that *becomes* positively or negatively spatial by including its own affirmation and its own negation, its building or deconstruction.

Instead of representing a fixed, independent and homogeneous dimension that *receives* the musical idea, this flowing musical space is rather a moving dimension that emerges and develops simultaneously with the emergence and development of the musical idea itself. It changes, becomes deeper and more condensed or less so, as the idea is compositionally transformed. This notion of musical space, I argue, does not indicate the existence of a *place* external to music, and therefore potentially shared by all possible musical ideas, where music would be disposed, both cognitively and materially, in different manners and directions. It rather indicates an ideal body of music *and* the movements of this body. A heterogeneous body that, on the one hand, is *deeply invented* and revolutionised, according to many different levels of temporal complexity, by means of the process of musical composition itself; yet, on the other hand, a body that is also *superficially invented*, transpiring a fluid sound space, simultaneously given and received, by means of the presentation and representation of the musical idea. It is deeply invented not in the sense of being on the surface of music — as sound — in its presentation or representation, oriented by cultural values and historical demands; but rather as a compositional process, which is invented as becoming, as musical time — complex and intimate.

Even if qualitatively different, the Schoenbergian notion of musical depth coincides with the notion of compositional depth here presented: in both cases, the musical idea exhibits a deep side, a sort of all-embracing and profound expressive compositional force, in the sense that it always occupies the depth of a given compositional process, as it always works in advance, as it were, of musical presentation.

Considering that an important expressive side of the musical idea occupies the depth of a given compositional process and that the presentation of the musical idea always refers to this process, if something is lost in the presentation of the musical idea, much more is at stake than that that was lost: one loses musical depth. On this, Schoenberg says that

> much may be more or less literally repeated in musical space. But musical space is not infinite; *it is circumscribed by recollection* [my stress]. One must make do within these limits. Whatever may be wasted in a presentation through breadth, may be doubly lost, that is, the loss is squared or even cubed since depth will thereby be lost.[125]

Here Schoenberg presents the problem of what is missed, wasted, in the sense that "much may be more or less literally repeated in musical space," indicating the importance of the compositional treatment of repetition in up-keeping the depth of the idea. That would be so because, for Schoenberg, the musical space itself would be circumscribed by re-

[125] Arnold Schoenberg, *The Musical Idea*, manuscript no. 9, 1934a, in Schoenberg, *The Musical Idea…*, 305.

membrances. Thus, in order to create the musical space itself, and consequently to allow for accessing its depth, one should enforce the compositional treatment of repetition over that of difference.

For Schoenberg, therefore, musical composition should answer to an increasing refining of difference, to a crescent voiding both of the composition of the musical idea as its presentation and of the presentation of the musical idea as its representation. Since, on the one hand, the composition of repetition would be extremely needed to the justness of the presentation of the idea and, on the other hand, the space of remembering is not endless, the representation of the musical idea should be primarily oriented by an economy and a control of difference, towards a constant pursuit of coherence.

However — now having in mind the qualitative distinction, mentioned above, between Schoenberg's notion of musical idea and that that is here discussed — the notion of musical depth I present also tackles the compositional treatment of difference, without privileging repetition over difference or vice versa, since they have diverse representational functions. Perhaps the main difference between both notions is that while, for Schoenberg, the musical space is preponderantly made up of remembrances, and must be built by the controlling of repetition over difference, here, it evenly comprises remembrances and prospects, memories and imaginations — which freely advance and recede subjectively between pure memories and motor diagrams, to say it in Bergson's jargon —, that is, here, the musical space is also undone by the control of difference over repetition.

The reiterative orientation of Schoenberg's thought is clear, for example, when he emphasises that intelligent relations between different things can only be established by means of resemblance. For him, "resemblance means: partly equal, partly different. If all parts should be equal, the things should be identical. Should all parts differ, the things should be different. Resemblance must not only be direct, but can also be indirect, mediate."[126] For Schoenberg, resemblance means, ultimately, the direct or indirect compositional installation of articulations, of evokers, within the continuity and heterogeneity of the temporal flux of the musical idea, evokers that refer more closely to degrees of repetition than of difference.

Resemblance, as Schoenberg maintains, is not really expressive of musical continuity but necessary as a temporal intersection, as a contraction of musical continuity, as a reiterative bridge that connects differences. Hence it is here of necessity conceived in a dramatic-evolutive musical context, just like, for example, the common-note importance in harmonic connections: in this sense, just as the connecting note guarantees a fluent, coherent harmonic transition, a 'connecting thought,' so to say, guarantees its own formal fluency and coherence, that is, the fluency and coherence of thought and not that of the music.[127]

[126] Leonard Stein, ed., "Schoenberg: five statements," in *Perspectives of New Music* 14 (1975): 164-65.

Resemblance, in Schoenberg's musical idea, represents the parcel of repetition that is inferred from difference, which, refining difference, becomes logically controlled. Actually, this parcel of repetition and the greater or lesser relative complexity of the control by repetition over difference are precisely what Schoenberg calls idea and the profundity of the idea, as Schoenberg establishes that different things are only possibly connected by means of repetition and that intelligent relations between things are always inevitably coherent.

Although the Schoenbergian notion of the cohering capacity of a musical idea is correct, I contend that the musical idea itself exceeds that capacity. The dramatic-evolutive enlacement accomplished and warranted by articulating musical continuity by means of repetition is not, in my opinion, the sole possibility of establishing intelligent relations between things. There are also intelligent non-evolutive *lyrical* relations that can be established, directly and indirectly, between differentness and differentness, without the need of connecting difference to difference by means of the same.

Schoenberg claims that one should compositionally experiment in unbalance only after controlling balance. Discussing tonal harmony, for example, Schoenberg affirms that "advanced harmonic techniques will only benefit him [i.e., the student] if a sense of balance and form, and the understanding of musical logics, enable him to control his ideas."[128]

Musical form would hence only arise, in this perspective, by stopping, limiting or solving unbalance. For Schoenberg,

> every succession of tones produces unrest, conflict, problems. One single tone is not problematic because the ear defines it as tonic, a point of repose. Every added tone makes this determination questionable. Every musical form can be considered as an attempt to treat this unrest either by halting or limiting it, or by solving the problem.[129]

Still, in the context of harmony, Schoenberg also claims that "the centripetal function for progressions is exerted by stopping centrifugal tendencies, [thus establishing] a tonality through the conquest of its contradictory elements."[130]

He assumes at this point the potential expansion of musical form, its centrifugal tendencies. It follows that tonality should always be thought in perspective of a permanent formal contraction, as a manner of compositionally approaching centripetal formal tendencies in order to control centrifugal ones. But, if that were the case, for necessity atonality or

---

[127] Schoenberg's thought, at this point, is clearly influenced by the ordinary contrapuntal notion of necessity of controlling the pace and 'place' of dissonance. In this context, difference — any difference — must be controlled, introduced and liquidated as if it were a temporal dissonance. On the notion of durational (but not temporal) dissonance, see Yeston's *The Stratification of Musical Rhythm.*

[128] Arnold Schoenberg, *Preliminary Exercises in Counterpoint*, ed. Leonerd Stein (New York: St. Martin's Press, 1964), 23.

[129] Schoenberg, *Style and Idea...*, 472-473.

[130] Arnold Schoenberg, *Structural Functions of Harmony*, ed. Leonard Stein (New York: Norton, 1954), 2.

non-tonality should rather be thought in a distinct way, preponderantly by approaching centrifugal formal tendencies in order to unleash centripetal ones.

So, musical form is primordially defined neither by centripetal nor by centrifugal forces, but by the *flux* or degree of complexity both in the control of difference by repetition and in the unleash of repetition by difference. Even if he privileges the importance of repetition over difference in the constitution of the idea, Schoenberg supports this point of view once he expresses the mutuality and complementarity of the compositional function both of repetition and difference:

> the less objects are equal, the more they are different, the more it is difficult to join them. But the more they are equal, the more the relation is of no interest. And we can pretend a difference amongst (i) such ideas which establish [intelligent] relations between very resembling things and (ii) such [ideas] which [establish intelligent relations between] very different things.[131]

Unmistakably, I think, Schoenberg's musical idea, however grounded on the coherence principle, is itself potentially imbued of a differential gradualness that allows it to be extended beyond the boundaries of coherence and remade as a function of a certain level of non-coherence. This hints, additionally, that the role of repetition and its graduality (and thus of articulation and coherence) is one, and the role of the graduality of difference (and thus of continuity and non-coherence) another. I suggest that the role of repetition would be that of *spatializing* the musical idea, of enabling it to be accessed by representation and hence also by interpretation, whereas the role of difference would be that of *de-spatializing* the idea, of referring it back to its creative origins and expressivity. The notion of musical space, after all, should not be metaphorically accepted as invoking a fixed Newtonian space that receives time as motion, but as a fluid and compound moving substance, which, formed evenly by space and time, constantly advances and recedes between them in infinite mixtures.

Yet, in arguing for the notion of musical space, Schoenberg further addresses the relation between its realisation and the source of the musical idea. Schoenberg asks whether they compose a unity: "what is the inspiration of the composer? And, what is inspiration, what is realisation: is realisation also inspiration and to what extent? Or: How do individual works (ideas, inspirations) of a composer relate to one another, namely, do they form a unity? To what extent and what kind of unity?"[132]

For Schoenberg there are two musical orientations: that of inspiration and that of realisation. It is implicit that the orientation of realisation is that of repetition, of permanence, of past and memory, and hence of interpretation, because "the musical space is not infinite

---

[131] Arnold Schoenberg, *The Musical Idea*, manuscript no. 9, 1934a, in Schoenberg, *The Musical Idea…*, 305.

[132] Arnold Schoenberg, *The Musical Idea*, manuscript no. 4, p. 4, ca. 1929, in Schoenberg, *The Musical Idea…*, 259.

but circumscribed by recollection," by the temporal contraction of the idea. It is also implicit that that of inspiration is towards difference, change, towards the future and imagination, an orientation to the expression and the temporal expansion of the idea. Thus the Schoenbergian musical space seems to be delimited by the compositional process itself, even if Schoenberg does not directly refer the difference which imbues the musical idea to its sensible bases, but rather to what is beyond the self. Thus, beyond the play of difference and repetition, there is also in Schoenberg's thought an awareness of the play of certainty and uncertainty, that is, of the relative dramaticism and lyricalness of the idea.

As I see it, however, Schoenberg's understanding of the depth of the musical idea is problematic exactly because although he does actually conceive of a possibility of a lyrical idea, by restricting the notion of lyricalness in the world, as he apparently does, he curtails the lyricalness of the idea *in the self*. For Schoenberg, once installed in the self, once 'inspired,' the idea is (or should be) logically controlled by repetition, which indicates a rationalist (and therefore articulative) stance regarding the differential fullness of things (as things without us, as things in themselves). If Schoenberg were of a mind that difference could be, in a Bergsonian way, subjectively installed (be *with* us, *in* us, beyond repetition), maybe it would have been possible for him to consider, in his own compositional process, more intensive forms of serialisation or even open, random and improvisational forms, so frequent in the second half of the 20th-century. All in all, this reinforces the thesis that the musical idea is actually according to its inspiration in the self, and not something that is already there to be fully received, in an essentialist way. It is indeed according to its own temporal expansions and contractions in us, as we are and live, as we create. That is why, in music, it is fundamental that *difference* has in composition the same importance as repetition.

Having briefly defined the main terms of the depth of the Schoenbergian musical space, it remains to be noticed what may be understood as higher and lower musical forms and as primitive and art music. As I see it, higher and lower forms emerge already during the compositional process and not at the presentation of the musical idea. A lower form, for example, means a contractive form of relative temporal simplicity and temporal determination and not exactly a form of relative material simplicity. Even pieces of unquestionable material simplicity may be based on higher temporal forms, as far as it is the complexity of the idea and not exactly that of the presentation of the idea that defines, after all, their formal status. Form in music could be thought as the form of a musical idea's temporal complexity, more than as the form of the material complexity of a musical idea's presentation. But how can someone analyse form as idea?

The formal status of a musical idea is given, it seems, by the distribution of its temporal complexity over distinct layers and zones of projection of musical meaning, as this distribution happens before its presentation. Clearly, the presentation of the idea *presents* a possible version of a given distribution of the musical idea's temporal complexity. A higher

musical form would be a higher form of temporal complexity. The idea would be placed in a given moment of the creative spectrum either oriented as a higher form towards deeper levels of temporal complexity, towards difference and non-determination; or as a lower form towards shallower levels of temporal complexity, towards repetition and determination.

Additionally, on primitive and art music, Schoenberg posits that

> [i] the more primitive a musical idea and the piece based on it, the more the concern for comprehensibility prevails, the slower the tempo of presentation, the fewer the *gestalten* and remote *gestalten* employed. [But] [ii] the more artful or at least the more complicated the idea is, the richer the number of *gestalten*, the greater their distance from the *grundgestalten*, the faster the tempo of their stringing together, and the more the ability of a listener will be relied on to grasp quickly and in their full consequences the coherence-forming components."[133]

He suggests that the primitivity of music is conditioned by a commitment of the idea and its presentation to interpretation. Musical art, as opposed to musical primitivity, would be oriented by expression. Thus, a greater need of understanding — that is, of interpretation —, means a greater need to present the idea in an articulated, careful, parsimonious, homogeneous and melodic manner. All the same, the greater the demand to share the richness of the idea — that is, to expression —, the greater the need to present the idea in a manner that is agile, heterogeneous harmonically and polyphonic. It follows that a primitive musical idea or presentation will condition a primitive musical representation, and vice versa. The real difference between primitive and art music would be given in the context of a temporal complexity at the representation of the idea, since the idea will only be actually artistic or primitive when artistically or primitively *redone* by the other. This means that primitive musical ideas ask for primitive presentations, for simple diagrams that imply many levels of inattention and lesser introspections. Moreover, it means also that artistic musical ideas ask in turn for artistic presentations, which, as complex diagrams, demand greater introspections and musical representations able to infuse motor diagrams with purer times.

Stockhausen: the difference in the repetition

Stockhausen promotes, both compositionally and theoretically, the notion of a temporal continuity of sound matter over the musical idea (its ideal space). He does it chiefly by means of a subsidiary notion of the existence of a temporal continuum between regular pulsation and pitch, and between irregular pulsation and tone colour (timbre). Stockhausen remarks that

> I started to compose sounds in a new way in 1956. I recorded [a] individual [regular] pulses from an impulse generator, and spliced them together in [b] a particular rhythm. Then I

[133] Arnold Schoenberg, *The Musical Idea*, manuscript no. 2. p. 1, 1925a, in Schoenberg, *The Musical Idea…*, 235.

> made a tape loop of this rhythm, let's say it is tac-tac, tac, a very simple rhythm —and then I speed it up, tarac-tac, tarac-tac, tarac-tac, and so on. After a while the rhythm becomes continuous, and when I speed it up still more, you begin to hear [c] a low noise tone rising in pitch. That means this little period tarac-tac, tarac-tac, which lasted about a second, is now lasting less than one-sixteenth of a second, because a frequency of around 16 cycles per second is the lower limit of the perception of pitch, and a sound vibrating 16 cycles per second corresponds to a very low fundamental pitch on the organ. The [c] timbre of this sound is also an effect of the original rhythm being tarac-tac rather than, say, tacato-tarot, tacato-tarot, which would give the rhythm a different tone colour. You do not actually hear the rhythm anymore, only a specific timbre, a spectrum, which is determined by the composition of its components. Now imagine speeding up the original one-second rhythm on thousand times, so that each cycle now lasts one-thousandth of a second: that will give you a sound in the middle range of audibility, of a [d] constant pitch about two octaves above middle C on the piano. A frequency of 1000 cycles per second, and a particular timbre.[…] What we perceive as rhythm from a certain perspective is perceived at a faster time of perception as pitch, with its melodic implications. You can make melodies by changing the basic periodicity, making it faster or slower for the sound to go up of down in pitch respectively. Within the basic pitch, there are what I call the partials, which are subdivisions of the basic periodicity, and they are represented here by inner divisions making up the original rhythm. These are perceived as the timbre.[134]

Relations of temporal complexity that make up the presentation of a musical idea may be seen in proportional relations according to their greater or lesser pulsative, vibratory regularity. At the presentation of a musical idea, the formal link between regular pulses and pitch, and irregular rhythmic cells and timbre-tone colour may be seen thus reverse structuring the temporal complexity of the musical space, and its depth.

In this sense, the presentation of a musical idea by means of organising pitch-classes, for example, indirectly demonstrates a determined spectral engagement in the regularity of pulse and thus in repetition, whereas the presentation of the idea by means of timbre-class organisation, demonstrates otherwise a spectral commitment to the irregularity of pulse and difference. Either reiterative or differential, the musical idea is thus subject to a graduation, in its presentation, according to its spectral zone of meaning. This completes the previous notion of musical space by indicating that the complexity of the idea is really proportional to its medium of presentation, as the spectral complexity directly refers to that of the idea's composition. It also indicates the depth of the musical idea as a function not only of the composition of repetition that is reflected in the regularity of pulsation, but also of the composition of difference that is reflected in its irregularity.

The compositional research of musical timbre leads to a study of frequency irregularity, which characterises some sound mediums or sound syntheses, and tends to be structured around musical ideas that deal mainly with the time of difference. Since timbre composition is essentially differential, it refers as well to differential ideas, resulting in a need of lyric compositional work. The same may be said about the research of complex rhythms,

134 Stockhausen, *Stockhausen on Music…* , 92.

of polyrhythms, etc., of all sorts of irregular rhythmic elaborations. That is, material irregularity is directly related to ideal irregularity or better to the notion of irregularity *in* the idea.

The discovery of a temporal continuity in sound matter, which is organised in terms of regularities and irregularities, actually *refers* to the temporal continuity of musical idea, to its contractive or expansive formal organisation as time, in terms of repetitions and differences, to its temporal complexity.[135] Departing from the analysis of sound material, Stockhausen opened up a path of temporal widening, a path for complexity, which favours listening to material expressivity rather than to the interpretability of the (musical) concept.

Stockhausen disclosed, I think, a continuity of meaning between different temporal spectra, a continuity of ranges of time that is established between harmony and melody by a principle of metrical proportionality. The harmonic spectrum (pitches, timbres, etc.) could be directly related to the melodic spectrum (metric patterns, rhythmic cells, etc.) by their relative regularity or irregularity of pulsation. As the notions of regularity and irregularity are, in this case, functions of repetition and difference, Stockhausen's harmonic and melodic compositional practice complements Schoenberg's in what concerns specifically the lyricalness of the idea. For Schoenberg, the idea should be conquered and controlled by being securely formed and informed by an ideal (harmonic and melodic) space of conservation and coherence that pertains exclusively to the idea proper, that is, it should constantly be turned into a dramatic and reiterative idea, which is normally presented with a compositional emphasis on articulative and coherent harmonic and melodic images. For Stockhausen, moreover, the idea must be built in a *space of non-conservation* that reflects directly the temporal continuity of sound matter, the deconcentration, as it were, of this matter in non-coherent, continuative harmonic and melodic images. That is because, at heart, the principle of coherence is already given by the sound matter itself, by its temporal plasticity, which makes of regularity and irregularity a single soul, leaving to the composition the discovery of new dimensions of non-coherence.

Whereas, for Schoenberg, difference must be controlled by logic links that are the form of the idea and the cause of its presentation, for Stockhausen, it is repetition that must be broken loose by means of qualitative temporal differentiations emerging from the manipulation of sound matter. Differentiations are ultimately the form of the idea and the cause of its presentation. For Schoenberg, the presentation of the idea happens as a level of its articulation; for Stockhausen, it happens as a level of its continuity. Schoenberg is mostly concerned with the temporality of reason and with the creation of a musical space

[135] Clearly, the musical idea being virtual it is, as idea, temporally multiple and complex. Its contractive or expansive features are not reducible to identities and applicable to 'a thing or to a concept' as we do when we refer to space. The contraction and expansion of the idea are temporal, therefore transitory fluxes, intensities. The expanded or contracted 'something' is a become, a moment or instant of creativity.

of conservation that, despite being relatively complex, is oriented to the spatialisation of the idea — a space that veils the idea's deepest times. For Stockhausen, on the other hand, the temporality of intuition is foremost and the musical space is created as a space of non-conservation, designed for *de-spatialising* the idea, to the discovery of its deepest times.

The musical temporal continuum Stockhausen discovered stretches beyond the plain pulsation to the macroform of presentation. Stockhausen explains that

> if now we slow down the speed of a given rhythm, we come into the realm of form. What is form in music? Well we usually say a musical structure of between the one or two minutes of a piece of entertainment music, and the hour and a half of a Mahler symphony, which is about the longest we encounter in music of the western tradition. […] So, according to the fixed perspective of our tradition form varies between dimensions of around one minute and ninety minutes. This corresponds to 1, 2, 4, 8, 16, 32, 64, 128 — a range of around seven octaves. Amazingly enough, we find a similar seven-octave range within the traditional formal subdivisions of music, from the length of a phrase, the smallest formal subdivision, say eight seconds, to the largest complete section, or 'movement', of about sixteen to seventeen minutes' duration (8, 16, 32, 64, 128, 256, 512, 1024 seconds). So there is a range of about seven octaves for durations from eight seconds up to seventeen minutes. Between eight and sixteen seconds, durations become less and less easy to remember. It has something to do with our perception: If I ask you to compare a duration of 13 seconds with one of 15 seconds, you hardly know the difference. If I ask you to compare a sound of one second with a sound of three seconds' duration, on the other hand, the same difference of two seconds appears enormous. Our perception is logarithmic, not arithmetic, and that is important. Rhythm has its own field of perception and between eight and sixteen seconds there is a transition between our perceptions of rhythm and form. Rhythm and meter are organized in measures, traditionally to a fixed periodicity or tempo for a given movement, say fast, or medium fast, or slow, because everything was based on dancing or body actions, and that's where the music came from. A periodicity of eight seconds is perceived as very slow: we are already entering the region where form begins. Subdivide eight seconds and you have 8, 4, 2, 1, a half, a fourth, one-eighth, one-sixteenth. One-eighth, eight attacks per second, is about the fastest we can play with our fingers: it is a limit determined by our muscles and bodily construction. I could go faster perhaps, to twelve or fourteen, by rolling my hands in a special way, but no more. There again, you see, the range is seven octaves (8, 4, 2, 1, ½, ¼, ⅛, 1/16): its very interesting.[136]

Musical time is fostered above musical space by means of a total temporal integration of timbres, pitches, rhythmic patterns and music macroform. The idea is pinned down favouring musical time, and as a function of it. As previously suggested, musical idea as time refers firstly to concretenesses, while as space it refers to concepts. Schoenberg's and Stockhausen's conceptions of musical idea and of musical presentation are different: for the former, the material must be folded, articulated into a concept derived from the idea; for the latter, this concept *results* from a material unfolding, disarticulation that favours an idea. The concept supplies both the composition of the idea with its presentation and the presentation with its composition.

---

[136] Stockhausen, *Stockhausen on Music… , 94.*

Stockhausen also suggests various criteria for musical composition, valid not only for electroacoustic music. These criteria — all of them very important to the present discussion — attest his commitment to the notion of temporal continuity between sound matter and compositional processes. The first criterion is based on the continuity of different ranges of time, exclusively given by perception itself, as if the sound matter were split and compositionally dissociable in different ranges of time.

As perception is something that evolves and is enhanced by one's attention, the compositional process should be understood as a force for expanding the temporal awareness about things by the things. Stockhausen comments that

> the ranges of perception are ranges of time, and the time is subdivided by us, by the construction of our bodies and by our organs of perception. And since these modern means have become available, to change the time of perception continuously, from one range to another, from a rhythm into a pitch, or a tone or noise into a formal structure, the composer can now work within a unified time domain. And that completely change the traditional concept of how to compose and think music, because previously they were all in separate boxes: harmony and melody in one box, rhythm and meter in another, then periods, phrasing, larger formal entities in another, while in the timbre field we had only name of instruments, no unity of reference at all.[137]

In *Kontakte* (1958), Stockhausen explored the composition of ranges of perception (Fig. 1.1). There, the notion of presentation of a musical idea is turned directly into the idea, into its *moving form*, which is extracted directly from constant changes and transformations of the musical material. About this, he says,

> many of the various sounds in *Kontakte* have been composed by determining specific rhythms and speeding them up several hundred or a thousand times or more, thereby obtaining distinctive timbres. What is interesting about this moment is that if I were to play little bits of the passage one after another, like notes on the piano, nobody would be able to hear the transition that takes place from one field of time perception to another. The fact that I make the transition continuously makes us conscious of it, and this effort of consciousness changes our whole attitude towards our acoustic environment. Every sound becomes a very mysterious thing, it has its own time.[138]

Sound matter is thus presented in the context of the deepening of its own time. Stockhausen searches for a deepening in the perception of the idea *through* the material, as a sort of revelation. This is quite distinct from simply presenting an idea, or an aspect of an idea, because it implies presenting the idea as a whole, as a totality, by linking the idea to the whole spectrum of possibilities available to musical perception, as well as to the will of amplifying of this spectrum. The composition is committed to a demonstration of its own compositional process. It represents an invitation to delve into time: the composition's *theme*, so to say, is the process of musical composition in itself translated in its temporal complexity.

---

137 Stockhausen, *Stockhausen on Music…*, 95.

138 Stockhausen, *idem*, 96.

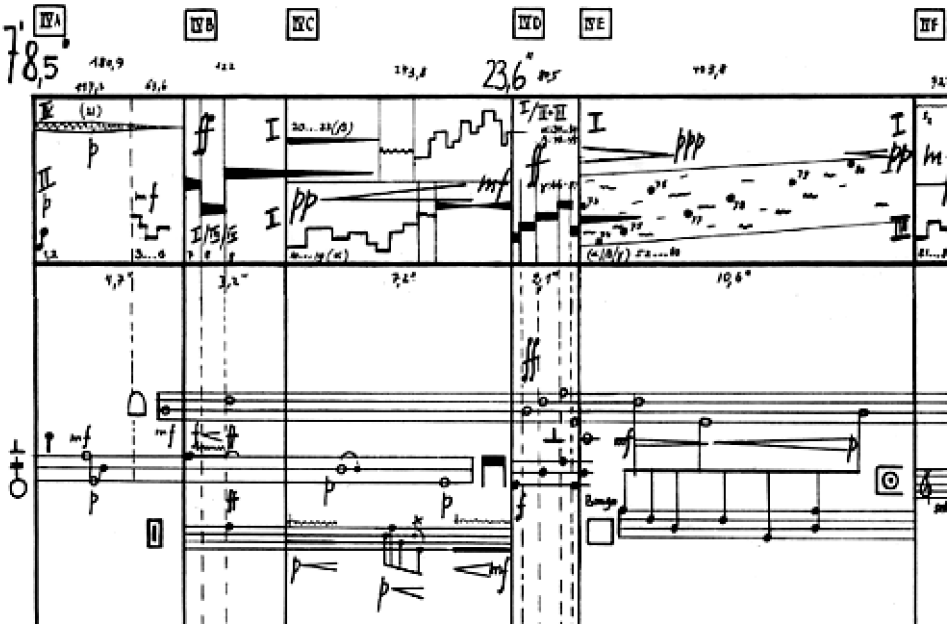


Figure 1.1: *Kontakte* (1958), detail of the score. The reason for the new notation is the complexity of the idea.

Another distinction Stockhausen suggests, which reinforces the first, refers to splitting sounds into their components. For Stockhausen,

> If we understand that sounds can be composed, literally put together, not only stationary sounds which do not change, but also a sound like owww, which changes in the course of its duration; if we can compose these sounds, in the sense of the Latin *componere* meaning put together, then naturally we can also think in terms — note the quotation marks — of the 'decomposition' of a sound. That means we split the sound, and this can be much more revealing in a certain context than hearing a unified sound on its own terms, and comparing it to another which is happening at the same time or immediately before or after it. […] So what has this got to do with composing? What makes this more than just an example from a lecture by an acoustician or a physicist […]? This is the point: whereas it is true that traditionally in music, and in art in general, the context, the ideas or themes, were more or less descriptive, either psychologically descriptive of inter-human relationships, or descriptive of certain phenomena in the world, we now have a situation where the composition or decomposition of a sound through several time layers, may be the theme [the idea] itself, granted that by theme we mean the behavior or life of the sound. And we live the same transformation that the sound is going through. [If] the sound split into six, and if we want to follow all six, we have to become polyphonic, multi-layered beings. And if the sound falls six and a half octaves, you have to go with it, because if you stay put in your time chair, as it were, you won't perceive it. […] So there you have it: the theme of the music, of *Kontakte* itself, [its idea], is the revealing of such processes, and their composition.[139]

The presentation of the idea is once again linked to its compositional process, by elaborating the idea exactly in what it represents, differentiation and revelation of *other times*.

[139] Stockhausen, *Stockhausen on Music…* , 97.

A deep commitment to multiplicity, to the notion of different world-views, is present. Stockhausen sees his music ideally engaged in the role of revealing different temporal nuances. His musical ideas are therefore deeply continuative and differential, accomplished in a perspective of a mobile time that is structurally composed as well as decomposed in many layers and zones of temporal delimitation, that is preponderantly lyrical.

The third criterion suggested by Stockhausen concerns, more concretely, the real spatiality of the presentation of the idea, which is conceived in terms of displacements of the sound source. Referring to this criterion in the composition of *Kontakte*, Stockhausen comments that

> Multi-layered spatial composition means the following: that only does the sound move around the listener at a constant distance, but it can also move as far away as we can imagine, and also come extremely close. […] At the end of the section in *Kontakte* where the sound is split into its separate components […] there are dense, noisy sounds in the forefront, covering the whole range of audibility. Nothing can pierce this wall of sound, so to speak. Then all of a sudden, I stop the sound and you hear a second layer of sound behind it. I cut it again, like with a knife, and you hear another layer behind that one, then again. Building spatial depth by superimposition of layers enables us to compose perspectives in sound from close up to far away, analogous to the way we compose layers of melody and harmony in the two-dimensional plane of traditional music.[140]

The spatialisation of sound sources re-elaborates the meaning of musical space, making it more concrete than the Schoenbergian idealised one. The presentation of the idea is here actually and necessarily spatial. Its spatialisation makes the compositional role of musical continuity and its relationship with the purest temporal creative domains even more evident at the presentation of the idea, converting in this way actual spaces into times.

Finally, the last important criterion suggested by Stockhausen concerns the continuity between sound and noise. As he says,

> if I change the periodicity of the sound a little faster, a little slower, or to be more precise, make the duration of each period a little shorter or a little longer, then the sound starts oscillating around a certain middle frequency, and all the half vowel of half consonant components, which are already fairly broad-band, begin to break-up. So the continuum between sound of fixed pitch and noise is nothing more than that between a more and less stable periodicity: the noisiest noise being the most aperiodic. This discovery of a continuum between sound and noise was extremely important, because once such a continuum becomes available, you can control it, you can compose it, you can organize it. […] Nowadays we have various electronic filters and modulators available to transform a steady sound into one is more aleatoric in its inner structure. As it has become possible to define a continuum between sounds and noises, completely new problems have come up for when we compose or play intuitively, because we have no training whatsoever in balancing tones and noises.

[140] Stockhausen, *idem*, 106.

> […] The integration of noises of all kinds has only come about since the middle of this [last] century, and I must say, mainly through the Discovery of new methods of composing the continuum between tones and noises. Nowadays any noise is musical material, and it is possible to select a scale of degrees from sound to noise for a given composition, or choose an arbitrary scale, from the complete range. […] From this we discover new principles of musical articulation, for example that I worked with forty-two different scales in this particular work [*Kontakte*]. If you know the piano has a half-tone scale, twelve steps to the octave, then imagine forty-two different scales, where the octave is divided into thirteen, fifteen, seventeen, twenty-three steps, and so on. I have used a scale of scales, where the ratio of increase in the step size is constant from one scale to the next, and each particular scale is strictly associated with a particular family of tones and noises.[141]

Stockhausen argues for a new way of conceiving the relationship between harmony and melody directly based on sound properties, from which the composition (and thus the musical idea) emerges. Musical form is in fact directly given, inspired by the temporality that is internal to the things and not the opposite. Stockhausen says that

> We have discovered a new law of relationship between the nature of the sound and the scale on which it may be composed. Harmony and melody are no longer abstract systems to be filled with any given sounds we may choose as material. There is a very subtle relationship nowadays between form and material. I would even go far as to say that form and material have to be considered as one and the same. I think it is perhaps the most important fact to come out in the twentieth century, that in several fields material and form are no longer regarded as separate, in the sense that I take this material and I put it into that form. Rather, a given material determines its own best from according to its inner nature. The old dialectic based on the antinomy — or dichotomy — of form and matter has really vanished since we have begun to produce electronic music, and have come to understand the nature and relativity of sound.[142]

Considering these arguments — that is, the perception as ranges of time; the possibility of splitting sounds into their components, and hence how the graduality of this operation and the many compositional functions that stem from it could be considered as the main idea of a composition; the real spatialisation of musical presentation and its artistic elaboration; and also the continuity between sound and noise —, Stockhausen is in accordance with the majority of temporal notions here suggested. Therefore, he complements the notions elaborated by Schoenberg on the problem of the musical idea, and makes viable a new interpretative path: that the musical idea is creatively composed *between* time and space, that its medium, which is normally called musical space simply, is actually made of a two-fold, heterogeneous rhythmical movement that advances simultaneously towards its constitution (as an articulated spatial notion that articulates the notion of time in us) and its annihilation (as an unarticulated temporal notion that inarticulates the notion of space in us).

---

141 Stockhausen, *Stockhausen on Music…* , 93, 110.

142 Stockhausen, *idem*, 111

IV – MUSICAL REPRESENTATION

Individual and social musical times

We have noticed earlier in this chapter that we *make sense* of time individually, but always measuring, so to say, our subjective temporal experiences from common temporal grounds or horizons. Our temporal experiences, kept intimately, cognised in forms of 'temporal disregard or conformism,' of 'celebration or transgression,' are always somehow socially shared: we represent time to ourselves but also from others and to others. We communicate time.

Addressing this temporal aspect, Stuart Hall in *Cultural Representations and Signifying Practice*[143] points out that since meaning is fashioned by people in the context of their culture, representation can be conceived creatively as a process of exchange of meanings. This adds a new perspective to the common-sense view that representations are merely intellectual objects representing, moving towards a focus on the relationships and processes through which these objects are produced, valued and exchanged.

In my view, there is a number of social modes for the representation of time, among which are two main orientations. On the one hand, is a mode of representation guided by local or community necessities, in which the values of temporal representation exchanged obey determinate rules of social balance. Representations exchanged confirm each other and allow people to have a sense of temporal stability and order. This, I argue, is a *centripetal* social mode of representation of time that reflects its centricity on its representational products, which are temporally anchored by the taste of the many. On this, W. Mitchell says that "it is impossible to divorce representations from culture and the society that produces them. In the contemporary world there exist restrictions on subject matter, limiting the kinds of representational signs allowed to be employed, as well as boundaries that limit the audience or viewers of particular representations."[144]

On the other hand, is a mode of representation guided by universal aims, which is, of necessity — to the local community point of view — temporally transgressive, because it ideally favours an all-embracing (and sublime) superior temporal order. Representations exchanged may eventually discord and antagonise, defying people to reorient their temporal routines. This *centrifugal* social mode of representation has no definite temporal anchors and cannot ever be fasten by the taste of the many. Here, amid shared temporal novelties, we might find place for the manifestation of genuine individual representations of time: the universal time (of mankind) is held by the few.

---

143 Stuart Hall (ed.), *Cultural Representations and Signifying Practice* (London: Open University Press, 1997).

144 Willian J. T. Mitchell, "Representation," ed. Frank Lentricchia and Thomas McLaughlin, in *Critical Terms for Literary Study* (1990): 66-79.

There exists an infinite socially extended representational tissue that temporally anchors and destabilises us at the same time in different areas of our life. The complexity of this infinite and socially transcendent representational fabric allows, I suggest, for a kind of Jungian collective temporality, a sort of collective temporal unconsciousness populated by a number of individual archetypical temporal traits.

An archetypical example is found in the individual time that produces superficial representations. The object of representation is represented as it appears; it *is* its surface. Here, representation does not ignite quests or doubts, and time is definite and given, anchored by its own internal routines. This, I argue, is the archetypical time of repetition. Looking round at things, as Bergson would say, instead of *into them*, provides us the opportunity to project on them our pre- or misconceptions: we repeat generalities, we remake conceptual identities, by fixing the time of things around them. An alternative archetypical example is the individual time that goes further now into the thing in order to achieve a superior transcendental image, in order to *stretch* the scope of its concept, operating normally via manifold and multidisciplinary interpretations — a discipline advocated by Deleuze when discussing the creative power of Ideas.

It seems that living in society depends on a constant play of temporal balances and unbalances, on a permanent temporal adjustment that grants individual processes of representation a common social status to agree or to discord with. The individual time is permanently affected by contingent reasons, becoming either ampler and freer when affected by unusual temporal orientations, or completely transformed if it is merged into innovative ones. Finally, it seems that, by becoming ampler, freer and transformed, art may be understood as if it really were a mechanism of expression for the freedom that dwells between and beyond consolidated ideas of the world, actually a whole vehicle of *expansion* for such ideas.

Souvtchinsky, Langer and Brelet

The problem of musical representation would be immensely illuminated by these notions. There are distinct perspectives on the matter, such as P. Souvtchinsky's, who, according to Edward Campbell — arguing in *Music After Deleuze* the value for music of Deleuze's philosophy of time —,

> writes in 1932 of an aesthetic conjunction linking Bergson, Proust and Debussy, honoring the composer as the first to extend the musical instant in terms of sound duration. Distinguishing between 'psychological time' and 'ontological' or 'real time,' in which the multifarious manifestations of the former are rooted ontologically in the latter, it is suggested that music provides 'one of the most pure forms of the ontological sensation of time.'[145] While individual composers present their idiosyncratic experiences of musical time, the spectrum

[145] Pierre Souvtchinsky, *Un siècle de musique russe (1830-1930)* (Arles: Actes Sud/Association Pierre Souvitchinsky, 2004), 241-243, *apud* Edward Campbell, *Music after Deleuze* (London: Bloomsbury Academic, 2013), 108.

> of temporal possibilities is typified generally by the alternative of the chronometric (ontological), characterized by a sense of 'dynamic calm,' and the chrono-ametric (psychological), which relates to the 'secondary notation of primary emotive impulses.' Stravinsky and Wagner are identified as respectively exemplifying each tendency.[146]

For Souvtchinsky, the piece of music represents the realisation of its composer's temporal experiences.[147] He suggests a functional approach, in which an ontological time, related in his view to a primary, inner awareness of a *real* objective time, is opposed to a psychological time, which would concern otherwise a elusive, subjective perception of the passage of time, whose qualities would fluctuate with changing emotions.

Souvtchinsky's contrasting temporal modes are placed between a socially shared outer time (extensively allocated outside its direct experience, even though still constituting and depending on the flux of one's individual perception) and an individual inner temporality (which is entirely intimate, subjective and necessarily intensive). In Souvtchinsky's view, the collective way of sensing time (and also thinking time) reflects what time truly is, as he places the truthness of time very objectively on a reliant sense of *dynamic calm*, shared by the many. On this basis, Souvtchinsky suggests that the intensive, inner temporal sense of each individual is, of necessity, psychologically illusory, false and, in any event, socially transgressive. Souvtchinsky develops his temporal notions from a common construct: that truth is unchangeable; that in order to seek, and luckily find, truth (the true meaning) we must avoid the circumstance of the particular case. Indeed, how could the truthness of time be grounded on one's intimate temporality since it fluctuates immensely according to one's particular emotions? His answer: in order to be real, time must be dynamically calm, regular and balanced.

Souvtchinsky calls *chronometrique* those creative musical processes oriented by his notion of ontological time. He considers that musical works produced by this kind of compositional process allow for composers and interpreters (performers, listeners, analysts, etc.) to communicate a feeling of satisfaction. Based on this perspective of other's satisfaction, this process would allow people to integrate their temporal perceptions in music by means of a shared modality of musical time, somehow expressively and interpretatively reflected at the surface of the musical piece. Souvtchinsky's chronometric time works thus as a model social time for composers and performers, listeners, a time characterised by a feeling of gratification, social conjunction and balance, of a greater regularity.

Conversely, *chrono-ametrique* creative musical processes, oriented by his notion of psychological time, would produce unbalanced, *dissociated* musical works. They would be permeated by all sorts of interferences and dissimilarities, by social deviation, as they would have the individual temporality prevailing against the collective time.[148]

---

[146] Campbell, *idem, ibidem.*

[147] Pierre Souvtchinsky, "La notion du temps et la musique," in *Revue Musicale* 20 (1939): 310-20.

[148] Deborah N. Birch, *Time in New Music* (MA dissertation, Brigham Young University, 1979), 9.

The dialectics of *chronometrique* and *chrono-ametrique* musical times reflects an old discussion, which stems from Heraclitus's and Parmenides's different views about the essence of time. Heraclitus sustained that the only true reality would be one of perpetual change, whereas Parmemides upheld that change in itself is an illusion and only what is permanent has substance. Souvtchinsky unquestionably privileges Parmenides's point of view.

Even if I do not agree with Souvtchinsky's functional approach, since for me the proper existence of musical time depends on a mutual influence as well as on a perpetual and rhythmical relationship between both notions (permanence and change), what strikes me the most in Souvtchinsky's arguments is that he consciously contrasts permanence and change in the creative arena. That is, in his view, even in opposition to ontological time, and illusory, psychological time is still a creative option, and in some sense acceptable and necessary.

Thus for Souvtchinsky, music does not only provide a psychological, fluctuating temporal mode, but it also 'fluctuates compositionally,' so to say, between two temporal realms, which, instead of being distinguishable only by their power of producing a sense or a feeling of gratification and its opposite, are actually characterized by the *intensity* of their social and cultural attachment. Certainly, we are not internally moved to a feeling of gratification and dynamic calm by the piece of music only. We are rather influenced in this or another way *by means* of the piece; and even more by the contrasting temporal attributes and qualities it evokes in its relation to our daily life. Life is, at last, the creative arena in which permanence and change, regularity and irregularity, conjunction and dissociation, ontological and psychological powers exchange their intensities. In life as in music, so it seems, both ways are necessary.

Another perspective is Susanne Langer's, who, in *Philosophy in a New Key*, claims that "music is preeminently non-representative even in its classical productions, its highest attainments," but exhibits pure forms. She affirms that

> it exhibits pure form not as an embellishment, but as its very essence; we can take it in its flower—for instance, German music from Bach to Beethoven—and have practically nothing but tonal structures before us: no scene, no object, no fact. […] There is no obvious, literal content in our way. If the meaning of art belongs to the sensuous percept itself apart from what it ostensibly represents, then such purely artistic meaning should be most accessible through musical works.[149]

Langer's claim that music is non-representative depends obviously on the broader context of her discussion of meaning in art. She implies that music is non-representative of things or occasions *as that*, their images, their connotation, their materiality. She points out, otherwise, that it does represent something from itself, that is, a form of percept: music represents the way through which we represent it. It could be interpreted that Langer means by that of the compositional process. This strange observation may be better understood

[149] Susanne Langer, *Philosophy in a New Key* (New York: New American Library, 1954), 169.

in the context of emotions. For Langer

> music is formulation and representation of emotions, moods, mental tensions and resolutions — a 'logical picture' of sentient, responsive life, a source of insight, not a plea for sympathy. Feelings revealed in music are essentially not 'the passion, love or longing of such-and-such an individual,' inviting us to put ourselves in that individual's place, but are presented directly to our understanding, that we may grasp, realize, comprehend these feelings, without pretending to have them or imputing them to anyone else.[150]

The way we approach music, our representation of it, unveils (or not) the feelings it is able to reveal. When we delve into it, we may see ourselves relatively detached amid two temporal realms, the one we find in the piece of music and the one we project on it. We find instruction in Langer's claim that music is 'a logical picture of sentient life.' This claim is perfectly rhythmic. We also believe that the 'feelings revealed in music are presented to our understanding,' though *not only*, since our understanding is also presented to it, informing its formulations.

Susanne Langer is proposing a similar approach to the likeness of Souvtchinsky's chronoametric musical time. She sustains that a piece of music creates a subjective temporal image which could be considered (and measured) by the proper motion of musical forms presented at the surface of the musical piece. In her view, such motion objectively *draws* or outlines this temporal image.

These notions of Langer are built from the perspective of the musical piece and its motional substance, whose sense is entirely subjective, individual. Langer's musical time is symbolic, in the sense that it creates temporal images. However, in a Kantian manner, Langer's symbolic musical time is of necessity 'socially blocked,' in the sense that it is formed as a conscious intimate image that, however ordinarily experienced by everyone, always prevails over the abstraction of a collective regulatory time. Clearly, the social arena is here excluded.

Langer's musical time seems more complex than Souvtchinsky's. Her intuition is wider because she addresses a subjective-psychological time having in mind, it seems, that this time has a complex, multi-dimensional quality, a depth, a volume, a dense completeness able to mirror, to represent the transitoriness of musical forms fully.

Unlike Souvtchinsky, Langer follows the Heraclitean conception that change has primacy over permanence, and consequently, that the individual prevails over the collective, the particular over the generic. If, on the one hand, Souvtchinsky gives us a dialectic vision of musical creativity, by assuming the regulatory importance of social time over individual time; Langer, on the other hand, provides a deepening of this dialectic vision as she assumes the individual temporality, not the collective, as her point of reference, and thus commits to the creative importance of change over permanence.

However, it is interesting to notice in Langer her stance towards the substance of change,

---

[150] Langer, *Philosophy in a New Key*, 180.

a substance which, partially reflecting Bergson's thought, is fundamentally heterogeneous and manifold, and made of innumerable layers of meaning. It only partially reflects it precisely because Bergson contemplates the essence of this heterogeneity *beyond* the forms. For him, the meditation on the movement of (a) form is necessarily a contemplation of spatiality, of extensiveness. To be properly Bergsonian — as the arguments in the present thesis intend to be — Langer's conception of musical time would have to consider not exactly the movement of musical forms as the actual creative datum of a subjective, symbolic image of time. Instead, this conception should be more intensive, advancing over and beyond this movement in order to observe how this movement actually becomes a movement *within* the subject, because fullness of time, in Bergsonian terms, transcends the image of movement (of the thing) in favour of the duration that is informed, in a complementary manner, by the concreteness of the thing and the whole of our past experiences.

Gisèle Brelet's mode of musical representation is even more complex. Her system encompasses Souvtchinsky's ontological and psychological temporal modes in an immanent metaphysics of music, deducing all essential parameters of music from *le temps musical*. This is not properly a derivative temporal mode, but a particular temporal experience, unique to music, in which both *chronometrique* and *chrono-ametrique* creative processes are offered, integrally, as temporal revelation. She proposes that the whole musical work is a structure imposed on time by a composer which is only meaningful as a function of time itself, because in it — in the musical work — is expressed an experience and a conception of a primordial time that it takes as its secret mission to reveal to us.[151]

Brelet's musical time seems a composite of Souvtchinsky's and Langer's. Brelet still links an ontological primordial time to a derivative psychological applied time, but instead of being clearly opposed, they are rather quite connected. Contrary to Langer's and similarly to Souvtchinsky's ideas, Brelet affirms the existence of an original and extensive time which is *there*, Kantianly, beyond our understanding. Langer's time, though not extensive, is not a social time but rather a time in itself, a time which exists beyond history and culture, a time which is set beyond mankind. On the other hand, contrary to Souvtchinsky's and similarly to Langer's ideas, Brelet affirms the impossibility of accessing directly this extensity except by means of a subjective intensity given by music as a type of secret revelatory mission.

Brelet decides for music as the proper language of time, and proposes that there is not a better way of sharing and exchanging individual experiences and conceptions of time. The arguments here discussed share with Brelet's a same perspective of musical time, differing only in what concerns the rhythmicality of musical time. In this context, Souvtchinsky's ontological time assumes the image of a temporal whole, complex and heterogeneous, hence diverse and full of possible distinct temporal actualisations. The *chrono-ametrique* creative process is one of these possibilities. Otherwise, time in itself

151 Brelet, *Le temps musical*.

is really not beyond our understanding, since we depend on exchanging and developing our intellectual powers by means of it. Agreed, we can do that musically, with the simple difference that our musicality emerges *simultaneously* to the manifestation of that exchange.

All in all, Souvtchinsky proposes a permanent social time, which is deviated by a changing individual time. Langer proposes that the changing individual time is not a deviation from permanence, but actually the norm of time. Brelet, in turn, proposes that the individual time is, in any case, a *parcel* of a comprehensive and totalising time — so each piece of music is a testimony of a rather thin layer of time extracted from the total complexity of *Time* as it is, a time though beyond our comprehension. In all these cases, musical time is considered as arising from the relation between the individual and the many.

When Bergson's philosophy of time is fully considered, the existential expression of time neither relies exclusively on the notion of regularity (and also of homogeneity, linearity, consonance, etc.) as an index for the normative temporal conduct of the many; nor on the notion of irregularity (and of heterogeneity, non-linearity, dissonance, etc.) as an impulse for the individual that extrapolates a collective temporal rule, as suggested by Souvtchinsky and Brelet. This existential expression of time relies neither exclusively on the notion of regularity as a shared temporal background onto which subjective temporal images are delineated by means of manifold musical forms, nor on irregularity as the source for the emergence of *le temps musical*, as suggested by Langer and by Brelet.

Bergson's philosophy is related to all these notions but *simultaneously* and in many complex ways. It includes the tension between the few and the many, but in all its complex relations with the 'being of time,' with the *durée réelle* — the continuous life of memory that extends transcendentally, linking everything and everyone, joining the whole past of matter and memory to the present experience.

Without this survival of the past into the present, there would be no actual duration but only instantaneousness, and hence no place for individual or collective time, no place for time at all. So, in the end, these very notions of individual and collective time may be Bergsonianly extrapolated, either by excess or by default, to a complete merging of the temporal dynamics of the few and the many into an all-encompassing duration.

In Bergson's thought, both individual and collective temporal qualities emerge from the-same complex differential temporal field, which changes constantly depending on *who* emerges, individually or collectively, and *how* this emergence happens. These notions, which are apparently scattered, because they answer to distinct individual and collective perspectives, may be finally integrated into a Deleuzian-like notion of musical representation, into a complex *representational rhythmicality*, in which a 'disregardful,' individual notion of musical time, caused by a strong attachment to regularity and too superficial musical traits, may be seen archetypically linked to a 'conformist,' collective notion of musical time, which conforms that attachment to a given social, cultural or historical con-

text. And into a representational rhythmicality in which a more conscious 'celebratory,' individual notion of musical time, provided by a fearless curiosity about irregular and deep compositional constructs, should be seen as related to a 'transgressive,' collective notion of musical time, that is powered by diversity, by the need to share among the many the depths, the originality, of each single individual musicality.

Chapter two
Rhythmicalization

On complexity and simplification

In every domain, we are done believing in a hierarchy that would go from the simple to the complex, according to the matter-life mind scale. It could be on the contrary that matter is more complex than life, and that life is a simplification of matter. It could be that vital rhythms and durations are not organised and measured by a spiritual [spirituelle] *form, but take their articulation from the outside, from molecular processes that traverse them. In philosophy as well we have abandoned the traditional coupling of an undifferentiated thinkable matter with categorical forms of thought or grand concepts. We are trying to work with carefully elaborated thought materials to render thinkable those forces that are not thinkable by themselves. In philosophy it is no longer a matter of an absolute thought such as classical philosophy wanted to embody, but rather an impossible thought* [...] *It is the same story for music when it elaborates a sonorous material to render audible those forces that are not audible in themselves. In music, it's no longer a matter of an absolute ear but rather an impossible ear that can alight on someone, arise briefly in someone.*[1]

G. Deleuze

On I am and I

We cannot say with Descartes, 'I think, therefore I am. I am a thing that thinks.' If it is true that the I think is a determination, it implies in this respect an indeterminate existence (I am). But nothing so far tells us under what form this existence is determined by the I think: it is determinable only in time, under the form of time, thus as the existence of a phenomenal, receptive and changing ego. I cannot therefore constitute myself as a unique and active subject, but as a passive ego which represents to itself only the activity of its own thought; that is to say, the I, as an Other which affects it. I am separated from myself by the form of time, and nevertheless I am one, because the I necessarily affects this form by carrying out its synthesis and because the Ego is necessarily affected as content in this form. The form of the determinable means that the determined ego represents determination as an Other. It is like a double diversion of the I and the Ego in the time which relates them to each other, stitches them together. It is the thread of time.[2]

G. Deleuze

---

[1] Deleuze, "Conference Presentation on Musical Time."

[2] Gilles Deleuze, *Kant's Critical Philosophy*, viii.

This chapter elaborates the notion of rhythmicalization, which is explained as an all-encompassing rhythmical power, co-responsible for the emergence and manifestation of the creative impulses that ground a compositional process, as well as of the distinct rhythmical ideas that compose the many levels of temporal complexity in this process.

Musical time is musical as such, I suggest, because it is rhythmicalized. Rhythmicalization happens by means of many distinct actions. In discussing these actions, this chapter readdresses some previous notions in order to contextualise the necessary temporal domain in which rhythmicalization occurs, and also the temporal complexity informed by this temporal domain as rhythmicalization effectively happens. The chapter also presents a deeper account of the main rhythmicalization hypotheses to be further elaborated in chapter three.

I – Temporal Domain

The rhythmicality of the idea

Following Bergson, I assume that ideas are forms of multiplicity, a force simultaneously turned to, and composed by, the absolute non-determination of the infiniteness of time and the relative temporal finitude of diverse levels of determination.

Bergson claims that ideas are

> [...] pure recollections summoned from the depths of memory, [which] develop into memory-images more and more capable of inserting themselves into the motor diagram. To the degree that these recollections take the form of a more complete, more concrete and more conscious representation,[3] they tend to confound themselves with the perception which attracts them or of which they adopt the outline.[4]

In Bergson's view, representation is situated somewhere in a mid-point between the purity of deep memories and the purity of matter. Representation is thus temporal, a process that gradually progresses towards a critical 'point of return', a marvellous moment of conscious emergence, of conjunction, in which the idea represents itself in the thing(s), as the thing(s) is then seen, as well, represented by it. In this view, representation is surrounded, as it were, by a dynamic creative field, by *sensibility*.

In a Bergsonian perspective, one's sensibility is eternally turned to the infinitude and complexity of causes that generate the actual experience. We are surrounded by infinite chains of actions, by immeasurable chains of outer impressions, of which we are presented (con-

[3] Thus always considering that representation results from a multiple and heterogeneous temporal process, emerging at different levels of complexity.

[4] Bergson, *Matter and Memory*, 125.

sciously or not) the most immediate bit only. We are constantly touched by their temporal immediacy, gradually organising them in *expansible or contracting manners*, in nascent motor impressions capable of scanning, of resonating them, to the point that their fundamental rhythmic aspect is intimately emphasised.

Now, in this way, according to Bergson,[5] as the infinitude of matter encounters the infinitude of memory, matter and memory exchange (virtually infinite) possible meanings; meanings that depend on the quality of that scanning, that is, on its relative *openness or closeness*, on the presence or absence both of sensory apparatuses and of memory. Meaning is thus according to the depth of one's reality, to his or her reach or power of penetration into the potential infinitude of matter and memory, many times intangible.

Sensibility is, at last, a power dedicated not only to receiving the experience of things as they are, but also to carrying and keeping this experience as much as possible immaculate at the depth of memory. It surrounds representation and enables diverse experiences to be temporally merged, be seen through one another. It is like a *dynamic temporal field* that circumvents, with no ruptures, a rational nucleus. Its dynamics links everything temporally, past, present and future(s).

While sensibility is a vital force turned to the infinitude of time (of things in themselves and in ourselves) and its object is the sublime, our *capacity of understanding*, otherwise, is a power turned to varying levels of temporal finitude, to the generalization of the particular. Together, I argue, sensibility and understanding form a rhythmic cognitive apparatus, which stretches, expands and contracts temporally, as it were, positively or negatively, depending on some important causal factors.

Important in these dynamics is that the more penetrating the sensibility, the more *intense* is the access to the genesis of the idea, to its 'source'. In this respect, the more intense the access is, all the better; because *intensity defines a temporal territory*, it delimits the temporal map available for the work of our understanding. In other words, the more penetrating the power of sensibility is, the broader and consequently the freer the power of understanding — it is this simple assertion that grounds Bergson's doctoral thesis, *Time and Free Will*,[6] and, it could be argued, his philosophy as a whole.

Sensibility can be conceived, consequently, as the measure of a deepening into the real, while understanding is the measure for choosing the 'better' reality according to the actual necessity and circumstance. The rhythmicality of the idea will therefore be distinguishable both by the strength of penetration of sensibility into the real and by the freedom of the conscious act in the perspective of this penetration.

The work of sensibility thus always points toward freedom by deepening the reality of things, so that in this deepening a significant number of intelligent, creative alternatives

[5] Bergson, *Matter and Memory*, 23, 25, 38, 145, 164, 168, 170, 173.
[6] See also Deleuze, *Difference and Repetition*, 50-52.

of representation may be possible. Essentially, there is only *one idea*, the real, which is the deepest idea possible in any a given situation. This idea works, I argue, as a fundamental temporal flux grounding the emergence of diverse understandings. This explains why the work of sensibility and understanding cannot be isolated, or exclusively delimited, by the perceived or represented thing.

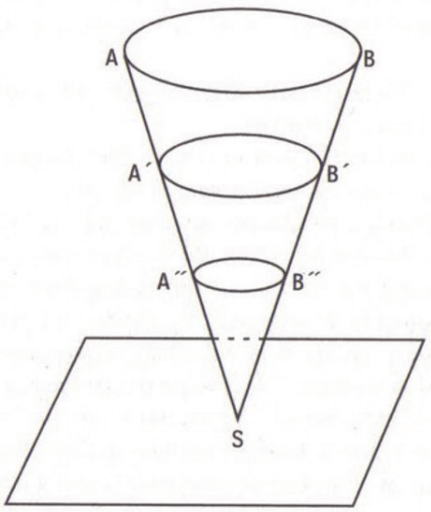


Figure 2.1: Original illustration from Bergson's *Matter and Memory*. Bergson demonstrates the creative movement of sensibility. This movement would occur in two directions, expanding towards time, and contracting towards space: "The essence of the general idea, in fact, is to be unceasingly going back and forwards between the plane of action and that of pure memory. [...] At S is the present perception that I have of my body, that is to say, of certain sensorial-motor equilibrium. Over the surface of the base AB are spread, we may say, my recollections in their totality. Within the cone so determined, the general idea oscillates continually between the summit S and the base AB. In S, it would take the clearly defined form of a bodily attitude or of an uttered word; at AB, it would wear the aspect, no less defined, of the thousand individual images into which its *fragile unity* [my stress] would break up. And that is why a psychology which abides with the *already done*, which considers only that which is made and ignores that which is in the making, will never perceive in this movement anything more than the two extremities between which it oscillates. [...] But the truth is that the general idea escapes us as soon as we try to fix it at either of the two extremities. [...] This amounts to saying that between the sensorial-motor mechanisms figured by the point S and the totality of the memories disposed in AB there is room, for a thousand repetitions of our psychological life, figured by as many sections A'B', A"B", etc. of the same cone. [...] in point of fact, the normal self never stays in either of these extreme positions [S and AB]; it moves between them, adopts in turn the positions corresponding to the intermediate sections, or in other words, gives to its representations just enough image and just enough idea for them to be able to lend useful aid to the present action."[7]

It is in the perspective of this creative field (Fig. 2.1) that Bergson develops his notion of motor-diagram. *Motor-diagrams are unconscious or 'translucent cognitive interfaces',*[8] intangible callers of eternal, ideal multiplicities. They are to be thought as the *frame* of sensibility, and situated amid one's sensibility and one's motor centres.

Using an instance taken from natural language, Bergson claims that as the needed coordination of motor tendencies with their motor accompaniment (the diagram) happens, utterances would be ready for the embodiment of ideas. He considers as object an

> interlocutor whose [ideas] develop within his consciousness into auditory representations that are then materialised into uttered words. So, if we are right, the hearer places himself at once in the midst of the corresponding ideas, and then develops them into acoustic memories, which go out to overlie the crude sounds perceived, while fitting themselves into the motor diagram. To follow an arithmetical addition is to do it over again for ourselves. To understand another's words is, in like manner, to reconstruct intelligently, starting from

[7] Bergson, *Matter and Memory*, 162-163.
[8] Bergson, *idem*, 161.

> ideas, the continuity of sound that the ear perceives. And, more generally, to attend, to recognize intellectually, to interpret, may be summed up in a single operation whereby the mind, having chosen its level, having selected within itself, with reference to the crude perceptions, the point that is exactly symmetrical with their more or less immediate cause, allows [the self] to flow toward them.[9]

It follows, according to Bergson, that recognition operates in a sort of symbiotic temporal mirror, in which passive actions — lying near the organs of sensibility as motor-diagrams, as potential or proto-ideas — reflect active actions — actual ideas enforced in *reiterative or differential temporal fluxes* that provide those proto-ideas their representational substance. That is, representation works by reflecting two temporal flows, at the meeting point of two moving systems.

Yet, in the context of language, Bergson questions (but, in this case, the questioning could be transferred to music) whether

> do we passively wait for the impressions to go in search of their images? [Or] do we not rather feel that we are adopting a certain disposition, which varies with our interlocutor, with the language he speaks, with the nature of the ideas he expresses — and varies, above all, with the general movement of his phrase, as though we were choosing the key in which our own intellect is called upon to play? The motor diagram, emphasizing his utterance, shows our thought the road. It is the empty vessel, which determines, by its form, the form the fluid mass, rushing into it, already tends to take.[10]

Each side of this meeting offers a particular fundamental rhythmic potency that cannot be frozen in order to be analysed. Bergson's argument may explain why Deleuze holds that the positivity of difference in itself (see below) cannot be subordinated to the identity of the concept, and why such subordination happens only later, in response to the qualitative and formal aspects of the object of representation, according to a complex rhythmic process.

The idea in itself would be, thus, perfect and potentially multiple in relation to the perfect multiplicity (of cases and dates) of the thing that calls it. But the idea would be however rarely perfectly representable, because representation, as a critical moment, happens not once and for all, but *progressively and retroactively*, that is, rhythmically, and varies in accordance with one's level (or depth) of attention (i.e. the level of consciousness), thus in accordance with one's greater or lesser subjective awareness.

Devoting to a deeper memory the purity of time and assuming varying levels of subjective awareness as a critical representational factor, Bergson sets a temporal domain, which has as its obvious limits, on the one hand, the purity of time (which seems to be infinite and intangible) and, on the other hand, many levels of 'temporal impurity'.

For Bergson, matter and memory actually form an indivisible system. The deepness of memory corresponds perfectly to the reality of things *in the self, as they are* in themselves,

---

[9] Bergson, *Matter and Memory*, 117.
[10] Bergson, *idem*, 121.

which implies that the purity of time in us actually corresponds to the purity of time of things themselves: the depth of memory in us reflects the depth of memory in nature. Pure memories are thus concrete, reflecting integrally the concreteness of life; and since this concreteness is purely temporal, the difficulty here is how concreteness might be purely temporal. On this we may add that any step further from the purity of time is as well a step further from the particular towards the general, by referring to the problem of difference in itself.

Deleuze argues that the purity of time is essentially composed by difference in itself.[11] For him the purity of time excludes representation: it is always poetically ahead, always moving, always escaping from the principles of reason. He indicates that "difference in itself appears to exclude any relation between different and different which would allow it to be thought; [pure] difference is not and cannot be thought in itself, so long as it is subject to the requirements of representation."[12]

Difference in itself thus stands as an infinite, unreachable poetic *space of non-conservation* that is cause and object of cognition. Deleuze argues that philosophy has always tried to grasp or conquer difference in itself — the infinite — by creating and applying techniques of reasoning that contract or expand representation to its smallest or largest versions. So much that

> with Leibniz, representation conquers the infinite because a technique for dealing with the infinitely small captures the smallest difference and its disappearance. With Hegel, representation conquers the infinite because a technique for dealing with the infinitely large captures the largest difference and its dismembering. […] But what is the point of making representation infinite? It retains all its requirements. All that is discovered is a ground which relates the excess and default of difference to the identical, the opposed, the analogous and the similar. […] The entire alternative between finite and infinite [representation] applies very badly to difference [in itself], because it constitutes only an antinomy of representation.[13]

Nevertheless, the Deleuzian argument changes drastically when difference in itself is poetically lived, as it were, in a Bergsonian way, throughout and beyond the process of the emergence of representation, that is, when difference in itself is progressively turned into ideas and then into concepts.

This solution brings a primary, intensively equivalent positivity to difference and repetition as ideas. With repetition, on the one hand, this positivity is a necessary condition for the emergence of identities. With difference, otherwise, this positivity is necessary to holding, as it were, difference back into its original freedom, so that difference (and its creative power) is consequently projected *in between* the identity of concepts. Pointing out this last image, Deleuze says that

---

[11] See, as reference, chapter 1 of Deleuze's *Difference and Repetition.*

[12] Deleuze, *Difference and Repetition*, 330.

[13] Deleuze, *idem*, 131, 132.

> ideas are not concepts […], instead of representing difference in itself by subordinating it to the identity of concepts, and thereby to the resemblance of perception, the opposition of predicates and the analogy of judgment, ideas liberate [difference in itself] and cause it to evolve in positive systems in which different is related to different […].[14]

This intensive temporal evolution, I argue, would be rightfully real both to difference and repetition as ideas, allowing them to evolve temporally under identical conditions: difference projecting itself in an unarticulated space *inter-images*, repetition *through the images*. It follows that the differential soul of the difference, by its capacity of divergence and decentering, circumvents the concept, slightly touching its edges and creating potential links, while repetition, by its powers of displacement and disguise, goes across the concept, dislodging it, and giving it its significance and identity.

There is thus difference in itself but also 'another difference', which, following the present argument, stands as a *rhythmical difference*, the difference that composes the temporal complexity of the idea during its progressive emergence towards the moment of representation. This rhythmical difference, I suggest, is powered in reverse by a negative generalising force, in the sense that it in a way complies with the emergence of the concept. It allows for many memories, strong and soft impressions to be summed into a single image — which, depending on the degree of one's representational compliance, can be more or less temporally open.

Concepts are thus formed (or informed) by differences that are progressively compressed or blocked into a generality that gradually arrests their differential power. Differences are thus emptied, so to say, from their presence and singularity, their concreteness, in order to manifest an *encompassing image* (a formula) of repetition sufficiently ample to be applied to the past or to the future; future and past being, in this sense, actually illusions created out of the process of conceptualisation proper.

One may say, following this argument, that there really is in Bergson's and Deleuze's thought a direct correspondence between the concreteness of the particular and the notion of pure time, and the *degree of conceptuality* of the general and the notion of space.

It is in the context of the ideal reflexion of the purity of time in the self and in the things themselves that any movement from this purity may represent a *degree* of spatialisation *in us*. As we will observe, a degree of spatialisation ends up working — as Bachelard also indicates[15] — as a *rhythmical mark* at the surface of the duration of the idea (in its evolution from pure memories towards the representational moment): *the idea becomes rhythmical for the simple reason that it looks forward to be represented*.

Space is thus a *conceptual sense* which emerges with the represented thing, varying accordingly to it; while time is a *concrete sense*, attached to the reality of things (in the self

[14] Deleuze, *Difference and Repetition*, 360.
[15] Bachelard, *Dialectic of Duration, passim*.

and in things themselves). While space is always turned to the logical, geometric definition, time, otherwise, is always turned indefinitely and infinitely to the sublime.

The temporal domain that grounds the whole argument for the process of rhythmicalization of the idea, as it has been said, is formed by the infiniteness of time now imagined as a pure duration without space; and varying levels of temporal finitude, conceived of, each one of them, as a pure space without time. This is the temporal scenario of the rhythmicality of the idea.

The notion of rhythmicality, however, must not be confused with that of rhythm, neither is it composed by rhythm(s). It is actually a temporal frame, a major temporal property or quality, a condition for the emergence of rhythm(s). *Rhythm,* otherwise*, is the effect of rhythmicality*, meaning that there is no rhythm in pure time or in pure space, but only as a consequence of their intersection. Rhythm is thus caused by the intersection of time and space; or, saying it differently, there is rhythm when the infiniteness of time is cut out and delimited by varying spatial intensities. It also means that time or space in themselves do not evolve, since the condition for their evolution is their intersection.

Conditioned by space (a conceptual sense), time evolves into something that was or something that will be, or rather, into conceptual senses of beforeness or of afterness. The notion of the passing of time depends thus on the notions of past and future, which are however unconceivable without the notion of something that endures, of *a same*, the defined thing that was or will be. It means that there is no past or future in themselves, but only in relation to something that becomes past-ish or future-ish by means of space: they are just abstract general notions of passing time, which is actually referred or conditioned by the identity, the archetype, the myth, the persona, the *characterization* of something that becomes a symbol (a conceptual sense) of time passing. Temporal evolution is a reality to us because, although we sense the actual thing growing and degenerating, or changing its relative position, all the time there is something that is kept unchanged around us. Thus, there would be no time passing, no past, no future and all things were to be perpetually made anew if in the absence of identity. For we may say that the infinitude of time coincides with the infinitude of the now, as the infinitude of the now coincides with the infinitude of the new.

In music, we will find extrapolated from the notion of identity many forms of thematicism. Indeed, the proper sense of temporal evolution in music (called by many authors, musical motion) depends on a sense of sameness delivered by a consistent recapitulation (varied or not) of figures and gestures, and also by the recursiveness and regularity of musical accentuation, the *takt*. The temporal evolution observed at the surface of the musical piece reflects the evolution of time in general in common sense, because both time and musical time are conditioned by the notion of identity that is necessary to the constitution of space.

Rhythmic and metric theories which discuss mostly the rhythmic and metric accent perceived at the surface of the musical piece are, in this sense, spatial-to-temporal-like musical theories. Because the main point of discussing musical accentuation is to address less its structure, than the problem of musical temporality from the point of view of the futurity or pastness of musical contents. One may count how many beats or pulses (simple or complex) a determinate event lasts, or in how many beats it returns from its past or will probably return in its future; we may concur on the regularity or irregularity of its past or future. Musical meter and musical rhythm are, in this specific sense, always temporally evolutive. In other words, we never discuss musical space for the sake of discussing itself, but rather to virtually construe, from a notion of musical space, a temporal evolution of some element or force in a given musical context.

Effected by time, otherwise, space evolves to become the *something's coming* or the *something's going*, or rather, the senses of the 'nearness' or of 'remoteness'; both of which are unconceivable without the notion of relative *change*. We have this feeling of 'space passing' because we are able to conceive of the passage of something in relation to another. Moreover, added to the notion of a thing that passes, we are also able to conceive the passage itself.

Spatial evolution is a reality to us because things in movement produce diverse spatial relations, as they become closer or more distant in many complex ways. To be clear, spatial evolution is hardly possible without at least two referential moments: moments, not points, because the thing's evolution is in itself always an intensive rather than extensive power. Generality arises, it seems, exactly from the installation of extensiveness, from *measuring relations*, when points within the evolution are consciously fixed, defined. We behave in this way, I suggest, in order to construct safety, or better, to construct a degree of safety, because safety is never absolute. Our integrity is in many ways a construction dependent upon measuring relations between things because by doing it we achieve a *degree of certainty*: I am safe because I am sure, to some extent; the power of measuring being thus directly proportional to the power of extracting extensivenesses from intensiveness. However, since the actual thing is perpetually changing, as well as its infinite relations, it is necessary to create a generalization, a *formula of change*, able to replace the work of measuring. This order of things is at the base of Bergson's claim that the conceptual mind is per se anti-temporal.[16] Moving a step backwards, we find an intermediary evolutive domain, in which space is effected by time, in which identity is less important than the changing relations created at each moment between identity and identity.

In music, we see this, for example, in the art of counterpoint. In it, the sense of relative change is given by qualitative means: each melodic displacement is measured in relation to another, being contextually more or less consonant or dissonant. In counterpoint, we also may have thematic elements, though not as something (the same) that progresses

[16] Bergson, *Matter and Memory*, 137.

temporally. Instead, the theme, the subject is 'placed against' *the other* — which, even in case of openly imitating the theme, is always different, just because it does not utter the endurance of the same but the appearance of *something else*, which may but also may not be imitative. The important aspect here is that between something and something else, in the temporal interval produced by their difference, a *domain of change*, a *variation*, is created. Musical space is thus effected by musical time; it evolves becoming the changing aspect of that interval.

Now, between the temporal evolution of the same and the spatial evolution of the change, there is a common force: their *frequency* or *rate* of their manifestation. The rhythmicality of the temporal domain just mentioned reflects thus the double aspect of the frequency or rate of manifestation of the same and of the change. It means that, as principles, both the generic and the particular imply variable frequencies of manifestation, they entail *levels of complexity* that vary depending on their mutual and necessary influence.

II – TEMPORAL COMPLEXITY

Bergson says that the uniqueness of things rests transcendentally in us; in other words, that there is a profound continuity linking everything and us. However, he also points out that, unfortunately, in order to represent the world we are forced by the circumstances to cut down that profound continuity by means of many levels of articulation.

I suggest that the degree of continuity and articulation is oriented by the play of fundamental vital forces; those imbued by the notions of determination and repetition as well of indetermination and difference. On the one hand, the greater the articulation, the greater is the action, the temporal influx of determinism and repetition in us (as vital forces), and so the shallower and more generalising one's subjectivity in relation to the concreteness of things. Consequently, one's responses to stimuli become more agile and mechanistic as they become nearer to the motor centres, that is, the lesser the reach of one's attention in relation to the experience of this concreteness. On the other hand, the more profound, more diversified and less deterministic one's subjectivity is in relation to this same concreteness, the greater one's capacity to make particular the experience of this concreteness and, consequently, of its continuity — one's responses to stimuli becoming more slow and conscious as they are further from the motor centres.

Once someone's attention is contracted, it becomes diffuse, and makes for an extremely controlled and, consequently, strongly articulative representation. This would imply the inaction of matter. Matter's inactivity would be thus an illusion caused or *reflected* by a contraction of attention, by a contraction of one's interest and curiosity. In this specific respect, I suggest, repeating demands forgetting. By the same token, the expansion of one's attention would produce *uncontrolled,* strong, continuative music-like representations, 'pieces of freedom'. It may mean that, independently of their actual movements, the

experience of nature's actions depend on our freedom, on our creativity. Only in this way will these actions be a reality to us. In this specific sense, freedom means rememberness, while rememberness means, in turn, an expansive temporal commitment, a gesture of uncontrol, a rupture with the delimitation of generality; it means to plunge into the uniqueness of each experience.

Deleuze complements the previous notions by proposing that our thoughts are actually moved between certainty and uncertainty, because it is not enough to think of the differentiated thing without thinking of the differentiating process that culminates in the differentiation. As we have seen, for him, our thoughts evolve between a difference that is internally balanced by a driving impetus of coherence and a difference that is external to this balance, which is always moving beyond itself, in non-coherence. Whereas the first, Aristotelian, compliant difference looks for the core attributes of things to discover their potential superior links, for their lost common genus, their *essence*; the Deleuzian difference, taking hints from Spinoza, Nietzsche, Bergson, and others, creates the conditions for the existence of the future, the unknown, and works as a zone of interpenetration that always discloses a newness from everything.[17]

The rhythmicality of the idea is thus modelled after the effect of temporal expansion and temporal contraction that emerges from these two differences — from that difference that cannot be attained simply by the deductive rationales of a dialectic discourse, and from that difference which is crucially dependent on the identity of the concept. There is a problematic difference at the core of the idea, a difference truly accessible only by means of a superior effort of attention; and, all the same, there is a solving difference actually extracted from the thing by means of a disattention that favours the emergence of conceptual identity. As I see them, both the problematic difference and the *solving* difference contribute to the understanding of the process of musical composition. That is why I suggest the process required to access the difference installed in the idea, as well as the process required to refer the difference *denounced* by the identity of concept, are both composed by internal temporal fluxes, intensities, the interchange of these intensities turning them into rhythmic influxes.

This would be the fundamental content of musical time: it is a duration which expands and contracts, *with us* and *in us*, depending on determinate cognitive dispositions. I claim that the expansion and contraction of musical time are or act like the expansion and contraction of the experience of time in general, so that the music we produce mirrors or represents this experience. However, in music, we do not simply mirror the temporality of our daily experiences. That would be too simplistic. Because music is in itself an artistic domain, we, by means of our musical practices, also project on the experience of time in general a determinate, unique temporal construction, a kind of human time that cannot

[17] Deleuze, *Difference and Repetition*, 287ff. Also Deleuze, *Nietzsche and Philosophy* (1986), *Spinoza: Practical Philosophy* (1988), *Bergsonism* (1988).

be found anywhere but only in music as the musical phenomena happen to be to us: music is, in some way, the effect and not the cause of our musicality.

We may add to these notions the understanding that ideas are not concepts, that they are

> […] a form of *eternally positive multiplicity* [my stress], distinguished from the identity of concepts, […] that 'liberate' [difference and repetition, by making them] many objects of affirmation [and contradiction] which rupture the framework of conceptual representation. The powers of repetition include displacement and disguise, just as difference includes divergence and decentering. The one no less than the other belongs to ideas, for no more have an inside than they do an outside. The idea makes one and the same problem of difference and repetition.[18]

In this way understood, ideas are thus a form of eternally positive multiplicity that allows for the emergence of differential and reiterative powers. These powers gradually develop and assume, as we will see, the form of differential or reiterative concepts. In this context, I argue, both difference and repetition are ideally available, so to say, to be used as powers of representation. The actualisation of these powers is up to the act of representation proper — the power of repetition that denotes the temporal contraction of the generic and the power of difference that denotes the temporal expansion of the particular.

However, the fact that difference and repetition are evenly available as ideal emerging powers does not imply that they are representable in the same way. Representation as difference implies the emergence of a differential conceptualisation process, which is critical and frankly opposed to the ordinary perspective of conceptualisation, in which the concept may be seen as the contraction of an infinite number of actual (material) singular cases into a generic case, an image devoid of substance. The differential concept exists otherwise as an expanding particularising force, which is a necessary creative force that negates or *deconstructs* the generic thing: the differential concept is thus not a concept proper, but a negative conceptual power, necessary to the manifestation of the creative act.

Bergson's and Deleuze's philosophies converge on this matter at a point specifically relevant to this thesis: the representation of the idea may be deeper or less, and thence more or less temporal or spatial, since the idea is a form of multiplicity that allows for an even representation of difference and repetition: of the temporal expansion that leads to particularisation, or of the temporal contraction that leads to generalization proper. These movements of temporal expansion and contraction provide, I believe, the foundation of that that is musical in us, forming what I have called the compositional process. Since everything in music is related to this process, the study of music would depend primarily on the study of this foundation. The philosophical idea, that is, the idea itself, and the musical idea are the same; the 'musical,' in musical idea, denotes the temporal sense that qualifies the philosophical idea.

---

[18] Deleuze, *Difference and Repetition*, 360.

Lyricalness and Dramaticism

Adding both philosophies to develop a notion of musicality, I suggest that the eternally positive multiplicity of the idea (Deleuze) is itself composed by purer *lyrical and dramatic* temporal fluxes, as I call them. This, keeping in mind that the lyricalness and the dramaticism of the idea signifies, respectively, the depth of its emerging differentiative or reiterative powers; that lyricalness is a deep temporal power that allows for the emergence of an expanding differential power responsible for the formulation of the differentiative concept (the concept that posits the doubt), and that dramaticism is also a deep temporal power responsible for the emergence of a contractive reiterative power that allows for the formulation of the reiterative concept (the concepts that posits the definition). For, with Deleuze, we may claim that the multiplicity of the idea is actually *a form*, since it is evenly composed by the depth of difference and repetition.

The problem here is that since the differential and reiterative powers that gradually evolve into the represented thing emerge from the depth of the idea, there may be a fundamental *temporal motor* responsible for this emergence. Thus which would be thereby the fundamental powers of lyricalness and dramaticism?

I argue that the motors of lyricalness and dramaticism are, respectively, indeterminism and determinism. Everything in nature seems to be simultaneously ruled by indeterminism and determinism. So that in everything, and all the time, we may find the expression of a potential lyricalness and of a potential dramaticism we are formed and *in*formed by. This is a crucial point. While in Plato's thought, ideas are immutable powers faced by the mutability of matter, here I address the transversality of Bergson's and Deleuze's philosophies saying that change and permanence are actually relative. They are points of view, perspectives or degrees of (temporal) complexity, which exchange meanings depending on the position or intention of the observer: we unconsciously respond to these perspectives, becoming gradually aware of them.

We may claim thus that the purer indeterminate-powered lyrical and determinate-powered dramatic temporal fluxes that potentially form the multiplicity of the idea gradually develop into heterogeneous and compound temporal fluxes, because both indetermination and determination have two sides. While the differential power emerging from indetermination is manifested in a differential concept (a level of intensity of doubt), the target of this concept is obviously its opposite, the determined thing, including its processes of emergence. Likewise, whereas the reiterative power which emerges from determination is attested directly in a reiterative concept (a level or intensity of certainty), the target of this concept is the undetermined thing, including its process of emergence. The concept hence emerges from, no less then it *submerges* into, the idea.

The ideal difference is a force that emerges in a complex indeterminate context, resulting from the temporal expansibility of this context, so that this expansibility becomes inde-

pendent of its source. Ideas liberate difference, says Deleuze, but the price of this liberation is to condemn difference to a sort of intermediate temporal realm, to be excluded from the pure multiplicity of the idea.[19] Difference becomes here the doubt, the problem, the interrogative mark. It has a function: to problematise repetition, but also to problematise itself and its own origin. That is why we may find two, compound differential temporal fluxes, lyric and dramatic. But we may say also that repetition is a force that emerges in a complex determinative context, resulting from the temporal contractibility of this context, so that this contractibility becomes as well independent of its source. Repetition is hence also excluded from the multiplicity of the idea becoming the impulse towards the solution, the noun, the exclamative mark. Its function: to solve difference, but also to reinforce its own origin. That is why we find two compound reiterative temporal fluxes: the lyric and the dramatic.

Thus, it is Deleuzeanly advocated here that by means of a fundamental lyricism or dramaticism, pure temporal fluxes that form the multiplicity of the idea *release* difference and repetition, turning them into several objects, compound temporal fluxes, of affirmation and contradiction that makes it possible for the installation of a conceptual framework for the emergence of representation. So far as the self, more consciously, reaches for these pure and compound fluxes, they tend to be, in the process of representation, confronted or conformed to the perception that attracts them. In this sense, both repetition, in its dispositional and articulative power of *displacement and disguise*,[20] and difference, in its energetic and connective power of *divergence and decentering*,[21] belong equally to the idea as its lyrical and dramatic temporal expansions and contractions.

The eternal multiplicity of the idea referred to by Deleuze is the necessary unknown forerunner that is applied permanently by the self on expressive and interpretative germinal powers, in their temporal evolution. Lyricism and dramaticism, the two-folded principle of this eternal and ideal multiplicity, act by releasing the positive powers of difference and repetition in their constant temporal flow within the self.

Difference and repetition evolve temporally within fundamental lyrical and dramatic fluxes, into compound fluxes more and more capable of inserting themselves into the motor-diagrams given to the self by perception. Compound fluxes are a Bergsonian *moving house* that expands and contracts temporally, in which the powers of difference and repetition are retrospectively influential for the work of lyricalness and dramaticism. This ideal dissemblance operates in increasing levels of complexity, exerting an increasing, concrete influence on consciousness, as it responds to the relative openness or closeness of motor diagrams, of sensory-motor apparatuses.

---

[19] Deleuze, *Difference and Repetition*, 300.
[20] Deleuze, *idem*, xix.
[21] Deleuze, *idem*, xx.

Difference and repetition as ideas are juxtaposed rather than opposed. They actually compose, in simultaneity, an ideal multiplicity of moving surfaces. Moreover, "it is at the same time and from the same point of view that [ideal] difference ceases to be reduced to a simply conceptual difference, and [ideal] repetition establishes its most profound link with [ideal] difference and finds a positive principle both for itself and for this link."[22]

Thus, ideas may really represent the *plenitude of possibles*. Perhaps a proper musical interpretation of such plenitude is to conceive of it formed equally by infinite temporal paths of difference and repetition. In this way, I think, guided by an excess and an exaggeration, in their plenitude, both difference and repetition may temporally evolve up to their final representational forms.

This evolution has, however, another side. It seems to depend as well — and simultaneously — on another complementary, interdependent temporal juxtaposition, that which happens between difference and repetition along their *way back* from their representational forms, or misrepresentations, again towards difference in itself. It seems that in their transcendental way back to their plenitude, our ideas exercise our creativity, our freedom. In it, we are inevitably confronted by the differentiation and repetition of our subjectivity, by our transgressivity or conformation.

Representation actually completes its journey when powers of our own differentiation and repetition link, as it were, the transcendental complexity of our ideas with the complexity of our experiences, attitudes and desires. So much that our ideas reflect our individual disposition towards life in what life has of permanence and mutability.

Repetition and difference

Deleuze claims that real repetition is not conceptual but ideal. It differs from the repetition that stands blocked, so to say, as concept, because concepts cannot evolve — their constitution is grounded on immobility. For Deleuze, the work of ideal repetition always implies a temporal evolution, because "to [actually] repeat is to behave in a certain manner, [not in relation to something general] but in relation to something unique or singular which has no equal or equivalent."[23] Ideal repetition thus opposes the immobility of the generality of the particular with the mobility of the universality of the singular, meaning that it represents the *behaviour* of the singular. It means that it is always possible to imagine real repetition as singularity, as the unrepeatable unity in itself, as the singular feature that forms, next to infinite other singular features, the multiplicity of difference in itself.

Generality opposes ideal repetition for, while the former *organises*, the latter *flows*; while the former connects ordinary particulars, the latter dissociates distinctive universalities. Yet, while the former *opens spaces* to variation (and here we may find perhaps the grounds

[22] Deleuze, *Difference and Repetition*, 360.
[23] Deleuze, *idem*, 2.

for musical coherence), the latter *closes times* to instantaneousness (because only the instant can evolve). This means that ideal repetition conveys difference in itself *to time*, to the 'time of being.'

The unavoidable immobility given to the generality of the concept is thus opposed by the unavoidable mobility of the idea, or rather, by the mobility of repetition *as* idea. As it is necessarily different from the generality of the concept and its immobility, ideal repetition acts in a moving way in relation to a particular something, acquiring (arresting) a specific feature of difference in itself and, thence, promoting the temporality of this difference.

As for Deleuze, there is no ideal repetition without the anteriority and primitivity of difference in itself.[24] Difference in itself is *original*. Thus, obviously, the reality of a differential fullness is shown to be transcendental and prior to sensibility; it cannot exist (to us). In order to exist, to pertain to the domain of sensibility, difference in itself, or rather, a specific trace of difference in itself must be arrested, being thus dependent on the mobility installed in the idea by the work of repetition. For this reason, difference in itself *becomes* ideal difference by means of ideal repetition, while, at the same time, there is no ideal repetition without the possibility of ideal difference. This assumption explains why the rhythmicality of difference and repetition cannot be actually dissociated, forming a complex temporal unit.

Otherwise, material repetition (the experience of repetition) is in many ways an illusion caused by the conscious or unconscious effort of imposing a conceptual control on nature's multiplicity. This control expresses many designed *architectural symmetries*: the human world of repetition is built on a natural world of non-repetition. True material repetition seems to be rare: no colour, shape or texture is actually repeated around us, because in nature there are no stationary objects, nor observers. The experience of repetition seems to be thus a side effect caused by a conscious or unconscious mind in its constant effort of blocking, of arresting nature from its differential depth.

Difference in itself is thus regulated, restrained, so to say, by means of a necessary process of identification that leads to the represented thing. This process, however, is not ignited in us by the thing itself and only. If it were so, there would be a total and natural identification between the things as they are and their concepts: the things would be totally identified because they would instruct and conduct us through the process of their own identification. Alternatively, we may suggest that while the things present themselves to us integrally as they are (they are concrete, real), we are provided, otherwise, with a power of identification, our intellect. Identification is thus an operation caused from within; it is a projection of the self on things — the projection of identity. It is more an *echo* of the something similar, a memory-quality, than a true perception of repetition.

[24] Deleuze, *Difference and Repetition*, 131.

Concerning the identification process, it seems that the more repetition occurs, the more intensive, ideal it is. Deleuze also demonstrates that

> identical elements repeat only on condition that there is an independence of cases or a discontinuity of times such that one appears only when the other has disappeared: within representation, repetition is indeed forced to undo itself even as it occurs. Or rather, it does not occur at all. Repetition [as such, as idea] cannot occur under these conditions. That is why, in order to represent repetition, contemplative souls must be installed here and there; passive selves, sub representative syntheses and habituses capable of contracting the cases or the elements into one another [into concepts], in order that they can subsequently be reconstituted within a space or time of conservation that belongs to representation itself. [...] since this contraction is a difference or modification of the contemplative soul [— that is, since modifying ideal repetition is itself a differential process —], it appears that the most material repetition occurs only by means of and within a difference which is drawn off by contraction, by means of and within a soul which draws a difference from repetition.[25]

This means that as much as there is no ideal difference but by the temporal mobility of ideal repetition, there is no conceptual repetition without the *immobilisation* of ideal repetition. Ideal repetition *captures* difference — forming an ideal object, or *soul* constituted by a repetition which is filled by difference —, but then, as the process of representation advances, this difference is *drawn off* from true ideal repetition, leaving to repetition no other choice but to behave as a ghost, emptied from its particularity: concepts are exactly this.

Difference in itself, ideal difference, ideal repetition and repetition as concept, form a temporal system of gradual immobilisation. Thus temporally contracted as concept, as generality, repetition *eludes* its internal difference, the difference which was once idealised, arrested from difference in itself. This temporal contraction expresses the merging of the same into a unique concept, and is related to the most external aspect of repetition. It is superficial and dependent upon a *contracting* difference, which contracts, immensely, the whole past, because

> everything changes. If a difference is necessarily (in depth) part of a superficial repetition from which it is drawn, the question is: of what does this difference consist? This difference is a contraction, but in what does this contraction consist? Is it not itself the most contracted degree or the most concentrated level of past which coexists with itself at all levels of relaxation and in all degrees? This was Bergson's splendid hypothesis: the entire past at every moment but *at diverse degrees and levels* [my stress], of which the present is only the most contracted, the most concentrated.[26]

This temporal contraction that leads to the represented thing is thus achieved by the (gradual) contraction of the whole past, and obviously, I argue, of the whole future, in *infinite relaxing levels*, or degrees of temporal complexity, as I call them. Even when im-

[25] Deleuze, *Difference and Repetition*, 357.
[26] Deleuze, *Difference and Repetition*, 358.

mobile, representation may offer diverse images (interpretations, understandings), because in its gradual emergence it is subjected to different levels of temporal contraction.

Following this train of thought, we may be able to represent the idea of repetition as well as the idea of difference: while there is a temporal path oriented to the immobility of the concept, to generality, there must be another path oriented to the mobility of the idea, to particularity. If past and future may be drawn at the *surface* of repetition, as contractions, there must be always the *hope* for *another* past and *another* future, that is, their creative, expanding alternatives.

Repetition stands, on the one hand, as the *bare* material repetition of successive elements or external parts, and, on the other hand, as the ideal repetition of totalities coexisting in different degrees of temporal contraction. We thus find, grounding our cognition as well as our music, a kind of successive (extensive and quantitative) and a kind of coexisting (intensive and qualitative) repetition.

Difference, in turn, is either conceptually drawn off by an external, shallow repetition or ideally captured, displaced and disguised, as it were, by a profound repetition.[27] Now we may find likewise a kind of successive and a kind of coexisting difference, which however cannot be conceived without the work of repetition: the successive difference we observe between the elements of a shallow repetition (because drawn off from it), and the coexisting difference we intuit between one another ideal repetition, as the interval of their reach.

The elementary, horizontal repetition is the most relaxed level of a totalising, vertical repetition, which intensively evolves in different levels or degrees of complexity. This vertical repetition has its most contracted version when difference is totally drawn off from it. Deleuze explains that

> Difference is therefore between two repetitions: between the superficial repetition of the identical and instantaneous external elements that it contracts, and the profound repetition of the internal totalities of an always-variable past, of which it is the most contracted level. This is how differences have two faces, or the synthesis of time has two aspects: one, *Habitus*, turned towards the first repetition which it renders possible; the other, *Mnemosyne*, offered up to the second repetition from which it results.[28]

Difference as *Habitus* is the most relaxed level of a totalising repetition; related to the external aspects of repetition. Difference as *Mnemosyne* is the tensional level of a totalising repetition, related to the internal aspects of repetition. Two differences and two repetitions: a contracting difference that renders the repetition of the same, which is negative and contemplates difference from outside, as an extracted power; and an *expanding* difference allowed by the repetition of totalities which coexist at different levels or degrees of

[27] Deleuze, *idem*, 358.
[28] Deleuze, *idem*, *ibidem*.

(temporal) complexity, which is positive and contemplates difference from inside, as its subject and force proper.

Deleuze points out that memory is, nevertheless, the first form in which the opposing characteristics of the two repetitions appear. He says that

> one of these repetitions is of the same, having no difference but that which is subtracted or drawn off; the other is of the different, and includes difference. One has fixed terms and places; the other essentially includes displacements and disguise. One is negative and by default; the other is positive and by excess. One is of elements, extrinsic parts, cases and times; the other is of variable internal totalities, degrees and levels. One involves succession in fact; the other coexistence in principle. One is static; the other dynamic. One is extensive; the other intensive. One is ordinary; the other distinctive and involving singularities. One is horizontal; the other vertical. One is developed and must be explicated; the other is enveloped and must be interpreted. One is a repetition of equality and symmetry in the effect; the other is a repetition of inequality as though it were a repetition of asymmetry in the cause. One is repetition of mechanism and precision; the other repetition of selection and freedom. One is bare repetition that can be masked only afterwards and in addition; the other is a clothed repetition of which the masks, the displacements and disguises are the first, last and only elements.[29]

However, Deleuze claims, it is not enough to exercise this sort of opposition. We should pay attention that there is a creative order sustaining one another repetition. In this, ideal repetition stands as the reason for conceptual repetition. Indeed,

> it is not enough to oppose two repetitions, one bare and material in accordance with the identity and default of the concept, the other clothed, psychical and metaphysical in accordance with the difference and excess of the always positive idea. This second repetition should be the reason of the first. The clothed and living, vertical repetition which includes difference should be regarded as the cause, of which the bare, material and horizontal repetition (from which a difference is merely drawn off) is only and effect.[30] Clothed (repetition) lies underneath the bare (repetition), and produces or excretes it as though it were the effect of its own secretion. The secret repetition surrounds itself with a mechanical and bare repetition as though this were the final barrier which indicates here and there the outer limits of the differences that it communicates within a mobile system. […] The words and actions of men give rise to bare, material repetitions, but as effects of more profound repetitions of a different kind (effects in a causal, optical and vestiary sense). Repetition is pathos and the philosophy of repetition is pathology. However, there are so many pathologies, so many repetitions entwined in one another.[31]

When discussing these interactions, Deleuze essentially tries to demonstrate the distinction that exists between the common perception of difference and repetition, and the reality of difference and repetition as ideas. Now adding to the point that memory is the first form in which the opposing characteristics of the two repetitions appear, Bergson

---

[29] Deleuze, *Difference and Repetition*, 359.

[30] Deleuze, *idem*, 359, 361.

[31] Deleuze, *idem*, 362.

similarly suggests that we are theoretically confronted by two independent memories, in which

> … the first records, in the form of [compound] images, all the events of our daily life as they occur in time; it neglects no detail; […] it stores up the past by the mere necessity of its own nature. By this memory is made possible the intelligent, or rather intellectual, recognition of perception already experienced; in it we take refuge every time that, in the search for a particular image, we remount the slope of our past. But every perception is prolonged into a nascent action; and while the images are taking their place and order in this memory, the movements which continue them modify the organism and create in the body new dispositions toward action. Thus is gradually formed an experience of an entirely different order, which accumulates within the body a series of mechanisms would up and ready, with relations to external stimuli ever numerous and more varied and answers ready prepared to an ever growing number of possible solicitations. We become conscious of these mechanisms as they come into play; this consciousness of a whole past of efforts stored up in the present is indeed also a memory, but a memory in the present and looking only to the future. […] In truth it no longer represents our past to us, it acts it; and if it deserves the name of memory, it is not because it conserves bygone images, but because it prolongs their useful effect into the present moment. Of these two memories, of which the one imagines and the other repeats, the second may supply the place of the first and even sometimes be mistaken for it.[32]

Bergson indicates that the deep memory *imagines* differences and the shallower memory *enacts* repetitions. For him, the shallow-embodied memory that repeats is never separated from the memory that imagines; it is geared towards actions, by repeating accumulated experiences, dates and places, the ever-different moments of life. Readdressing Bergson's argument in Deleuzian terms, it could be suggested that the contraction of repetition would actually "have two aspects: one by which it bears upon a physical element of repetition that it modifies, the other by which it concerns a psychic totality that is repeatable in different degrees:"[33]

> We repeat twice simultaneously, but not the same repetition: once mechanically and materially in breadth, and once symbolically and by mean of simulacra; first we repeat the parts, then we repeat the whole on which the parts depend. These two repetitions do not take place in the same dimension, they coexist: one is a [melodic-like] repetition of instants, the other [a harmonic-like repetition] of the past, one is a repetition of elements, the other is totalising; and the most profound and productive is obviously not the most visible or the one which produces the most effect.[34]

---

[32] Bergson, *Matter and Memory*, 82.

[33] Deleuze, *Difference and Repetition*, 363.

[34] Deleuze, *idem*, 362.

III – RHYTHMICALIZATION HYPOTHESES

The whole rhythmicalization argument hereafter presented gradually develops on the previous basis, by means of five main hypotheses. Very initially, I argue that our musicality emerges temporally as a complex and heterogeneous duration (in a Bergsonian sense) of multiplicities (in a Deleuzian sense), which is actuated, so to say, at the dialectical merging point (actually the moment of coming together) of the powers of sensibility and understanding, thus answering to their mutual influence.

For emergence is a process whereby entities, patterns, and regularities of a higher order arise out of interactions among smaller or simpler entities which themselves do not exhibit the emergent properties. A property of a system is said to be emergent thus if it is a *new outcome* of some other properties of the system and their interaction, while it is itself unexpected and different from them. This notion is present, in different ways, both in Bergson's and Deleuze's philosophies. In Bergson, when he declares that the uniqueness of every experience carries paradoxically the whole past: though singular an experience, it is in fact never so, because it is always subjectively redone as a sign for uncountable and complex emerging remembrances that, being neither pure matter nor pure memory, gradually assume the form of the represented thing.[35] In Deleuze, when he says that the identity of the concept cannot contend with nor fulfil the multiplicity of the idea:[36] there are always infinite emerging senses, intensities orbiting any given concept, so much that no concept whatsoever may be said to perfectly consummate, all constantly deserving a philosophical, political, artistic, etc., re-examination.

So, I argue that our musicality[37] is *produced*, excited, so to say, during the experience, as far as we (following Kant) take by experience the act ignited by the clash of the powers of sensibility and understanding.[38] Our musicality, in a broad perspective, is inevitable just because it cannot be excluded nor isolated from the totality of our living experiences.

---

[35] Bergson, *Matter and Memory*, 27, 116.

[36] As when he says: "Every concept has components and is defined by them. It therefore has a combination [*chiffre*]. It is a multiplicity, although not every multiplicity is conceptual. There is no concept with only one component." Gilles Deleuze and Félix Guattari, *What is Philosophy* (New York: Columbia University Press, 1994), 15.

[37] As indicated in the introduction, musicality is understood here as a musical sense, that envolves the totality of the self, his whole musical faculties and habilities, including his musical imagination, etc.

[38] As Patricia Kitcher argues, "Kant begins his inquiries with an assumption that there are (at least) two quite different mental faculties involved in achieving knowledge, sensibility and understanding, or, in contemporary terminology, perception and conception (A 191B 33). Although the distinction between these faculties is as pervasive now as it was in Kant's day, it is nonetheless problematic. To my knowledge, no one has ever been able to say exactly what the difference between the two faculties comes to. The general idea is that perception involves the sense organs and conception involves concepts, but it is an open question whether our concepts constrain or influence perception, and it may well be that some concepts essentially involve perceptual images." Patricia Kitcher, "Introduction," in Immanuel Kant, *Critique of Pure Reason*, unified edition (Cambridge: Hackett Publishing Company, Inc., 1996), xxxii.

Only under this condition, the art of music can be representative and meaningful: because the superficial musical experience, often conditioned by the final form of the piece of music, is deeply anchored in the musicality of the experience itself.

Saying that our musicality emerges temporally as a complex, heterogeneous duration of multiplicities implies a long philosophical tradition that goes back to Aristotle,[39] a tradition that, in discussing the notion of complexity, reaches the Deleuzian readings of Bergsonism. We find traces of this everywhere in Deleuze's teachings. For example, in explaining Spinoza, he writes that "when a body 'encounters' another body, or an idea another idea, it happens that the two sometimes combine to form a more powerful whole, and sometimes one decomposes the other, destroying the cohesion of its parts."[40] Or also, when discussing Nietzsche's thought, he declares that

> every relationship of forces [being unequal] constitutes a body — whether it is chemical, biological, social or political — [...] This is why the body is always the fruit of chance, in the Nietzschean sense, and appears as the most 'astonishing' thing, much more astonishing, in fact, than consciousness and spirit. But chance, the relation of force with force, is also the essence of force. The birth of a living body is not therefore surprising since every body is living, being the 'arbitrary' product of the forces of which it is composed. Being composed of a plurality of irreducible forces the body is a multiple phenomenon, its unity is that of a multiple phenomenon, a 'unity of domination'.[41]

The heterogeneous duration, mentioned above, means the Deleuzian *body* of our musicality. I think that this body is formed by unequal forces that interact, exchanging their multiplicity to constitute a unity, that of a multiple phenomena. As pointed out, I have distinguished, among all possible, two main forces: sensibility and understanding — which alone or isolated cannot yet constitute a body. Sensibility as a force eternally directed to the incommensurable, to the wholeness and nothingness; and understanding as a force oriented to the commensurable, to partialness. The body of our musicality is thus formed — it emerges I suggest — because our sensibility and understanding clash, because both strive for dominance.

As T. Fraser says, the "dichotomy between time felt and time understood is a hallmark of scientific industrial civilisation, a sort of collective schizophrenia."[42] I seek to overcome this dichotomy by putting it forward as the very cause of our musical experiences. Because time felt is indivisible and time understood is pure division, it may be the case of supposing that the notion of music in us and for us originates from the perpetual conflict of two

---

[39] See Jeffrey Goldstein, "Emergence as a Construct: history and issues," *Emergence Complexity and Organization* 1, no. 1 (1999): 49-72.

[40] Deleuze, *Spinoza...*, 19.

[41] Gilles Deleuze, *Nietzsche and Philosophy* (London: Continuum, 1986), 40.

[42] T. Fraser, "The Principle of Temporal Levels: a framework for the dialogue?," Communication at the conference *Scientific Concepts of Time in Humanistic and Social Perspectives* (Bellagio, July 1981) *apud* Ilya Prigogine, Isabelle Stengers, and Alvin Toffler, *Order Out of Chaos: man's new dialogue with nature* (New York: Bantam Books, 1984), 214.

impossibilities: the impossibility of feeling, of sensing, and the impossibility of knowing, of understanding life as it is. Because the continuity of life is insurmountable, we are forced to sever it either intellectually or psychologically; but since the whole set of emerging articulated senses and feelings that are created according to the actual necessity, always impose a number of barriers to the experience of such continuity, we also need to re-join them, to look through them and beyond them. As Bachelard says,

> in vain do we try to differentiate between understanding a process and living it, for in what we call living a time we must always distinguish between what we know and do not know, since our use of this phrase implies that we have immediate and silent knowledge of duration. We do not though live ignorance any more than we see darkness.[43]

For I suppose, even though absolute in its continuity, the complex duration that grounds our musical ideas *flows* in quite opposite but complementary, dialectical directions: according to the power of our understanding and allowing for the sensible; and according to the power of our sensibility by taking into account the intellectual. The complexity of this duration reveals itself to be full of ruptures, links, revolutions and sub-routines, *minor-times*, *sub-times*. This complex temporal panorama, the time of our nascent musical ideas, which emerges and blends with the time of life, stands, I think, as the emergent order of dichotomies and foldings, contrasts and symbiosis, developments and variations, which are perceived at the surface of a piece of music that, by actually reflecting this complexity, is in itself inseparable from it.

Now, I argue that the musical compositional process proper is also emergent, and installed in a *first rhythmicalization*. Once installed, this first rhythmicalization imprints the heterogeneous duration of our musicality with a complex rhythmic orientation, with a given creative guidance, marked by many inventions or refutations of past- and a future-bound compositional archetypes.

In itself, our musicality is complex,[44] heterogeneous and multiple. It is formed, as it were, by a profuse mixture of temporal fluxes, of different speeds and volumes. Moreover, our musicality is, more than an abstract concept, a sort of eternally diffuse musical power we all share. I assume that the actualisation of this power, either expressively or interpretatively, is not a direct, pure answer to its complexity as a whole, but it always depends upon a compositional process that delimits a domain inside the whole of our musicality — a compositional process that must be created within this complexity, along with virtually infinite other temporal delimitations and orientations that inhabit in it.

It is this attempt to determine the content and meaning of the notion of musical inspiration I employ here: music is inspired as it traverses a given compositional process, which involves different levels of temporal complexity. Here I consider one and same thing musical inspiration and musical composition. Musical inspiration follows the emergence of

[43] Bachelard, *The Dialectics of Duration*, 53.
[44] On complexity theory I refer to Ilya Prigogine, et al., *Order Out of Chaos*.

a fundamental rhythmicality, which may be initially defined as a rhythmically-oriented field of musicality, as a broad and deep compositional force. This force is qualified in its very beginning, in its emergence, by a prevalent vital action either of sensibility or understanding, to become therefore a force of musical lyricism or dramaticism, respectively.

To be musically lyrical means to compose (to orient) the musicality under the guidance of indeterminacies,[45] as sensibility is indeterminate. About this, what is transcendental in Deleuze's transcendental empiricism lies in a *production* of sensibility. It cannot be defined in terms of

> simple receptivity thereby assuming sensations already formed, [related] to the a priori forms of their representation which are determined as space and time. […] Receptivity must be defined [otherwise] in terms of the formation of local selves or egos, in terms of the passive syntheses of contemplation or contraction, thereby accounting simultaneously for the possibility of experiencing sensations, the power of reproducing them.[46]

According to Deleuze's argument, the guidance of sensibility excludes a priori musical forms or processes, because sensibility itself produces its own many and distinct senses, including those that account for the experience of musical sensations.

On the other hand, to be musically dramatic means to compose determinacies. Following Bachelard's arguments, I assume understanding as the power of determining things dialectically, based on previous dialectical processes. Determinism is often contrasted with free will. In contrast, I do not consider causal, nomological or necessitarian forms of determinism, nor pre-determinism or fatalism and the like. Following Bergson's thought, all these notions must be refused because they are the result of an illegitimate translation of the unextended into the extended. In Bergson's words,

> definite facts are appealed against freedom, some physical others psychological. Sometimes it is asserted that our actions are necessitated by our feelings, our ideas and the whole preceding series of our conscious states; sometimes freedom is denounced as being incompatible with the fundamental properties of matter, and in particular with the principle of conservation of energy. Hence two kinds of determinism, two apparently different empirical proofs of universal necessity. We shall show that the second of these two forms is reducible to the first, and that all determinism involves a psychological hypothesis: we shall then prove that psychological determinism itself, and the refutations with are given of it, rest on an inaccurate conception of the multiplicity of conscious states, or rather of duration.[47]

---

[45] Deleuze remarks, exploring the notion of difference in itself, that "indifference has two aspects: the undifferentiated abyss, the black nothingness, the indeterminate animal in which everything is dissolved — but also the white nothingness, the once more calm surface upon which float unconnected determinations like scattered members: a head without a neck, an arm without a shoulder, eyes without brows. The indeterminate is completely indifferent, but such floating determinations are no less indifferent to each other. Is difference intermediate between these two extremes? Or is it not rather the only extreme, the only moment of presence and precision? Difference is the state in which one can speak of determination as such. The difference 'between' two things is only empirical, and the corresponding determinations are only extrinsic. However, instead of something distinguished from something else, imagine something which distinguishes itself — and yet that from which it distinguishes itself does not distinguish itself from it." Deleuze, *Difference and Repetition*, 28.

[46] Deleuze, *idem*, 98.

[47] Bergson, *Time and Free Will*, 142.

Approaching the Bergsonian conception of duration from Bachelard's perspective, I argue that the power of understanding produces its own many and distinct determinative senses, including those that account for thinking about music. This is not a challenge to free will, since many products of understanding respond accordingly to many distinct levels of complexity. It is impossible to reproduce a given conscious and even less an unconscious one; they are unrepeatable. It remains to our philosophical, artistic enquiries only to ask about their differentiation and about the differential principle that grounds their uniqueness.

Beyond that, at a level of superior specialisation, this profound compositional force is requalified. Firstly, according to the particularising influence of sensibility on understanding, an influence that is *temporally expansive*, and aligned to difference in itself (to say it with Deleuze), such as to represent a power of eternal innovation, the *concreteness* of the new. Secondly, according to the generalising influence of understanding on sensibility, an influence that is temporally contractive, and aligned to the principle of conceptual identification.

A given compositional process evolves in complex ways (more or less determined, more or less indeterminate) during the installation of rhythmicalized times, of *musical times*. Times that are creatively rhythmicalized, emerging from the *inside* of the heterogeneity of the duration of our musicality and, beyond, from the heterogeneity of life. Times that evolve from plain, still diffuse *temporal potentials* (contingent, archetypical and primitive temporal forms of perceiving and understanding the reality) to the point of firmly becoming rhythmic ideas.

There are some hints in Lúcio Alberto Pinheiro dos Santos and Henri Lefebvre's *Rhythmanalysis*,[48] as it is presented by Bachelard,[49] but the meaning of the term rhythmicalization in use here is new. It means the process of producing foundational, intermediate and superficial rhythmic ideas. It is usual to suppose the existence of three analytical levels in music, fore-, middle- and background musical realities.[50] I approach this schema, but from a quite different point of view. I also identify three levels of compositional complexity, but the difference is that, here, musical background is traceable but not yet directly observable; it does not result in original sound-forms or formal schemas, as the Schenkerian *Ursatz* suggests — the underlying structure, in its simplest form, from which the musical work as a whole would originate. I argue in contrast that the musical background must be seen, first of all, as a creative field, formed by fine temporal orientations. Musical background is thus fully ideal and maturates rhythmically into simple compositional notions: the notions of *characterization* and *non-characterization*, and the notions of *routinization* and *non-routinization*.

[48] Henri Lefebvre, *Space, Time and Everyday Life* (New York: Continuum, 2004).
[49] Bachelard, *The Dialectics of Duration*, 22.
[50] See Carl Schachter, *Unfoldings Essays in Schenkerian Theory and Analysis* (Oxford: Oxford University Press, 1999).

The notion of characterization stands, simply, as a temporal orientation that fixes and orders the heterogeneity of our musicality around certain temporal impulses that privilege identity, recognition and repetition, 'the step backwards,' the past, and also hierarchy, articulation and stratification. The notion of routinization, otherwise, privileges routines, clear rules of conduct, cohesion and coherence.

We do not need to use sound forms to *compose through* these notions since they take infinite shapes, and may be seen as compositional archetypes. For, I think, a given compositional process is always individually ignited by certain temporal orientations, as it is first of all archetypically defined to meet determinate expressive and interpretative necessities. Depending on the case, the power of the characterization or of the routinization, or their negation, will dominate.

Moreover, there is a second, intermediary compositional stage or level, manifested as a second rhythmicalization, which is responsible for the specialisation of the fundamental rhythmic orientation of the compositional process — in the sense of the formalisation or *de*-formalisation of its general extensive qualities, of its 'spatiality,' according to some dialectic rhythmical operations deduced from the direct experience of the mobility of matter.

This second instance of rhythmicalization, which is internal to the first, reorients the compositional process as a whole. It represents a sort of musical middle-ground that is not topped hierarchically but embedded into a given musical background. It emerges and is thus also placed, as it were, inside the body of a musicality, composing with a plurality of irreducible forces the multiple phenomena that forms the unity of the process of musical composition.

It is thus for two reasons. To begin with, because, in order to remain creative, a given musical background must be considered from the compositional point of view, and taking into account the viability of indeterminacy as much as of determinacy. To understand musical background as a creative field implies considering its dialectical nature, its temporal mobility and, consequently, the impossibility of deriving from it any fixed, all-pervasive compositional rule. We may admit influences, 'transparencies,' expressive and interpretative callers, but not rules. Consequently, I think, the response of middle-ground music to any kind of stratification principle is sometimes contingent but never necessary.

The second reason is that musical middle-ground, as here suggested, emerges by obeying a qualitative change handled by different creative powers and faculties than those vital forces that ground it. Musical middle-ground resonates, so to say, the calling of different memory and imagination *impulses*. Memory and imagination impulses and their consequent rhythmical production integrate the creative powers of sensibility and understanding, instead of laying architectonically on top of them. Memory and imagination co-exist within the temporal interpenetration of sensibility and understanding, constantly qualifying and re-qualifying this interpenetration.

This notion is based on Bergson's claim that we are provided shallow and deeper memory types. In his words, memory creates

> anew the present perception, or rather it doubles this perception by reflecting upon it either its own image or some other memory-image of the same kind. If the retained or remembered image will not cover all the details of the image that is being perceived, an appeal is made to the deeper and more distant regions of memory, until other details that are already known come to project themselves upon those details that remain unperceived. And the operation may go on indefinitely — memory strengthening and enriching perception, which, in its turn becoming wider, draws into itself a growing number of complementary recollections.[51]

However, considering that all we have of memories are their resonances, their impulses, I find it necessary to match the Bergsonian assumption of memory levels to shallow and deeper types of imagination. It is necessary to follow Bergson on these matters because,

> we are dimly aware of successions in nature much more rapid than those of our internal states. How are we to conceive them, and what is this duration of which the capacity goes beyond all our imagination? It is not ours, assuredly; but neither is it that homogeneous and impersonal duration, the same for everything and for every one, which flows onward, indifferent and void, external to all that endures. […] In reality there is no one rhythm of duration; it is possible to imagine many different rhythms which, slower or faster, measure the degree of tension or relaxation of different kinds of consciousness and thereby fix their respective places in the scale of being.[52]

We remember and imagine the world in different ways, according to different degrees of tension or relaxation of memory and imagination, different levels of consciousness. Memory and imagination impulses form an intermediary creative zone inside a broad creative field. Thus many new rhythmical notions emerge and create the possibility of advancing compositionally, a step further, towards the final musical formalisation of the piece of music. They manifest, so to say, a second rhythmical translation: characterizations and routinizations are transmuted into strong and weak forms of symmetries and asymmetries, some of them superficial and immediate, that many times emerge as agile and involuntary impulses, some others more profound and mediate, emerging as slower and more conscious impulses. I call them musical temporalities.

There is a temporality that resonates a kind of shallow memory, which is delimited by bodily stimuli. Here we find memory as gesture, as inborn or conditioned reflex, that demonstrates a greater commitment to regularity as principle.

There is a temporality that, otherwise, resonates a shallow imagination, a sort of transitory temporal realm placed, as it were, between bodily and mental impressions. Here we find imagination as a vital force that fluctuates between the gesture and the anti-gesture, between the conditioning and the anti-conditioning factor, as it demonstrates a greater commitment to irregularity as principle.

---

[51] Bergson, *Matter and Memory*, 101.
[52] Bergson, *idem*, 207.

There is also a temporality that resonates a sort of deeper memory, which aims at the balance of regular and irregular impulses. I consider this temporality as *the mediator* of the gesture and the anti-gesture, of conditioning and anti-conditioning factors. It is to the compositional process as the principle of tonality is to the presentation of tonal musical works. It is regulatory, and exerts its power of regulation by always looking for the most efficient solution.

Lastly, there is a temporality that resonates otherwise a kind of deeper imagination. I consider it *the arguer*: it demands the annihilation of balance lines between the gesture and the anti-gesture, conditioning and anti-conditioning factors, as it demonstrates a greater commitment to imbalance as principle. It is thus de-regulatory, and exerts its power of de-regulation always looking for the most efficient method of problematisation.

Yet a third compositional stage follows. A stage in the context of a third rhythmicalization — of the musical foreground — which emerges surrounded by many types of memory and imagination and around definite *musical meanings*.

I suggest a functional division between *systemic* and *metric* musical meanings, which are to be conceived compositionally much closer now to sound-forms than before. They are about to erupt, to materialise, to form the 'musical diagram'.

While the whole argument raised from first and second rhythmical levels makes use mostly of philosophical and psychological orientations respectively, now, at this point, I distinguish musical systems and metrics, having in mind a structural approach. But again, any given musical language, so to say, is hierarchically built *on* those philosophical and psychological bases. It is rather a necessary part of them, as it composes with them — to put it using the reading given by Deleuze to Nietzsche's doctrine of expressive power[53] — a unified body of multiplicities.

Now, the piece of music proper gradually arises. It happens irregularly, amid many creative spasms and voluntary architectonical steps. At this level, all main compositional decisions are metrically related and, in this context, new rhythmic ideas may emerge: the musical system is gradually metrified, becoming a piece; becoming its own example, a bit of its own rhythmical properties, its own applied case study. This perspective is related to Stockhausen's compositional theory and practice: at the limit, not only the piece of music but any sound is in itself a marvellous complex metric structure. That is why studying sound properties is always advisable, because in this way we prepare ourselves to the discovery (and consequent artistic appropriation) of new, unknown metric arrangements, to the discovery of new musical pieces.

In the end, a musical piece's surface is always quantity, and as quantity it surely can be measured, analysed. One may thus expect that the work of musical analysis is eternally

[53] Deleuze, *Nietzsche and Philosophy*.

circumscribed by many sorts of quantitative issues, even though the musical analysis could always trespass this very quantitative boundary in order to extract quality from quantity, that is, in order to make quantitative aspects meaningful so that one would devise something like an 'interpretative machine,' that would allow us to travel back towards the foundation of our musicality.

At this point, the compositional process is apt to manifest many architectonic rhythmical notions. I argue that the structured spatiality of a musical piece is thus systematically distributed along distinct layers of musical meaning and distinct zones of projection of musical meaning, which are consequently distributed in metric images of particular fashion — differentiated according to their melodic or harmonic uses, or rather, according to the melodic-like and harmonic-like distribution of musical accentuation.[54]

After all, I argue that the piece of music allows for a process of musical representation that also acts rhythmically reflecting or translating the rhythmicality of the piece's compositional process. This rhythmicality, perceived at the surface and beyond the surface of the musical piece, reflects particular temporal images and affections, individual or collective, marked by impulses of disregard or celebration in relation to the most intimate experience of this rhythmicality, and yet of conformism or transgression in relation to social, cultural or historical rules or values projected on this rhythmicality.

I suggest that musical representation must not be limited to nor delimited by a musical foreground, by the assemblage of elements presented on the surface of the piece. Musical representation is essentially an attitude powered by one's and also by a given society's degree of compositional attachment. This was remarkably called to our attention by John Cage's *4'33"* (1952). Music is, or may be, presented by any assemblage of sounds. But this assumption does not imply that, once presented, a given assemblage of sounds immediately signifies music to us. The proper notion or idea of music seems to depend on how the assemblage is simultaneously perceived *and* understood. In this perspective, Cage's *4'33"* may or may not be music under different circumstances. In order to be so, one may listen to the assemblage of sounds guided, so to say, either by aesthetic or poietic

[54] In his *The Rhythms of Tonal Music*, Joel Lester approaches rhythm as meter, according to an outline of classes of accentuation. The author posits that determinate musical gestures would contribute with the definition of moments of rhythmic convergence in which the musical form and structure would be based on. However, instead of discussing which would be those special moments and their projection throughout a specific composition — as is the case of Grosvenor Cooper and Leonard Meyer's theoretical agenda in *The Rhythmic Structure of Music* or Fred Lerdahl and Ray Jackendoff's structural studies in *A generative theory of tonal music* —, Lester aims for clarifying how these moments of rhythmic convergence are created, that is to say, explaining how they are stressed. This change of focus allows a thorough investigation into the factors that give rise to accent, the relative importance of these factors in creating accentuation, the way accents are perceived, the way meter arises, and the limits of metric organisation on higher levels of structure. For Lester, "an accent is a point of emphasis. In order for a point in musical time to be accented, something must occur to mark that point. It is the beginning of a musical event that marks off accented points in time. Accents are, therefore, points of initiation." Joel Lester, *The Rhythms of Tonal Music*, 16.

manners of feeling and thinking, ideally by both. And these manners may be strongly intimate and irreducible, very particular of one's sensibility and understanding, but also given or *territorialized*, in Deleuze's and Guattari's wording, within diverse strata of significance granted by social means. Strata which "are acts of capture, [which] are like 'black holes' or occlusions striving to seize whatever comes within their reach [as they] operate by coding and territorialisation upon the earth; [and] proceed simultaneously by code and by territoriality."[55]

The territory of music, like any territory, is stratified, coded, demarked in different ways by different individuals and social groups. But it is also always on the verge of being deritorialized, transgressed in order to be reterritorialized in a new fashion. For the territory of music is also drawn from its own negation. It is its permanent reconstitution. Music is always new. In this sense, *4'33"* 's musical representation responds to the very same set of representational paths presented by every other musical piece; its singularity lying in its absolute temporal transparency only, in its absolute lyricalness.

I suggest that musical representation mirrors the rhythmical dynamism and heterogeneity creatively devised along the compositional process. If we assume that this dynamism and heterogeneity is reflected in diverse ways by the surface of a musical piece, then musical representation would access different levels of temporal depth and density by traversing the musical foreground. It would do so, first of all, according to the relative power of penetration of one's attention in regard to the originality of the compositional process, but also to the compliance one demonstrates in regard to a greater or lesser collective attachment of the many to determinate musical territories.

The compositional process is somewhat remade by one's musical representation, which returns to the emergent basis of his own musicality, so that the generality of the notion of time ends up being reflected by the particularity of the notion of musical time. The representational act is understood always in the context of its power of penetration, according to the interpretative reach of a given expressivity. The musicality of musical representation implies a resonance of the rhythmical complexity of the composition by the rhythmical complexity of representation itself. In the end, the interpretative reach of representation is defined by its own rhythmical complexity, its musicality. As the rhythmical complexity of the composition answers functionally the need to instill in it several levels of depth and density, of articulation and continuity in this same way, musical representation also reflects different rhythmical complexities by aligning itself to those levels of depth and density in as many different ways as necessary. In this sense, music is truly permeated by expressive and interpretative contrasts, distributed compositionally according to diverse models of temporal complexity.

On the one hand, the most original rhythmicality testifies a given expressive prerogative

[55] Deleuze and Guattari, *A Thousand Plateaus…*, 4.

which points out, at the limit, the play of non-determinacy and differentiation, lyricism and the perpetual expansion of musical time, forms of musical freedom, presentness and concreteness. On the other hand, the least original rhythmicality testifies a given interpretative prerogative which points out the play of determinacy and repetition, dramaticity and temporal contraction, forms of control, causality and generality. Musical representation is therefore never neutral, because the attitude in face of articulation and formal balance in music is always related to the communicability and sociability of the musical discourse in a given context. Otherwise, the treatment of musical continuity and formal unbalance always brings a revolutionary musical datum, which is cause of the musical historic process and, thus, of the emergence of new musical styles.

Chapter three

Musical Times

and the rhythmic conception of the musical idea

On heads and hearts

The head is the organ of exchange, but the heart is the amorous organ of repetition. […] If repetition concerns the most interior element of the will, this is because everything changes around the will. […] Pius Servien rightly distinguished two languages: the language of science, dominated by the symbol of equality (quantitative generality), in which each term may be replaced by others; and [the] lyrical language, in which every term is irreplaceable and can only be repeated.[1]

G. Deleuze

On chickens and eggs

An attempt to recognise and define the musical idea stands in clear contradiction to the sentimental poeticising notion that a composition might arise from the motive as germ of the whole, as a plant grows from a seed. This is a childish notion, quite apart from the fact that it neither questions nor answers the problem that next arises: where does the seed come from, and what is it?

Which comes first, the chicken or the egg?[2]

A. Schoenberg

---

[1] Deleuze, *Difference and Repetition*, 2.

[2] Schoenberg, *The Musical Idea … *, 99.

On the bases previously presented, I now develop a critical view of some processes of music composition, considering them in the perspective of the general problem of time in music, and their representation. In the current chapter, I distinguish and discuss three main temporal complexities[3] — creative powers or impulses — that any musical compositional project would ideally share: the temporal complexity of *musical times*, that of *musical temporalities* and that of *musical temporalizations*, as I call them.[4]

One must always consider though, that the distinctions I here present do not stand as precise ruptures in a creative musical flux, nor they respect necessarily a determinate cognitive order — following here the creative doctrine of the virtual, discussed extensively by Deleuze in his development of Bergson's temporal findings[5] — as none is more important in compositional terms than another. They are not hierarchical, stratified in any

[3] Temporal complexities considered in the sense presented above, for instance in page 20, as duration and multiplicity forming the idea, to which Bachelard's notion of *instant* is also crucial. However the idea, including the musical idea, may be described by Deleuze and Bergson as multiplicity, and as such as a fluid and engaging, eternally renewed force, forever resignified by the complexities of life, there are always temporal ruptures, absolutely new events: we always resort to articulations of creativity. That considered, the distinction of main temporal complexities that ideally form the process of musical composition is necessary in order to investigate musical creativity further, being in itself a fundamental compositional demand.

[4] Many analytical approaches in music are tripartite, taking into account ground, intermediate and surface complexities. One may consider, for instance, the analytical model proposed by Heinrich Schenker, in which musical substance is hierarchically stratified, accordingly, as pertaining to fore, middle and background layers of musical sense; one may yet ponder upon semiological or grammar grounded approaches, mainly after Chomsky, as proposed for example by J. J. Nattiez, Lerdahl and Jackendoff, and others, as Nicolas Ruwet or Otto Laske. Even though not directly related to nor oriented by these approaches, my own discussion still aligns with them by cogitating the existence of ground, intermediate and surface temporal complexities in music. See J. J. Nattiez, *Fondements d'une Senmiologie de la Musique* (Paris: Union Generale d'Editions, 1975); Lerdahl and Jackendoff, "Toward a Formal Theory of Tonal Music," in *Journal of Music Theory*, vol. 21, no. 1 (1977), 111-172; Nicolas Ruwet, "Theorie et Methodes dans les Etudes Musicales," in *Musique en Jeu*, no. 17, (1975): 11-36; Otto Laske, "Introduction to a Generative Theory of Music," *Sonological Reports*, no. lb, (1975).

[5] According to Deleuze: "The virtual possesses the reality of a task to be performed or a problem to be solved: it is the problem which orientates, conditions and engenders solutions, but these do not resemble the conditions of the problem. [...] The Bergsonian schema which unites *Creative Evolution* and *Matter and Memory* begins with the account of a gigantic memory, a multiplicity formed by the virtual coexistence of all the sections of the 'cone', each section being the repetition of all the others and being distinguished from them only by the order of the relations and the distribution of singular points. Then, the actualisation of this mnemonic virtual appears to take the form of the creation of divergent lines, each of which corresponds to a virtual section and represents a manner of solving a problem, but also the incarnation of the order of relations and distribution of singularities peculiar to the given section in differentiated [*sic*] species and parts. Difference and repetition in the virtual ground the movement of actualisation, of differentiation [*sic*] as creation. They are thereby substituted for the identity and the resemblance of the possible, which inspires only a pseudo-movement, the false movement of realisation understood as abstract limitation." Gilles Deleuze, *Difference and Repetition*, 264.

way. They might be said to be *qualitatively distinct*, but in the sense of the Bergsonian *durée réelle*, of distinct elements forming an indissoluble mixture, of forming a multiplicity, a musical idea.[6] It is important to note that I am aiming here, and in all that follows, to penetrate the proper notion of musical idea as it has been directly suggested by Schoenberg and Stockhausen — who are, I assume, next to Messiaen, the major and most important theorist-composers of the twentieth century. This effort depends fundamentally on the Bergsonian philosophy of time, a philosophy that bravely faces many important problems raised by Kant, and addresses these problems to the creative mind of twentieth century. It also depends however, both on the direct critique of Bergsonism, offered by Bachelard, and, on the consequent and crucial Deleuzian support, defence and expansion of Bergsonism that still illuminates the thought and understanding of the problem of time.

On these grounds, I argue here that the process of music composition is always a temporally complex matter, composed by several interwoven creative moments which integrate, interpenetrate and mutually cooperate in distinct creative tasks, exchanging their powers. Obviously, we may want, try to isolate these moments in order to investigate their particular qualities, but always having in mind that, being temporal, they never restrict themselves to the limits of their own capacities: like the covalent bonds connecting hydrogen and oxygen atoms to form water, or the mutual interference of two wave systems on a surface of a fluid, (Fig. 3.1), these capacities are integrated into a unitary but complex temporal substance.

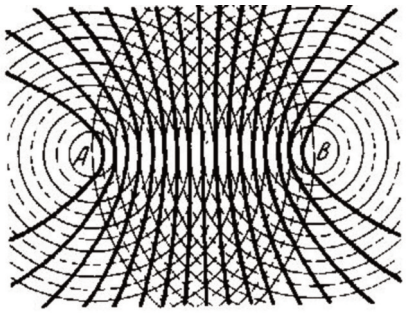


Figure 3.1: Zone of interference between two wave systems; here suggesting the complex process of rhythmicalization of the musical idea, in which distinct compositional, creative moments colaborate exchanging their temporal powers.[7]

[6] The musical idea is a multiplicity, in the sense previously introduced in page 17 and developed onwards. It does not take place *in* a piece of music outside its experience, but *among* the individuals that are related by means of the piece: the musical idea is not in itself a theme nor the developmental or variational aspects of a theme, neither the absence of thematic, developmental or variational compositional features; but the confluence of the compositional factors and conditions that such technical devices project on the musical piece.

[7] Arnold Berliner, *Treatise of Physics In Elementary Presentation* (Berlin: Julius Springer, 1935), http://mpec.sc.mahidol.ac.th/radok/physmath/PHYSICS/Start.htm.

I — MUSICAL TIMES

Musical inspiration

Musical times form a first, fundamental compositional rhythmical complexity. It was suggested above, earlier in chapter one,[8] that this primordial rhythmicality emerges as a continuous heterogeneous creative line, as an answer to the dynamism of profound, fundamental ontological impulses, and to the mutual influence of the powers of sensibility and understanding, as they have been philosophically considered in the twentieth century, mainly after the philosophical work by Bergson and Deleuze on Kant's.

Accordingly, with this in mind, we may now readdress the Schoenbergian notion of musical idea considering that the compositional process we experience (ideally and intensely) as gradually forming a musical piece — which is reflected (extensively) in the piece itself —, does not emerge and operate only as thinking,[9] as Schoenberg would perhaps say, but rather as a *temporal linkage,* (Fig. 3.2), effected by the rhythmical interchange of those powers (sensibility and understanding).

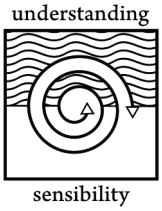


Figure 3.2: The compositional process emerges as a *temporal linkage,* within which grounding temporal qualities are 'rhythmically graduated', so to say, by the creative interchange of perception and reasoning. In it, the powers of sensibility are seen as informing the creative act with many images of duration, while the powers of understanding as doing the same in regard to the cognitive, conceptual articulation of those images (performing measurements, generalisations, defining sets and hierarchies, orders, etc.).

To propose that the compositional process emerges primordially as a temporal linkage implies the notion that the interpretative experience related to this process, its representation, also emerges, later on, reflecting the same linkage, actually complementing it, be-

[8] Reference is made to page 61, in which, in discussing the difference between Kant´s and Deleuze´s notion of idea it is asserted that our capacity of reasoning may be seen not as something given *a priori*, but as something that *emerges creatively* from life as life is, once we see ourselves emerging from it. See also the discussion on sensibility and understanding presented in page 115 onwards.

[9] *Thinking* as the process of thought, of reasoning, of judgment, also in the sense conveyed by Deleuze when discussing representation, which for him "is a site of transcendental illusion. This illusion comes in several forms, four interrelated forms which correspond particularly to thought, sensibility, the Idea and being. In effect, thought is covered over by an 'image' made up of postulates which distort both its operation and its genesis. These postulates culminate in the position of an identical thinking subject, which functions as a principle of identity for concepts in general. A slippage occurs in the transition from the Platonic world to the world of representation (which again is why we can present Plato as the origin or at the crossroads of a decision). The 'sameness' of the Platonic Idea which serves as model and is guaranteed by the Good gives way to the identity of an originary concept grounded in a thinking subject. The thinking subject brings to the concept its subjective concomitants: memory, recognition and self-consciousness. Nevertheless, it is the moral vision of the world which is thereby extended and represented in this subjective identity affirmed as a common sense [*Cogitatio natura universalis*]." Deleuze, *Difference and Repetition*, 334.

cause the musical idea is not and cannot be outside its actual (musical) experience. Moreover, this proposition also implies the simple assumption that any musical piece is ultimately a further rhythmical realisation of a shared temporal background. Yet, granted expressive and interpretative favourable conditions, this shared temporal background *aligns*, so to say, allowing for a favourable aesthetical experience. The compositional process may be seen thus as an integrated whole that *sums* expressive and interpretative forces; not as a closed process in which a given, 'coded' musical message is ideally deciphered by (an ideal) receiver, but as a continuous and open creative process that simultaneously gives and receives its meanings from both sides, (Fig. 3.3).

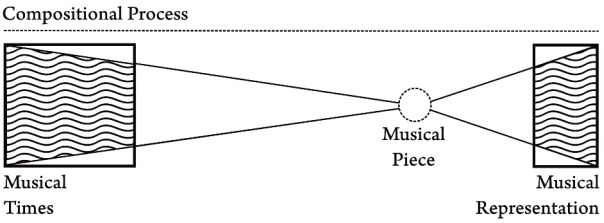


Figure 3.3: Image of creative integration, in which the musical piece is seen amidst many expressive and interpretative influences. In it, musical representation complements the compositional process as a whole, reflecting thus the *temporal quality* that grounds this process; what representation actually represents, in doing or 'living' representation, is not restricted to and by the surface of the musical piece (its sonority) but is *inscribed* integrally into the creative process representation itself participates *by means* of the musical piece.

Returning to Schoenberg, briefly, it is almost inevitable to admit, after his many annotations on the musical idea,[10] that, for him, thinking has a central role in music composition. Now, however distinct, there is no actual contradiction between the Schoenbergian point of view in this respect and the argument presented above, because, as previously commented,[11] Schoenberg also shows a subtle awareness of the importance of compositional forces other than thinking and, beyond that, of the possibility of conceiving of a deeper (pre-compositional) creative domain which concerns the necessary *inspiration* of the musical idea. Schoenberg has never intended to define this domain categorically, and left us a huge problem to solve — that is, that of indicating what would musical inspiration consist of and how would it operate. All in all, and according to the arguments previously exposed, I initially suggest that the Schoenbergian notion of musical inspiration might be contemplated in the perspective to the process of emergence of our ideas in general. In this respect though, even knowing that ideas in general happen to us all the time, usually many times in a single moment, it still remains to be asked where do they come from, on the origin of our ideas. Bergson's splendid answer is that ideas come — emerge — simultaneously from the reality (the *expressivity*, to use a Deleuzian notion) of things in themselves (as they are now) and in us (as they once were for us): for Bergson, *the present moment inspires the whole past and is inspired by it.*

[10] Schoenberg, *The Musical Idea..., passim.*

[11] See, as reference the discussion introduced in page 26, onwards.

Following the suggestion of Bergson, our present musicality would always depend on the whole past musicality of the world. The totality of our past musical experiences and musical knowledge, added to the totality of evanescent environmental and conceptual musical impressions that surround us, moment after moment and from everywhere, plus the vivid and very intense musical experience sometimes demanded by the musical performance proper, and our *impetus*, our individual creativity and freedom, our attention to life, etc; all these matters would be constantly exchanging their expressive and interpretative powers, forming, not a defined musical substance, but a *creative musical process*, a temporal complexity composed of distinct intensities, of distinct temporal qualities, of distinct *musical times*, as I call them; or yet as Schoenberg would say, by distinct musical inspirations.

This is my initial intent in expanding the Schoenbergian notion of musical idea: it does not emerge purely as thinking — deterministic and teleological in essence, as if it were always, *a priori* cognitively oriented by the 'strongest virtual link' between past and future events —, but in a temporally complex way, and always presenting at least *two sides*. The side brought to our attention by Schoenberg, of course, that of thinking, of understanding, which evolves creatively producing musical generalisations, structures, coherence and form; *but also* another side, which is otherwise eternally turned to the concreteness of things, to their crude reality, to their *dis*-formed sonority, the side of sensibility. I thus suggest that both thinking and non-thinking music — or better, thinking music and its opposite — ground the compositional process, occupying by necessity a central role in composition.

Therefore, now following Bergson and Deleuze, I propose that the emergence of our musical ideas, actually of any idea, occurs — is ignited — within an 'intensive differential field', the temporal linkage mentioned above, an ephemeral moment of transition installed, so to say, between outer and inner experiences, or better, in their rhythmical encounter. A moment that involves and *revolves* immediate perceptions and profound memories, and also their products, their impressions and our intelligence. A moment that exists between everything and us (including our identity proper, the totality of our conscious and unconscious states) according to our deepest interests and necessities. Expanded in this way, the Schoenbergian notion of inspiration of the musical idea is not and cannot be delimited by a given musical matter (a tone, a theme, for instance) to which we apply our intellect only, but by a particular rhythmicality, which can be more or less complex, and on which we musically exercise the exchange of our intellectual and sensitive powers.

I additionally argue that musical inspiration is actually a perpetually foundational temporal field that makes it possible for the musical idea to consolidate around a given temporal orientation — to the extent that our sensibility *opens* the possibility of perceiving the musicality of things in themselves and in us (as memory) so that this musicality can

be offered to our understanding; as well as to the extent that our understanding *closes*, blocks the particular (perceived) musical token into a necessary (artistic) generalization so that it can be offered back to our musical perception, ideally though not necessarily, enriching it. Clearly, perceiving music depends on thinking as much as thinking music depends on perceiving. They are perpetually exchanging their powers and are mutually implicated.

This is easily demonstrable, for example, in the contemplation of a plain regular sequence of pulses: on the one hand, in itself, the perception of the regularity of pulsation involves a particular experience of memory, an ever renewed, differential calling of the same, which however still happening now is though constantly (openly) informed and temporally qualified by the past; on the other hand, regularity in itself is a logical construct informed by the intelligence that articulates and measures, and also presumes, to the extent that a close (and *closed*) future is made possible, anticipated in the form of expectation based on the logic of the formula *regularity equals regularity*, (Fig. 3.4).

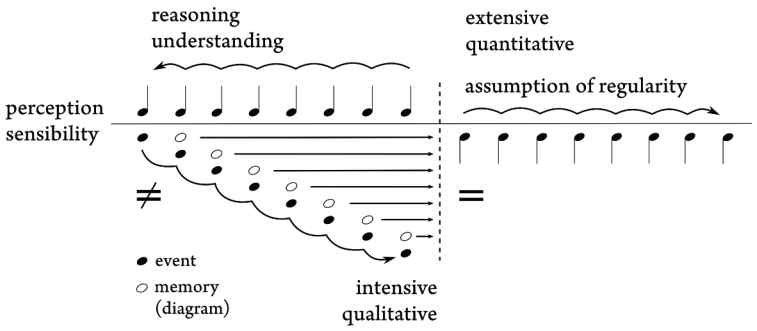


Figure 3.4: Cognitive link and rhythmical cooperation that exists between sensibility and understanding. In this example, on the left side, one may see the representation of a plain sequence of pulses in its continuous process of virtualisation; as memory, they maintain their differential qualities (each one of them can be recalled), thus forming an intensive, virtual *differential field*; now, this field receives (accepts) the influence of understanding which articulates it under a logical regime, a norm of conduct in which repetition and regularity prevail; furthermore, given that this rule is satisfied by the many events allocated in memory, it is possible for understanding to assume the keeping of the rule as the best, reasonable option, and consequently to project or anticipate a (logical) image of pulse regularity (right side of the figure). With this example, we manage to represent many of the assumptions involved in Bergson's lectures on memory and time, that is: each event of life is unique, and repeats only itself, however forming a complex duration; on the other hand, one is always looking for coherence and similarity, because it allows for anticipating particular conducts.

In music, as in everything it seems, there is indeed a double inspiring quality: that of sensibility which is intensive and differentiative, and that of understanding which is extensive and reiterative in nature. In this sense, the sensible side of musical inspiration is irrational, always deconstructive: it defies the sign, the language. Its intellectual side, on the other hand, is mathematising, formalizing, structuring. Any musical idea is, in this context, more or less (rhythmically) structured or non-structured according to the greater or lesser (relative) inspiring action of sensibility and understanding.

Furthermore, there is, I propose, something like a 'rhythmical gradualness' acting between

these vital powers. A gradualness we can picture in itself as the fundamental rhythmicality of the idea — time, or better *musical time*, being perceived and understood by means of the very evidence of this gradualness: some ideas are very determinative and work under the sign of equality; other ones are 'lightly causal' and approximate conclusions; some ideas are completely open to indetermination or are essentially illogic; other ones are simply risky.

The most direct product of such a gradualness is comparable to a vital pulsation which may be identified as the deepest sense of rhythm we may ever experience. One might say of this pulsation that it is underpinned and boosted by a sort of perpetual temporal imbalance or *unrest*: because we are constantly spinning, as it were, around the perceived thing and our understanding of it. One might still suggest, in like manner, that a perfect balance between our sensibility and our understanding is unattainable; and, to say the least, that it would produce no music: such a rhythmical perfection would reflect, in fact, a very special temporal case, a 'quiet time' in which there is actually neither rhythm nor time — because, then, the thing would be fully experienced and understood now as it was and will be forever in all its cases, in all its possible variations.

The discourse about musical balance and imbalance, or the one related to the restoration of balance is central to some important twentieth-century compositional theories. We find it clearly indicated, for example, by many interpreters of Schenker's and Schoenberg's accounts on the *Ursatz* and the *Grundgestalt*, respectively, like Matthew Arndt, who declares that

> Just as in Schenker's mature theory of composition, the realization of the tone on the logical level is not just about the Ursatz but about interruption, so in Schoenberg's, this realization is not just about the *Grundgestalt* (the basic shape), which is regarded as his core construct, but first of all, as it always is for him, about *problems* or *unrest*. Schoenberg relates problems and the Grundgestalt as follows: "The *continuation of the musical idea...* can only happen thus: that the *unrest — problem* — contained in the *Grundgestalt* or in the motive (and formulated by the '*theme*,' or not, if none has been stated) is shown in all its *consequences*. These consequences are presented through the *destinies* of the motive or the *Grundgestalt*. How the Grundgestalt changes under the influence of the forces *struggling* within it, in this *movement* to which the *unrest* leads, how the forces again attain a state of rest, this is the *realization of the idea*, this is its *presentation*[12].[13]

Obviously, for Schoenberg, a state of balance or rest is or must be compositionally attainable because he ideally contemplates musical composition mainly from the perspective of musical thought. Otherwise, would be enough for him to consider that the continuation, or better the *duration* of the musical idea, could be presented (and represented) by

[12] Arnold Schoenberg, *Harmonielehre*, trans. Roy E. Carter as *Theory of Harmony* (Berkeley: University of California Press, 1978), 289; *The Musical Idea and the Logic, Technique, and Art of Its Presentation*, ed. and trans. Patricia Carpenter and Severine Neff (New York: Columbia University Press, 1995), 226-227.

[13] See Matthew Arndt, *The Musical Thought and Spiritual Lives of Heinrich Schenker and Arnold Schoenberg* (New York: Routledge, 2018).

problems, destinies, the struggle of differential forces internal to the *Grundgestalt* only, and without any need or want for a restoration of balance.

If this is not the case for Schoenberg or Schenker, perhaps it may be for us, and at our time after almost one hundred years, that a musical world is possible without a strong articulative and logical imposition of musical thought on musical perception. The first step in this direction is perhaps to consider the actuality of this possibility and its implications, as well as the possibilities that seem to exist rhythmically 'in between' them. Indeed, because it is possible to us now to consider that the blend of our sensibility and understanding forms not a Kantian homogeneous and straightforward line linking perception to cognition, intuitions to knowledge, but actually a heterogeneous complex temporal field, the crucial initial point here will bee to consider, in discussing the most profound temporal design of the musical idea, the *dynamism* implicit by the creative synthesis of sensibility and understanding powers, their intrinsic rhythmicality.

Informed thus by Bergson's and Deleuze's philosophies of time, we may now assume that the process of musical composition is gradually and rhythmically installed, moment by moment and always beyond the actual present time, out of the most direct and concrete experience of things *and* their concomitant field of significance (of their many possible meanings). This rhythmicality is doubtless very complex, composed, as it were, by countless temporal potentials, as many as the substances and forms constituting the reality, and the qualitative states constituting our psyche. One also needs to keep in mind the fundamental notion that even though a strong quest for precise perceptual or conceptual images may be found in every (actual or virtual) experience, these images are in turn and in any case condemned to be eternally imprecise simply because their reality is not informed to us like in a sum in which two different elements coordinate their quantities hierarchically, domesticated by a regime of equality, but like a blend or mixture in which two complexes are mutually implicated: there is no perceptual image without a coordinate conceptual one and vice versa, but composite *complex-images* forming a temporal gradualness that *rhythmically oscillates*, which are sometimes dominated by sensibility and the sensible, sometimes by the understanding and the concept.

Given the immense difficulty of rendering all the complex-images that form this fundamental rhythmicality — and also considering that in order to do so one must always have in mind that the self is never immune from a blending of his own subjective interpretative and expressive forces, nor from the rules of conduct he is internally and externally subject to, by himself or others —, I have here restricted their investigation to a minimum necessary in order to demonstrate the thesis of their rhythmicality, presenting four temporal complexities only, defined below, by their relative or potential, affirmative or negative, future- or past-bound compositional orientations.

Fundamental rhythmical forces

The creative power of *determination*, here understood as the one that orients the manifestation and evolution of musical past(s) and musical future(s), I call *dramatic*. And the creative power of *non-determination* that otherwise deconstructs or is antithetical to them, I call *lyrical.*[14]

In this respect, what I call dramatic musical time implies a vital urge shed between the causes and their effects, something like a force of relative compliance and linearity, but also of unity and homogeneity, of complement and coherence (which tends to be presented in several thematic forms). There are musical pieces completely dominated by this urge. A classical and strong example is Beethoven´s *Fifth Symphony, in C minor, Op. 67, first mov.* (1808), in its unrelenting, emphatic demonstration of musical development. Other examples may be mentioned in the context of imitative techniques, such as Bach´s *Fugue in G minor*, BWV 578 (1707) in which a temporal linearity is easily observed in the constant unfoldment of musical forms.

What I call lyrical musical time implies otherwise a more radical openness of one's subjectivity to novelty and problematization. It is a force of relative non-compliance, a type of attention of a superior order; a force of the perception that constantly plunges towards the present moment, but also towards diversity, heterogeneity, contrasts and non coherence (which tends to be presented in non-thematic ways). There are musical pieces in which this openness is thoroughgoingly called. Rhythmically complex music, as Brian Ferneyhough´s *Mnemosyne* (1986) or Karlheinz Stockhausen´s *Klavierstücke V* (1954), for example, come to mind. There are also other musical pieces in which this sort of openness is texturally, fully, subtly or momently called, as for instance in Henry Cowell´s *The Banshee*, for piano strings (1925), or in Salvatore Sciarrino´s *Canzona di Ringraziamento per flauto* (1982), or yet Georg Friedrich Haas's *String Quartet No.2* (1998).

The dramatic musical time is, thus, a time oriented towards comprehensibility, methods, logic, rules, laws and inevitability, etc., and is opposed by the lyrical one which, conversely, heads towards mystery, chaos, surprise and insubordination, etc. All in all, the dramatic

[14] Lyricalness happens, we may say oriented by Bergson, as attentive contemplation, whereas dramaticism as the lack of such attention, as expectation or remembrance. In any case though one may find a gradualness. St. Augustine refers to these notions as follows: "suppose I have to recite a song I know by heart. Before I begin, my expectation is directed to the whole poem, but once I have begun, whatever I have plucked away from the domain of expectation and tossed behind to the past, becomes the business of my memory, and the *vital energy* [my stress] of what I am doing is in tension between the two of them: it strains toward my memory because of the part I have already recited, and to my expectation on account of the part I still have to speak. But my attention is present all the while, for the future is being channeled through it to become the past. As the song goes on and on, expectation is curtailed and memory prolonged, until expectation is entirely used up, when the whole completed action has passed into memory." St. Augustine of Hippo, *Confessions*, ed. David Vincent Meconi, S. J. (New York: New City Press, 2012), 361. On Augustine's thesis on time, see also Paul Ricoeur, "The Aporias of the Experience of Time: Book XI of Augustine's Confessions," in *Time and Narrative,* vol. 1, trans. David Pellauer (Chicago: The University of Chicago Press, 1984), 5-30.

musical time is dialectically opposed to the force of 'presentification'[15] and diversity of the lyrical time, bringing to it a certainty of 'movement'[16] and unity.

In order to preliminarily illustrate the whole discussion on the rhythmic idea, as follows, the creative orientation towards determinations and non determinations may be musically 'translated', as it were, into two general compositional principles, two fundamental 'temporal images': a centripetal image of *movement* (spatially oriented, hence articulative and aligned with the powers of understanding); and a centrifugal image of *presence* (durational, therefore 'continuative' and processual, aligned with the powers of sensibility). An image of *movement*, because certainty and determination, that is, dramaticism, in fact depend on a kind of 'cognitive temporal movement' that constantly favours the before and the after in opposition to the now: one is constantly 'pulled in and out' from and to diverse causes and effects in order to understand their links and establish a generalisation. An image of *presence*, because uncertainty and non-determination — lyricalness — really seem to depend on the maintenance of a sort of 'presentifying cognitive state', a state of superior attention that favours the now *against* the before and the after, (Fig. 3.5).

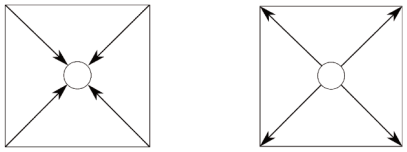


Figure 3.5: Representation of the temporal images of *movement* and *presence*. The temporal image of movement is centripetal and deterministic. It stands as a fundamental compositional principle related to the manifestation of musical linearity and coherence, formal unity and homogeneity, etc. The temporal image of presence, otherwise, is centrifugal and non deterministic. It is a grounding compositional principle related to the manifestation of contrasts, suspensions, formal expansions, etc., of non coherent compositional operations.

In our current practice, music composition is preponderantly guided by one of these two general compositional principles. But nothing prevents the manifestation of both temporal orientations in a same creative process, in different degrees. Lyrical moments may follow dramatic ones and vice versa. A dramatic moment may be gradually transformed into a lyrical one, and the same may occur in the other way around. Both compositional tendencies may orient a same moment in a polyphonic manner, etc. These are main compositional temporal fluxes that potentially accept infinite combinations.

Moreover, I propose that these main temporal tendencies are constantly re-qualified, as it were, during a compositional process, by secondary ones — and specially in the compositional context of musical microform(s), in which local temporal manipulations and transformations of musical matter are frequently necessary. This temporal re-qualification is sometimes *reiterative*, sometimes *differential*. It is my suggestion that, within this specific context of a temporal requalifying, repetition is musically received as a sign of the past, and difference as a sign of the future. 'A sign of the past', because, in common sense, rep-

[15] See Jonathan Kramer's detailing of Stockhausen's moment forms, in Kramer, *The Time of Music...*, 207. See as well the point of view of Stockhausen in "Lyric and Dramatic Form," in *Stockhausen on Music...* , 53-75.

[16] Movement in a Bergsonian sense, that is, in the sense of the vital dynamism of one's subjectivity, in the sense of the activity of one's intimate time.

etition is always pointed towards something that has happened, to a recollection (of course, there is another, profound repetition that 'repeats only itself', as particularity, instead of something else as generality, to say it with Deleuze,[17] but this is not the case of the repetition here referred). 'A sign of the future', because, as common sense indicates, difference is always pointed towards something that may eventually happen, to something that may or may not be, to a possibility. Having in mind these matters, based as they are on the reiterative and differential constitution of the idea, as elaborated by Bergson and Deleuze, I argue that a reiterative re-qualification of musical time concerns a transient temporal quality which both contracts, *closes* (in the dramatic case), or expands, *opens* (in the lyrical case) the notion of musical past; while, in turn, a differential re-qualification concerns a similarly transient quality that results both in the contraction (in the dramatic case), or expansion (in the lyrical case) of the notion of future in music, (Fig. 3.6).

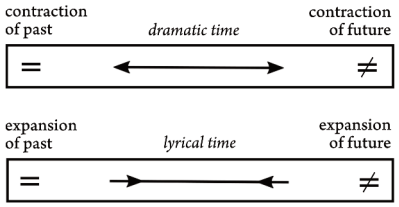


Figure 3.6: Repetition and difference requalify musical time in different ways. A reiterative dramatic time *contracts* musical past, while a reiterative lyrical time *expands* it. In the same vein, a differential dramatic time *contracts* musical future, while a differential lyrical time *expands* it. This is the same as saying that in a dramatic musical context identities are systematically renewed and replaced over themselves, and the possibility and viability of variation are strongly controlled, in some cases even neutralised by determinations. As much as saying that in a lyrical musical context identities are systematically questioned or neutralised, and the possibility and viability of variation are motivated by non determinations.

It happens to be so because, from a reiterative standpoint, these temporal formulas reflect a primordial subjective impulse of contraction, a force that pulls together a subject in relation to his own past, but which also takes the form of a revaluation of the past. And because they also reflect, from a differential standpoint, a primordial contracting impulse of one's subjectivity that faces the determination in the future, the destiny, which is held as a promise, but which can also be questioned and conquered, and held as unfoldment and evolution. This temporal requalifying can be musically translated as well into two other general compositional temporal images: a centripetal image of *permanence* and a centrifugal image of *change*. *Permanence*, because, under the sign of the most external repetition, there is a strong tendency of everything to remain the same. *Change*, because, under the sign of difference, this tendency is challenged and everything tends to become anew, (Fig. 3.7).

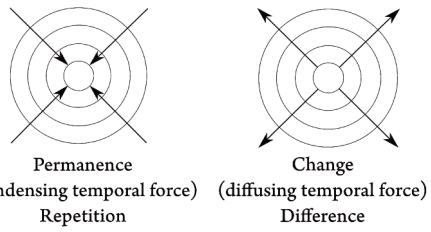


Figure 3.7: Representation of the temporal images of *permanence* and *change*, which requalify the general temporal orientation of dramaticity and lyricalness.

[17] According to Deleuze, "to repeat is to behave in a certain manner, but in relation to something unique or singular which has no equal or equivalent. And perhaps this repetition at the level of external conduct echoes, for its own part, a more secret vibration which animates it, a more profound, internal repetition within the singular." Deleuze, *Difference and Repetition,* 2

Movement and Permanence

Thus briefly, the compositional merging of temporal images of *movement* and *permanence* renders a new image that is very contractive; composed by a general strong deterministic, dramatic tendency and by a reiterative attitude: the past is contracted. Observe, as an example of this compositional image, the first measures of Bach's *Toccata and Fugue in F Major* BWV 540 (1731), (Fig. 3.8), in which a pedal unifies the general design, while the canonic exposition constantly reaffirms the melodic flux:

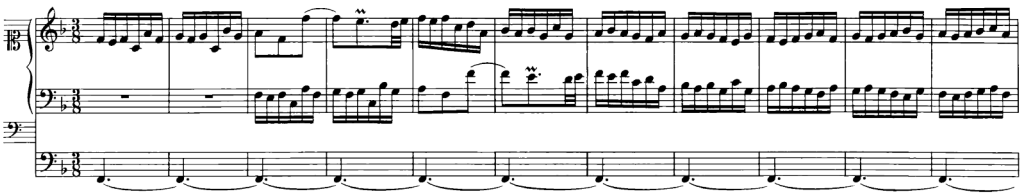
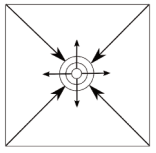


Figure 3.8: Bach's Toccata and Fugue in F Major BWV 540 (1731), excerpt.

The merging of the temporal images of *movement* and *change* renders, on the other hand, a composition that, even though internally differential, is externally ruled by a general strong deterministic, dramatic tendency: the expansive force of the future is controlled. Observe, as an example of this image, the 'unified differential process' in the course of some thematic variations in Beethoven's *7 Variations on 'Bei Männern, welche Liebe fühlen'*, (1801), (Fig. 3.9):



Movement and Change

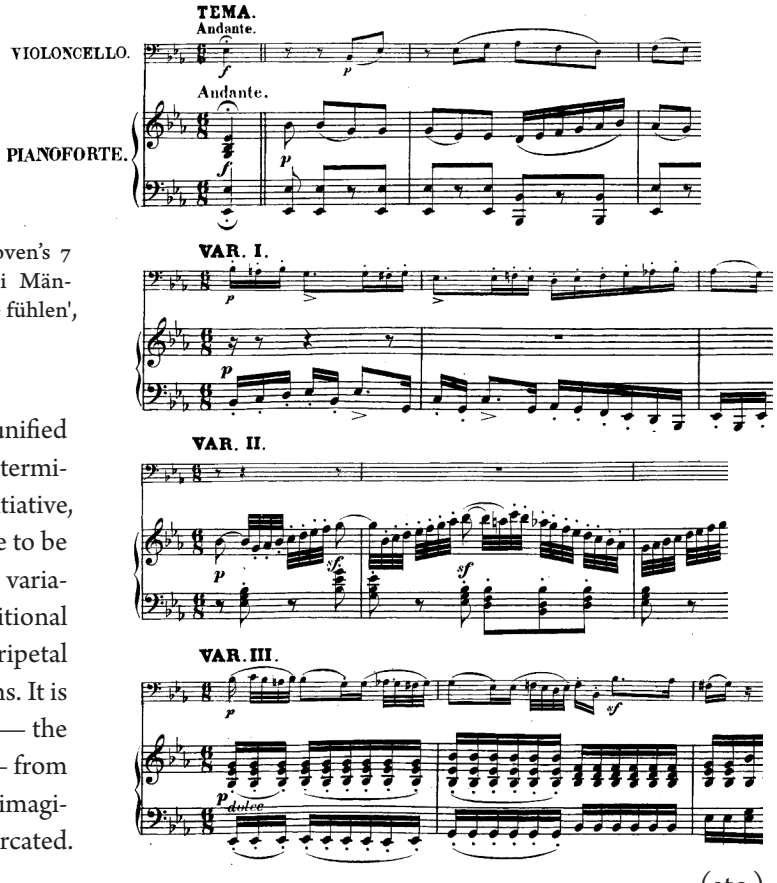
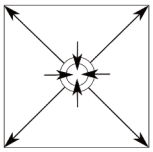


Figure 3.9: Beethoven's 7 Variations on 'Bei Männern, welche Liebe fühlen', (1801), excerpt.

Beethoven's variations are unified by cadential and melodic determinations. There is a differentiative, centrifugal, attitude there to be perceived throughout the variations, although the compositional process is necessarily centripetal all through the variations. It is dominated by a *cause* — the theme and its character — from which the bondaries of an 'imaginative territory', are demarcated.

(etc.)

The merging of the temporal images of *presence* and *permanence* renders another kind of composition, which is externally centrifugal, but internally contractive temporally. Now, to a general non-deterministic, lyrical compositional tendency is added a reiterative attitude, a lyrical repetition, that 'repeats exceptions': the past is reviewed. Observe, as an example of this image, the continuous flux of contrasting melodic expansions in the first measures of Varèse's *Density 21,5* (1946), (Fig. 3.10), in which the 'scope' of thematic features (their melodic and rhythmical complexity) is gradually amplified by means of a continual use of contrasting melodic and rhythmic manipulations.



Presence and Permanence

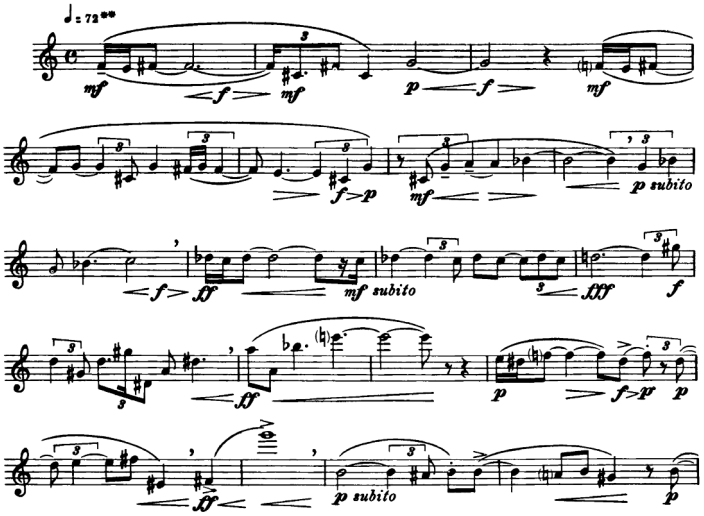
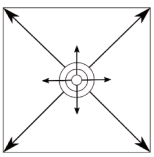


Figure 3.10: Varèse's Density 21,5 (1946), excerpt.

The merging of the temporal images of *presence* and *change* renders yet another composition type, fully expansive, in which to a general non-deterministic, lyrical compositional tendency is added a difference that 'amplifies the future', that 'multiplies exceptions'. Observe, as an example of this image, the dense and complex flux of variations in Ferneyhough's *Unity Capsule* (1975), (Fig. 3.11):



Presence and Change

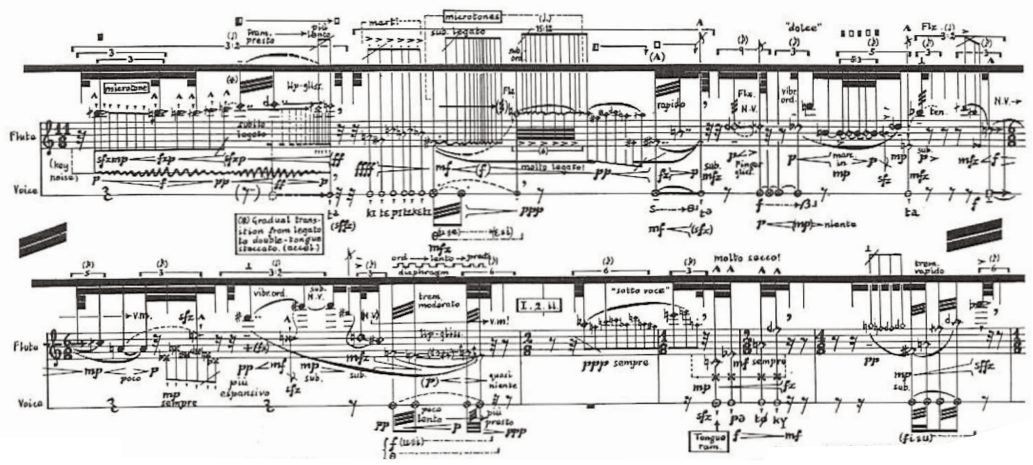


Figure 3.11: Fernehough's *Unity Capsule* (1975), excerpt.

My approach to these notions (of determination, non-determination, difference and repetition) is generally delimited by the *rhythmical quality* of the duration that is ontologically established between our sensibility and understanding during a compositional act (which obviously reflects one's living sensible and intellectual experiences in general, their volume, intensity and complexity).[18] Clearly, I do not pretend to reflect on the transcendental foundations of this quality, as Bergson does,[19] but to investigate it only in the perspective of the construction of a piece of music only.

In this precise perspective, I have suggested that our experiences in general and in music 'oscillate' in a rhythmical way between the concrete thing and its concept, between how we see or hear or touch or feel and how we understand what we see or hear or touch or feel: sometimes we better understand, something we better perceive a thing, including all we feel about it. On this, we should return, for a moment, to the Bergsonian-Deleuzian reasoning on movement and duration. As we have seen, it is regarding interchange and exchange of meanings that Deleuze, commenting on Bergson's theses on movement and duration, argues that

> in a sense movement has two aspects. On one hand, that which happens between objects or parts; on the other hand, that which expresses the duration or the whole. The result is that duration, by changing qualitatively, is divided up in objects, and objects, by gaining depth, by losing their contours, are united in duration. We can therefore say that movement relates the objects of a closed system to open duration, and duration to the objects of the system which it forces to open up. Movement relates the objects between which it is established to the changing whole which it expresses, and vice-versa. Trough movement the whole is divided up into objects, and objects are re-united in the whole, and indeed between the two 'the whole' changes. We can consider the objects or parts of a set as *immobile sections*; but movement is established between these sections, and relates the objects or parts to the duration of a whole which changes, and thus expresses the changing of the whole in relation to the objects and is itself a *mobile section* of duration. Now we are equipped to understand the profound thesis of the first chapter of [Bergson's] *Matter and Memory*: (1) there are not only instantaneous images, that is, immobile sections of movement; (2) there are movement-images which are mobile sections of duration; (3) there are, finally, time-images, that is, duration-images; change-images, relation-images, volume-images which are beyond movement itself...[20]

According to this notion, everything we experience, musically or not, though musically

---

[18] On the notion of intensity, see Joe Hughes, *Deleuze's Difference and Repetition, a Reader's Guide* (London: Continuum, 2009), 150-154.

[19] On this, Bergson also says that "however brief we suppose any perception to be, it always occupies a certain duration, and involves consequently an effort of memory which prolongs one into another a plurality of moments. As we shall endeavour to show, even the subjectivity of sensible qualities consists above all else in a kind of contraction of the real, effected by our memory. In short, memory in these two forms, covering as it does with a cloak of recollections a core of immediate perception, and also contracting a number of external moments into a single internal moment, constitutes the principal share of individual consciousness in perception, the subjective side of the knowledge of things." Bergson, *Matter and Memory*, 25.

[20] Deleuze, *Cinema I* ..., 11.

in special, 'pulses' between two modes of cognition: between instantaneous images, that is, immobile sections, which are dramatic, formal, conceptual, closed, spatially well-defined images, and pure temporal, lyrical, sensible, duration-images, (see Fig. 3.12).

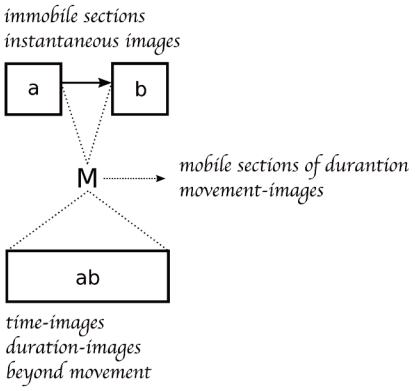


Figure 3.12: Our experiences 'pulse' between two modes of cognition, between immobile sections, 'instantaneous images,' and 'duration-images'.

The fundamental rhythmicality I here propose is in the middle of this creative play of temporal images.

When we approach things with our best attention, we are performing a kind of lyrical act. If this lyrical act addresses concreteness and the sensible, in its myriad of differential intensities, addresses 'difference in itself', to say it with Deleuze, then the powers of difference, the future, are in a sense 'liberated' within us. If, otherwise, this lyrical act addresses concepts, thoughts in general, generalisations, equalities and similarities, deep and shallow memories, then we are able to 'reconsider' those powers of repetition that, in another sense, were viciously defining our past, our values, our certainties. The past is now offered back, renewed, to our creativity.

However, when we approach things but with poor attention, we are in another way performing a kind of dramatic act. If this act addresses concreteness and the sensible, then the powers of difference — the future —, becomes 'controlled', delimited within us. If, otherwise, this dramatic act addresses concepts, memories of all kind, then the conceptual image and the values it conveys are celebrated and confirmed. The past remains the same.

The frequency of change between these modes and their mutual rhythmical influence set the actual meaning of our ideas in general and consequently of our musical ideas as well. These meanings interchange and exchange both, from *the inside out*, the rhythmicality of musical forms perceived at the surface of a musical piece; and, *from outside in*, the rhythmicality of more abstract temporal notions, those which address music also in terms of conceptual and ideal forms.

On musical dramaticism

Musical dramaticism is thus closely related to the manifestation and consolidation of musical thematicism, to compositional processes of building virtual 'bridges of recognition' between thematic elements. We observe these bridges in a lot of tonal pieces, like Chopin's *Mazurka*, Opus 24, no. 1 (1836), for instance, (Fig. 3.13), acting as two-folded compositional force in which dramaticism is established both from the past-like (usually involving melodic characterisation of motives) and the future-like (usually involving harmonic directionality and cadential formulas) points of view of coherence and integration.

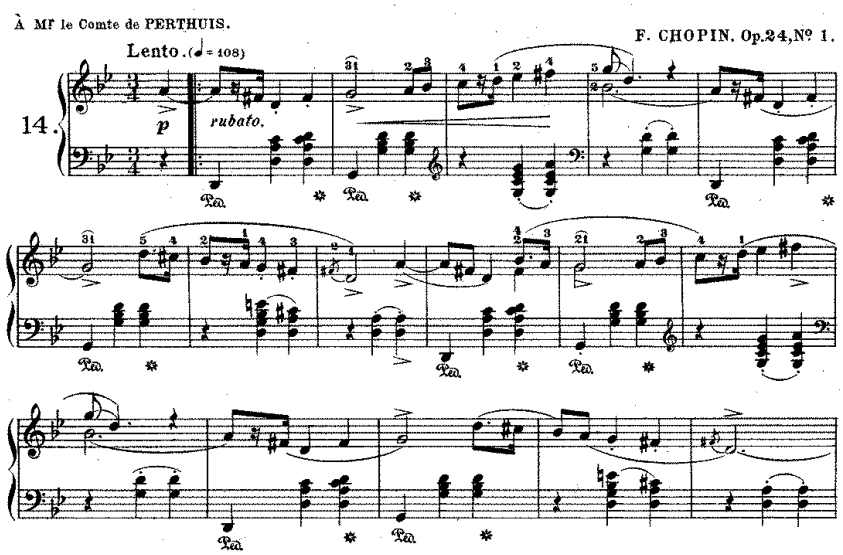


Figure 3.13: Chopin's *Mazurka*, Opus 24, no. 1 (1836), excerpt.

Musical dramaticism is causal, teleological, and thus involves of necessity the building of 'logical links', the affirmation of the cause by all its possible or plausible effect(s). Stockhausen corroborates this argument, evidencing this orientation from the perspective of the technique of musical development, when he says that

> in the history of classical western music, development, [...] plays an increasingly important role. At the same time [...] we find the number of themes becoming fewer, from three to two, sometimes even a single theme. Schoenberg's Third String Quartet [1927] takes this tendency to an extreme: as he said, 'everything is development'. [...] Dramatic means to present figures, protagonists, as in Greek drama, and then develop to lead these figures to all different kinds of experiences. [...] Dramatic means that you can always follow the thread [...].[21]

Moreover, reflecting on his *Kreuzspiel* (1951), Stockhausen draws a clear image of dramaticism, when he posits that

> Development as a method of composing is governed by the arrow of time. If you listen carefully to the first movement of *Kreuzspiel*, what you hear in the piano are six notes in the

[21] Stockhausen, *Stockhausen on Music…*, 54-55.

highest octave and six notes in the lowest octave. During the movement, each note crosses over, one by one, passing through the seven octaves, until at the end of the movement the six notes that start in the highest octave are in the lowest, and vice versa. The development process can be clearly perceived because as each note crosses into the three middle octaves, it is picked up and played by two other instruments, bass clarinet and oboe. So the middle region gradually fills up towards the middle of the movement, and then empties again as the notes continue out to the edges. But it is a clear development, lasting all of two minutes.[22]

The 'arrow of time' installed in the transpositional cycle of the basic series of *Kreuzspiel*, (Fig. 3.14) is a necessary condition to the presentation of a fundamental dramatic time.

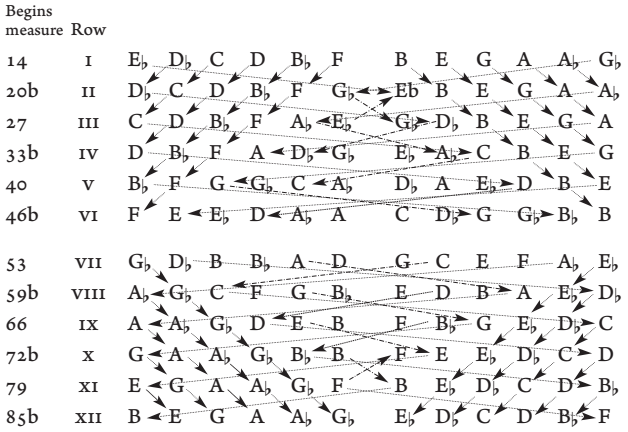


Figure 3.14: Pitch rows and their derivation in Stockhausen's *Kreuzspiel* (1951).

Then again, the technique of presentation serves the composition of the musical idea, which confounds itself, in this case, with the composition of the drama. It does it by means of a cross displacement of the series on the surface of the musical piece, from one extreme register of the piano to the other. The piece is subject to a complex twelve-stage rotation, which culminates in a complete reversion of the two main hexachords of the series, forming a mirror image. This strategy of displacement is guided by certainty, by a goal, it is a destiny-personification that promotes, through the many varied repetitions of the series almost in sequential form, the repetition of a sameness which progresses systematically within the constant manifestation of difference.

Indeed, the dramatic time is here wanted as a 'moving thing'. It is referred to an abstract notion of movement that always involves the fluency of the before and the after; it also one's musical creation and representation inevitably and to this same fluency. Moreover, this fluency seems to work as a Bergsonian *dramatic diagram*, in itself a necessary condition for accessing instances of conceptualisation. This notion implies that we are in position to contemplate the identity of something only because we are able, first of all, to privilege the thing's afterness and beforeness, that is, by generalising its presentness. That considered, the work of musical dramaticism and the work of thinking in general really

[22] Stockhausen, *Stockhausen on Music…*, 55.

appear to be one and the same — a notion also held by Deleuze. In addition, past and future temporal notions may yet be seen as functions of actual spatial movement. In other words, our motional sense and our 'dramatic sense', so to say, seem to be mutually implicated. Accordingly, it is by means of this more comprehensive notion of mobility that the dramaticism presented in a musical piece also finds its meaning in the world's dramaticism.

On musical lyricalness

Musical lyricalness is here related to the manifestation and consolidation of many athematic or 'anti-thematic' compositional process. Textural-spectral music, such as Tristan Murail's *Désintégrations* (1983), (Fig. 3.15), are good examples of this practice, in which we observe a "constant flux of the music between moments of order and consonance to moments of disorder and noise as the primarily harmonic spectra are disintegrated and deformed into irregular and inharmonic ones."[23]

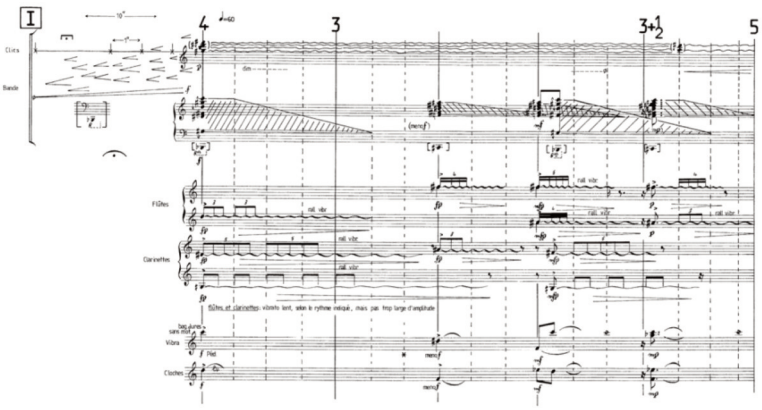


Figure 3.15: Tristan Murail's *Désintégrations* (1983), excerpt.

This alluded flux from moments of order into moments of disorder, from consonance into noise is lyrical. In it, as expected in a lyrical context, irregular features do not comply to a general rule or a sense of regularity, quite on the contrary, it is the regularity that abides by a general sense of irregularity. One may also picture this and other similar lyrical compositional formulas 'in reverse', considering them, for example, from the perspective of Palestrinian counterpoint, in which moments of order and consonance are privileged, while dissonance (disorder) controlled. One may consider, for example, the technique of suspension in which dissonances are used only in restricted forms and in places where they do not produce an obtrusive effect. Clearly, the Palestrinian suspension enforces the submission of dissonance, while in Murrail's piece dissonance is liberated. The compositional work here is preponderantly athematic and follows the formal sense conveyed by most spectral works that "do not utilise thematic material, and are not motivic in construction. [...That do not] make use of any repeating harmonic elements, and the rhyth-

[23] Julian Anderson, "Note on Désintégrations," *online*, www.tristanmurail.com.

mic language appears to be vague at times."[24] Vagueness, systematic differentiation, dissipation, etc. (which are musical qualities that underlie the general notion of non-determination), may be seen thus as strong lyrical structural musical features.

Some compositional ideas by Stockhausen about musical athematicism are also appropriate to the contextualisation of compositional lyricalness. In the context of his *Carré* (1959), for four choirs and orchestras, for example, Stockhausen says that the conscious avoidance of building thematic relationships led him to approach some alternative instantaneous forming processes, which he himself also describes as lyrical. In *Carré*, he says,

> I tried for the first time to concentrate on instantaneous forming, or the forming of moments. It was, as many people wrote at the time, quite *illogical* [my stress], a complete reversal of normal musical convention. I worked on the basis of starting with the here and now, and then we will see if there is any past and future. This led to the approach I now call lyric, and in our Western tradition the composition of lyric forms are very rare, given the predominance of sequential and developmental conventions.[25]

For Stockhausen, musical lyricalness is mixed up with the notion of 'here and now.' However, the lyricism indicated by Stockhausen is slightly different from that that I propose. Lyricalness is here approached from the standpoint of *a possible now*, a kind of now established among other ways of perceiving and understanding the present reality. All in all, Stockhausen's musical lyricalness is motivated by a general, *diffuse* concept of presentness, while in here presentness is itself understood in a deep compositional context as a heterogeneous *creative force*, as temporal complexity.

This perspective is concerned, furthermore, with privileging the emergence of strategies to accessing concreteness, aligning with Bergson's intuitive philosophical approach: lyricalness is not the same with the here and now, but rather a transcendental force firmly committed to *grasp*, so to say, the here and now; a force eternally driven by and towards an impossible resolution, source of a profound creativity.

The lyrical time is here willed as 'presence'. This abstract notion always involves a negation of the fluency of the before and the after, referring one's musical creation and representation preponderantly to this negation, which seems to work as a *lyrical diagram*. It means that we are in a position to contemplate a thing's concreteness only because we are able, first of all, to avoid the thing's afterness and beforeness, that is, by concentrating our attention on its presentness. Hence, and again, the work of musical lyricalness appears in this way to be one and the same as the work of perceiving in general — a notion also held by Bergson. In other words, it would be by the more comprehensive notion of presentness that the lyricalness of a musical piece finds meaning in the lyricalness of the world.

---

[24] Anthony Cornicello, *Timbral Organization in Tristan Murail's Désintégrations* (PhD diss., Brandeis University, 2000), 114.

[25] Stockhausen, *Stockhausen on Music…*, 59.

On repetition and difference

I have suggested above that both musical dramaticism and musical lyricalness assume, in their dialectical relation, subsidiary temporal influxes of difference and repetition — which are in fact necessary and wanted in most cases.

Reaffirming these notions, I argue the temporally contracted compositional act flows creatively as if 'deviating from the dialectical opposite' by means of coherent compositional operations that establish 'orbits of sense', so to say, around particular, unique impressions. Complementarily, the temporally expanded compositional act flows creatively as if imbued, inspired with more impetus 'towards the dialectical opposite' by means of contrasting compositional operations.

With this in mind, I thus suggest that temporal contractions and expansions only happen actually within a given dramatic or within a given lyrical compositional context, respectively. Dramaticism, in its predominant relation to the conceptual thing, contracts repetition and difference. Lyricalness, in another way, in its predominant relation to the actual, concrete thing, expands them, the past and the future.

The dramatic past is a *closed* past, an 'attached-like' actual past, that exists only within itself, and deeply inscribed within a feeling of *nostalgia*. The dramatic future is a kind of '*necessity-like* future', a *closed* future dominated by a cause, or a set of causes or rules, by a form and a destiny. The lyrical past, otherwise, is a kind of *open* past, a 'past that becomes', that is constantly reconsidered from the point of view of the present moment, that deconstructs itself, and negates itself, a kind of 'vague pastness', a sort of 'detached-like' musical past informed by a sense of *loss,* by different degrees of forgetfulness. And the lyrical future is something like a 'certain or anti-future', an *open* '*absent-like*' future with no causes.

For, accordingly, as far as musical creative processes are concerned, there seem to be *two musical pasts* and *two musical futures,* (Fig. 3.16):

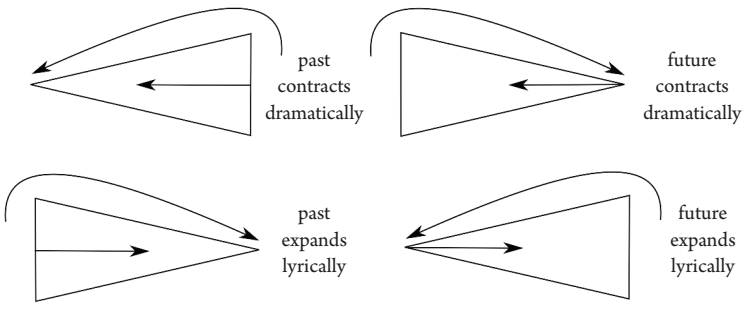


Figure 3.16: *There are two musical pasts*: a musical past that contracts dramatically, which is strongly turned to itself by means of its own repetition, always *closing* itself, and a musical past that expands lyrically, also by means of repetition, which is however always turned to the present moment, *opening* itself. *There are two musical futures*: a musical future that contracts dramatically, turned to itself, and always *closing* itself by means of a systematic control of difference, and a musical future that expands lyrically also by means of difference, always turned to itself and *opening* itself.

(i) a musical past that contracts dramatically, as repetition, closing itself, and is turned into a refrain; (ii) a musical past that expands lyrically, also as repetition, though as a different repetition, motivated by non determinations, which opens itself and, while doing so, also opens the refrain; (iii) a musical future that, however differential, contracts and closes itself dramatically, becoming routinized; and (iv) a musical future that expands lyrically, as true difference, and opens the routine.

Moreover, other important dialectical relations emerge from the tensional differences that manifest themselves *between* the notions of nostalgia and loss, commented above, which informs us the 'complex pulsation' of musical past. The same happening with the tensional differences that are revealed between the notions of necessity and absence, which also informs us of the complexity of the 'yet to come-pulsation' of musical future.

These antagonistic images of past and future are easily pictured in music.

Oriented by repetition, musical thematicism works in the perspective of a self-referential past, while musical athematicism works in the now in the perspective of the deconstruction and problematization of the past: in the first case, the thematic element is constantly turned back, folded onto and reaffirming itself, and the stronger this refrain, the stronger the general sense of immobility in music (that is, the sense of stasis conveyed by the repetition of a determinate musical element or aspect in the perspective of musical dramaticism); in the second case, if something eventually still remains, it is not by necessity, but happens as a kind of reverberation, as 'resonance.'

Thematic and athematic compositional procedures that are oriented by difference, on the other hand, usually work in the perspective of musical variation. With the difference that, from a dramatic viewpoint, variation does privilege musical progression and consequently the establishment of a general sense of musical motion (that is, the sense of progress conveyed by the differentiation of a determinate musical element or aspect in the perspective of musical dramaticism), while, from a lyrical point of view, because the general sense of presentness a lyrical composition conveys, and because, in this case, sometimes there are even no clear element or aspect to be set in progress, variation does not result in or seek musical motion but, on the contrary, to cancel it (that is, the sense of 'open stasis,' or of resting in abeyance or suspension generally conveyed by differential compositional procedures in the perspective of musical lyricalness).

In the next pages, I readdress some previous arguments from a more pragmatic and schematic point of view, and provide some short compositions and additional applied musical examples, aiming at demonstrating and contextualizing the matter a little further.

II – THE FIRST RHYTHMICALIZATION PROCESS

It has been my suggestion that specific creative orientations emerge in the midst of the experience of musical composition, as the outcome, the produce of a particular rhythmical interplay, a 'mixture' of temporal tendencies.

Returning briefly to the previous arguments in a more schematic way, it was argued that this mixture is grounded by a fundamental temporal linkage of understanding and sensibility powers, in all that in understanding is implied about the products of thinking and processes of conceptualisation, the manifestation of generalisations and, from them, of determinations, including important intellectual attributes as 'the meaning', 'the language', and 'the social construct'; and also in all that the notion of sensibility implies about the uncountable ways the world is individually perceived and, now returning to Bergson's thesis, on the reach or power of the individual attention,[26] (Fig. 3.17).

Understanding	Sensibility
Determination	Non-determination
social	individual
concept	experience

Figure 3.17: The temporal grounds of musical composition is composed itself by two creative forces, by *determinations*, oriented to and by understanding, and by *non-determinations*, guided by and towards sensibility.

Moreover, it has been suggested about this mixture that in case of being it preponderantly oriented by the understanding, the creative act operates in a dramatic way. That is, it operates linearly, teleologically, linking past and future events causally and stands as a sign of movement. It also has been suggested that, being the case, this mixture be otherwise oriented by sensibility, then the creative act 'opens up' causality, so to say, favouring the non-determination of past and future events, that is, operating in a lyrical way, rupturing the code, the rule, becoming risky and adventurous, and standing as a sign of presence, (Fig. 3.18).

Determination	Non-determination
[D]ramatic (movement)	[L]yrical (presence)
[r]epetition (permanence)	[d]ifference (change)

Figure 3.18: Musical dramaticism and lyricalness are respectively boosted by linearity and non-linearity, by determination and non-determination; and are temporally re-qualified by reiterative and differentiative creative processes.

In addition, it also has been argued that dramaticism, [D], and lyricalness, [L], both receive further rhythmical orientations from reiterative, [r], and differentiative, [d], creative processes, repetition standing complementarily as a sign of past, of memory, of permanence, and difference as a sign of future, imagination and change, (Fig. 3.18).

[26] Bergson, *Matter and Memory, 14.*

Moreover, it is from the blend, the rhythmicalization of these fundamental temporal forces that more elaborated temporal mixtures emerge, now involving well-defined classes of musical past(s) and future(s). (i) We may now reason out about the emergence of a contracted, determined past from the mixture of dramaticism and repetition [Dr], musically marked by the manifestation of the motif, the *refrain*, the thematic feature or gesture, the memorable contour or intensity, etc.; (ii) about the emergence of an expanded, open and non-determined past from the mixture of lyricalness and repetition [Lr], musically marked by the manifestation of the variation or unfolding, by the development of the thematic feature and all sorts of transitions, bridges, and compositional manipulations, by subtraction or addition, by multiplication, inversion or retrogradation, etc.; (iii) or yet about the emergence of a kind of contracted, controlled future, from the mixture of dramaticism and difference [Dr], musically marked now by unifying rules, homogeneity and complement, by the impulse towards coherence and invariance, towards the control of formal expansion, etc.; and finally (iv) or yet about the emergence of an expanded, uncontrolled, open future from the mixture of lyricism and difference [Ld], musically marked by diversifying compositional operations, by formal unbalance and heterogeneity, all sorts of contrasts, 'windows' and 'explosions',[27] (Fig. 3.19).

[D+r]	[L+r]	[D+d]	[L+d]
contracted past	expanded past	contracted future	expanded future
motif	variation	unifying	diversifying
refrain	transition	homogeneity/ complement	heterogeneity/ contrast

Figure 3.19: Temporal requalification of fundamental temporal forces. In which [Dr] stands as 'dramatic repetition', a contracted past; [Lr] as 'lyrical repetition', an expanded past; [Dr] as 'dramatic difference', a contracted future; and [Ld] as 'lyrical difference', an expanded future.

This hypothesis implies that determination and non-determination, difference and repetition, are all-pervading temporal intensities, spreading throughout the duration that lasts creatively between sensitive and intellectual impulses, allowing us infinite (musical) interpretations of the world, and of music as well in its relations to the world.

A grounding temporal complexity of this kind is comprehensively envisaged by Bergson but also by Bachelard: on the one hand, it is integrally formed, with no rupture, by the totality of its own duration(s); on the other hand, it also presents inner opposite, dialectical temporal orientations, which even though opposite do not oppose in a dialectical way, but *perdure in opposition,* entangled one into the other.

In this way, the temporal flux of the (musical) thing or aspect which is non-determined, —lyrical —, may flow, as it were, through and towards understanding, in contrary motion to the temporal flux of the thing or aspect which is determined, dramatic, and flows otherwise through and towards sensibility. In other words, within this grounding subjective temporal dimension, non-determinations give birth to determinations and vice-versa.

[27] See Salvatore Sciarrino, *Le Figure della Musica, da Beethoven a Oggi* (Milano: Ricordi, 1998).

The meeting of these fluxes creates one other ever new rhythmical instances. Determination and non-determination interpenetrate creatively in such an essential and profound way that one might even venture to say that we cannot in fact truly distinguish between them. The very sense of this proposition resides in the fact that, on the ground of our lived experiences, no moments of life can in fact *be* of absolute determination or indetermination *to us*. The rate of determination-indetermination in a given moment is absolutely contextual: there are no determinated or non-determinated things per se but *tendencies* to be so. In reality, our freedom, and consequently our creativity, depends on this — again agreeing with Bergson's temporal thesis, when he asserts that

> in man, the thinking being, the free act may be termed a synthesis of feelings and ideas and the evolution which leads to it a reasonable evolution. The artifice of this method simply consists, in short, in distinguishing the point of view of customary or useful knowledge from that of true knowledge.[28]

Which means that we are free and creative exactly because in any cause, external or internal to us, lies its opposites, the 'anti-causes,' its possibility of being different, offering us, at each moment, the totality of possibilities to come. Our freedom, our creativity emerges precisely from this temporal clash.

Deterministic rhythmical senses

With this in mind, it is my suggestion that the general 'deterministic rhythmical sense' of musical dramaticism is itself composed by two inner senses: the sense of *Characterization,* [C] — that resonates the dramatic repetition, [Dr] —, and the sense of *Routinization,* [R] — that resonates the dramatic difference, [Dd]. Characterisation thus means to affirm, to thematise a given musical form (or aspect) or a feature of it. Routinization means in turn to affirm, to thematise a given 'musical routine' or a feature of it.

Accordingly, I insist, one must conceive of a dramatic compositional sense that demands the enclosure of musical flux within the past by means of strong thematisation, sectional forms, all sorts of repetition, *ritornelli*, etc., and another dramatic compositional sense that demands again the enclosure of musical flux but within the future, by means of a systematic control of musical variation. To be musically dramatic means thus to creatively manifest an applied rhythmicality, the rhythmic fluctuation, a *pulsation* of past and future musical dramatic senses. Senses that exist — or better, are formed — within a strong temporal dynamics determined by past and future thematic materials.

Many analytical techniques in music end up working on models for the systematic demonstration of these dramatic senses. This is the case, for example, of the model of semiological analysis proposed by Jean-Jaques Nattiez on Debussy's *Syrinx* (1913), (Fig. 3.20),[29] in which the pulsation between past and future dramatic senses is clearly estab-

[28] Bergson, *Matter and Memory, 186.*
[29] Cook, *A Guide to Musical Analysis*,159-165.

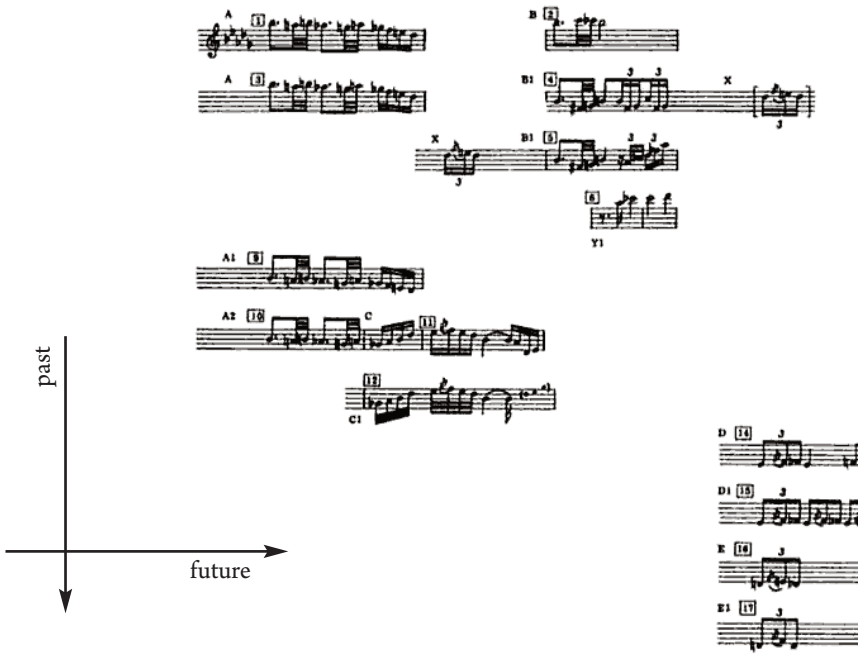


Figure 3.20: Extract from Nattiez's syntagmatic analysis of Debussy's *Syrinx* (1913).

lished: the existence of a musical past is shown as a stratified cumulation of memories — the many instances of *a same*, of reiterative melodic gestures, even when slightly modified, are pilled down as if they all pertain to a same moment —; but there is also a given musical future whose existence must be otherwise induced and defined as difference, becoming necessarily a 'new', potential moment of stratification.

It is a similar notion to that expressed by Alan Forte in his analytical model based on pitch-class sets and their relations in atonal pieces, especially when invoking criteria for the segmentation of musical substance. It is thus that Forte asserts that during the presentation of his analytical model

> [...] several references have been made to *contextual* criteria for segment determination. The term contextual here is intended to cover decisions concerning segmentation which involve references to the local context of the candidate segment or which involve references to non-local sections of the music. It seems virtually impossible to systematize these in any useful way. Certainly, however, *recurrence is a commonly invoked criterion* [my stress]. If a particular segment forms a set that is represented else where in the music, it is probably a legitimate structural component. On the other hand, a segment that forms a set that occurs only once may have its own *raison d'être.*[30]

Thus, recurrence is indeed a commonly invoked criterion indeed and probably also a legitimate structural component when a dramatic sense preponderates compositionally. Moreover, the differential *raison d´être* elegantly referred by Forte is in itself informed by a 'dramatic' attitude in his analyses which privileges the sense of characterization, that observes the musical substance predominantly from the perspective of a necessary de-

[30] Alen Forte, *The Structure of Atonal Music* (New Haven: Yale University Press, 1973), 91.

termination of musical past. This dramatic attitude is perceived everywhere in Forte's structural model based on pitch-class set equivalences, reducible to prime forms by transposition or by inversion followed by transposition, in which (formal) structural coherence is investigated by means of archetypical harmonic formulae.

Nattiez's and Forte's analytical approaches share a similar dramatic temporal attitude, although applied to different expressive strata — respectively to melodic gestures and to harmonic collections. In both cases the suggestion of invariance seems to be almost inevitable. This dramatic inclination shows however a very sensible interpretative problem we need to address: is it really true that only by means of coherent operations would a given compositional process conquer a higher artistic rationale? As far as the quality of musical composition is concerned, is it just a matter of characterizing a given musical past or routinizing a given musical future (by means of the definition and recurrence of a theme, a collection of pitches, etc.)?

Non-deterministic rhythmical senses

The 'non-deterministic rhythmical sense' of musical lyricalness is also composed by two inner senses: the sense of *Non-characterization,* [NC] — that resonates the lyrical repetition, [Lr] —, and the sense of *Non-routinization,* [NR] — that resonates the lyrical difference, [Ld]. To 'non-characterise' means to negate, to a-thematise a given musical form (or aspect) or a feature of it. To 'non-routinise' means otherwise to negate, to 'a-thematise' a given 'musical routine' or a feature of it. Lyricalness negates, dislocates, ignores, deconstructs, etc., musical past and future. In it, both temporal domains are also dynamically and mutually implicated, although in a negative way: a lyrical musical past is a past in constant deconstruction of thematic features, of main and subsidiary elements that are part of the form. In it, musical gestures lose their contours, textural or spectral formulae lose their characteristic energy, etc; a lyrical musical future aims at dismantling the clear moments of formal articulation, blurring cadential functions and musical development proper, etc.

Accordingly, the pulsation of past and future lyricalness is observable is many athematic techniques of musical presentation, including techniques of rarefaction, diffraction, complex serialisation, models of statistical composition, randomisation, etc. Stockhausen's *Klavierstück XI* (1956), (Fig. 3,21), is an example of this practice. It is composed by nineteen fragments of different lengths, each one of them fully notated as to pitch, register, and duration. The player starts selecting a first fragment randomly and decides on its tempo, articulation and dynamics. From this point onwards indications for these parameters are provided at the end of each fragment, which are to be fully applied to the next fragment. The performance ends if any fragment is randomly encountered a third time, allowing for different performances of greatly varying lengths.

In *Klavierstück XI,* a lyrical past is constantly reestablished in response to the potential non repetition of each fragment, as each one is compositionally negated or deconstructed

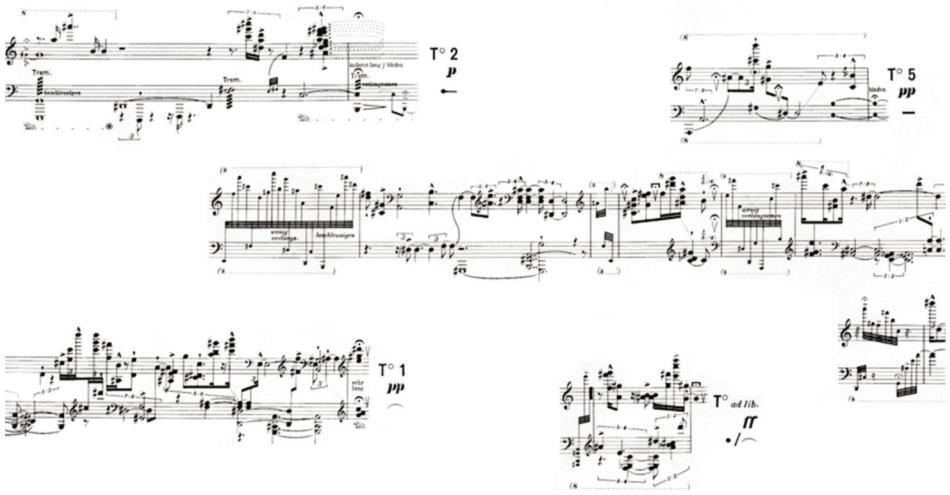


Figure 3.21: Stockhausen's *Klavierstucke XI* (1956), excerpt.

accordingly, by the application of random parametric operations. Moreover, the fragment itself is not varied or developed in a traditional sense, but disguised or dissembled behind many routes of performance. There is no end, finality or point in time to be addressed as a conclusion "bringing about the possibility of an always renewed form, which is to say a unique morphology of the continuity, a unique expressive context, for each performance."[31] Many works of this kind come to mind, by seminal composers, such as Henry Cowell's *Mosaic Quartet* (1935), or Earle Brown's 'mobile' pieces, like *Twenty-five Pages* (1953) or *Modules I and II* (1967), and John Cage's *Music of Changes* (1951). They all have plenty of formal experiments of lyrical extraction.

Primary rhythmical ideas

Thereby I finally identify four *fundamental rhythmic ideas*, that is to say, four fundamental compositional operations that, in theory, guide and control the manifestation (the inspiration) and complexity of the basic temporal design of any compositional process, independently of the musical style.

Now, these fundamental rhythmic ideas are thought as resulting from a more complex and broad rhythmicalization process, (<r>),[32] involving more elaborated rhythmical senses, that is to say, those of characterisation, [C], routinisation, [R], non-characterization, [NC] and non-routinization, [NR].

Next, I detail each one of these ideas, presenting some analyses and contextualizations. They are: the rhythmic ideas of *Closed Refrain,* [CRe] and *Closed Route,* [CRo], and the rhythmical ideas of *Open Refrain,* [ORe] and *Open Route,* [ORo], as I call them, (see Fig. 3.22).

[31] John Cage, *Silence* (London: Marion Boyars, 2009), 35.

[32] The sign '<r>' means *rhythmicalization*. It thus stands as a functional/compositional operation of coordination or mixture of similar or opposite elements forming a given temporal design.

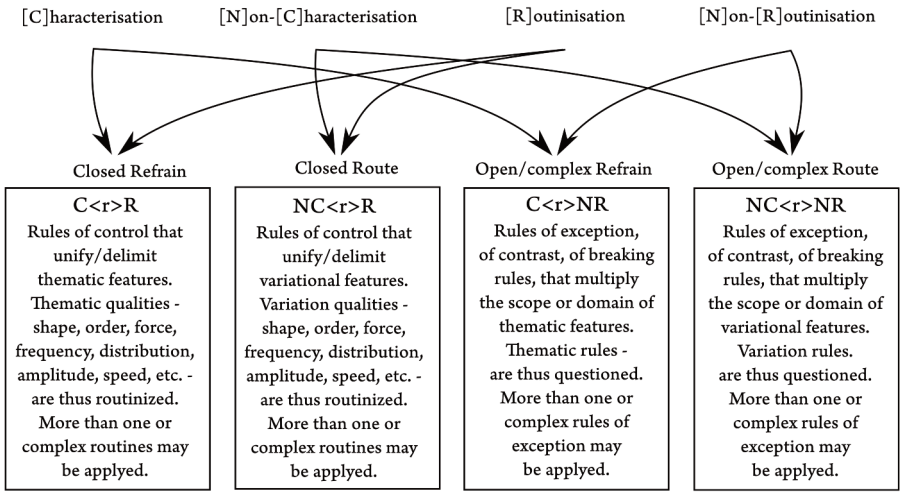


Figure 3.22: General temporal design of primary rhythmic ideas:

(i) Closed Refrain,[CRe], is the product of the rhythmicalization (<r>)
of the notions of characterization [C] and rousitinization [R].
It is related to the compositional delimitation of thematic features.
(ii) Closed Route, [CRo], [NC]<r>[R],
is related to the compositional delimitation of variational features.
(iii) Open Refrain, [ORe], [C]<r>[NR],
is related to the compositional expansion of thematic features.
(iv) Open Route, [ORo], [NR]<r>[NC],
is related to the compositional expansion of variational features.

The rhythmic idea of Closed Refrain [CRe]
Characterization [C] <r> Routinization [R]

I have argued that this rhythmic idea, [CRe], results from the rhythmical interplay, the rhythmicalization of the senses of *characterisation* and *routinization*, as previously discussed. Oriented by it, the compositional process revolves, on the one hand, around operations of thematic consolidation, in building of strong identities, memorable shapes and intensities and, on the other hand, around the maintenance, the keeping of a 'closed future', of formulas of repetition, (see appendix 2).

This rhythmic idea may be thus related to traditional or to innovative forms of musical thematicism, and also related to the building or to the reinforcement of underlying thematic features or to any indirect compositional factors that favour musical thematicism.

It is important to have in mind that rhythmic ideas work as rhythmical levels of temporal complexities of musical ideas. This assumption is indeed complementary to the Deleuzian proposition about the nature of recognition, in which recognition is viewed as involving many senses. Deleuze explains, for example, that recognition is managed by a concept of repetition, though always calling different levels of complexity — different levels of temporal contraction, as it were. It is my suggestion that, in music, one of these levels of recognition is reached precisely by the temporal contraction compositionally promoted by the rhythmic idea of Closed Refrain.

In it, the past is contracted and turned onto itself, confirming itself; while the future is also contracted and, in a similar way, also points to itself, (Fig. 3.23).

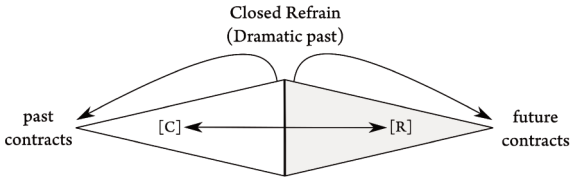


Figure 3.23: Rhythmic idea of *Closed Refrain*, [CRe]: the past and the future are temporally contracted.

An applied compositional example, oriented by this rhythmic idea, is demonstrated below, (Fig. 3.24):[33]

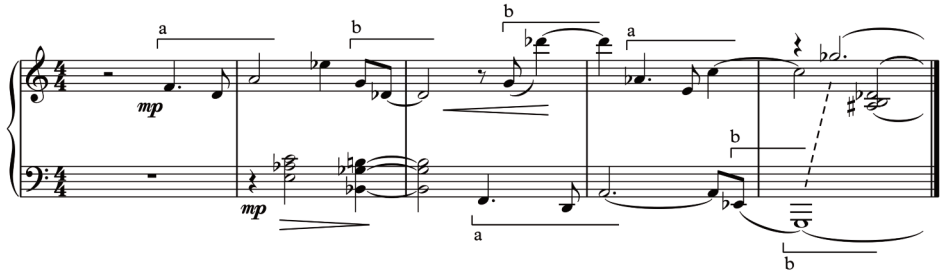


Figure 3.24: Compositional example, based on the rhythmic idea of *Closed Refrain*. It implies the return, the repetition of a given design and the repetition of the rule or rules that orient the manifestation of this repetition. This operation may be well defined or masked, attenuated by other compositional factors, as for example by the contrasting presence of divergent polyphonic elements, or yet by increasing the interval of time between expositions. This rhythmic idea stands as an influent factor in the creation of thematic-sequential forms (which usually favour the manifestation of clear memorable designs).

In the example above, the melodic designs (a) and (b) are reexposed three times in sequence. This operation is guided by the rhythmic idea of Closed Refrain in the sense that a same design is plainly reexposed instead of varied or developed, and also in the sense that its repetition is oriented by a simple compositional rule of alternation. It is dramatic, deterministic, and contracts temporally around sharply delimited impressions, melodic in this case. Memory and the principle of identity are celebrated, and the composition projects creatively this necessity of confirmation and stability.

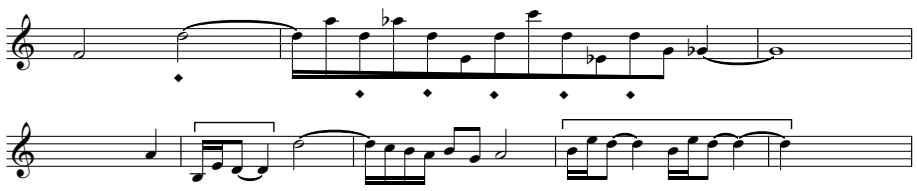


Figure 3.25: The composition of micro designs, under the influence of the idea of *Closed Refrain*.

[33] All compositional examples provided are based on the same series, Po[5, 2, 9, 8, 4, 0, 3, 7, 6, 11, 10, 1], which is the same series in use in *Flegetonte* (see appendix 1).

This rhythmic idea projects its influence both on micro and macro designs. For instance, resulting in a steady pedal note within an ornamental melodic passage, or simply emerging as the repetition of a theme in the context of a melodic cadence, (Fig. 3.25). Moreover, these same notions may also extrapolate their contractive temporal force on other compositional domains — harmonic, timbral, etc. —, or yet be purely formal; grounding, for instance, the design of a section of a piece, a movement, or of a piece as a whole, (Fig. 3.26).

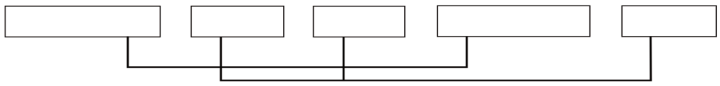


Figure 3.26: The composition of macro designs, is also influenced by the idea of *Closed Refrain*.

Clearly, this rhythmic idea projects both on repetition and on difference a strong temporal contraction that rhythmically crystalises the compositional process in a determinate identity or a number of identities and in a determinate routine or routines. Under its influence, I suggest, perception becomes firmly engaged in a quest for recognition strong (even subtle) impressions able to induce some sort of psychological connection, of temporal agreement. Of course, it may be suggested that this psychological stress on recognition seems to depend anyhow on a preconditioned articulative drive — a drive for articulative motor-diagrams, to use Bergson's jargon — that happens as a predisposition to segmentation: in order to be well determined, the thing must be well delimited, which may mean that, being a thing *segmentally apprehended*, it is so because its virtual, its temporal constitution depends on articulation.

This rhythmic idea always approximates and synthesises by concentrating aspects and elements able to be linked, merged into a wider, comprehensive image, which may represent, at every turn, as many similar aspects as possible: clearly, a thematic process *is* a generalization, depends on the same process in use when doing conceptualisations.

The rhythmic idea of Closed Route [CRo]
Non-Characterization [NC] <r> Routinization [R]

I have argued that this rhythmic idea, [CRo], results from the rhythmical interplay, the rhythmicalization of the senses of *non-characterisation* and *routinization*, as previously discussed. I relate this idea to traditional or innovative forms of (strong or soft) goal-oriented, linear rules of control of the progression of musical variation. Oriented by it, the compositional process revolves around the routinization of operations of thematic expansion, in the building of 'contracting variational strategies'. In it, the compositional process is throughout influenced by a given plot, by a particular objective or resolution. It represents, in this sense, the certainty of a prospective movement, the surety that justifies some actions by considering what these actions may give origin — a certainty firmly conditioned by what things will become, (see appendix 2).

In it, the past is expanded and turned to the present, while the future is contracted and points to itself, (Fig. 3.27).

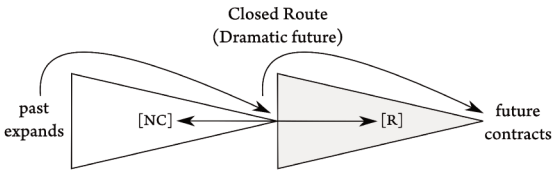


Figure 3.27: Rhythmic idea of *Closed Route*, [CRo]:
the past is expanded and the future is contracted temporally.

Most of all, this rhythmic idea implies the compositional projection of a unifying variational factor (or factors) that delineates a process of change, giving it a trajectory or a perspective, and stands as an influent factor in the creation of simple unfolding and developmental forms (which usually favour the manifestation or necessity of unifying rules of variation being applied).

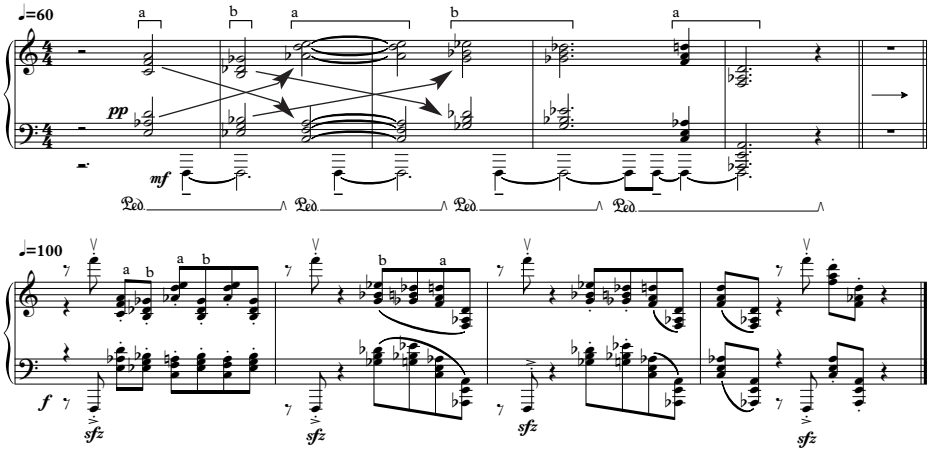


Figure 3.28: Compositional example based on the rhythmic idea of *Closed Route*.
It implies the projection of a rule of control of variation and the keeping of this rule.

In the example above, (Fig. 3.28), harmony alternates between two chords (a) and (b), both in terms sequence and inversions. This alternation guides two different sections in a composition. While at the surface these two sections are completely different in character and mood and impetus, they are integrated by a same inner order or rule of organisation. This operation is guided by the rhythmic idea of Closed Route, in the sense that different elements, and their potential versions or variations, are oriented and unified by a same compositional rule. However expanding temporally by means of harmonic differentiations, this example is still fundamentally dramatic and deterministic, because it keeps the delimitation or restriction of the harmonic organisation and progression, giving it a temporal perspective and projecting creatively on it a necessity of control and purpose.

In this same vein, this rhythmic idea grounds, for example, many a strongly goal-oriented compositional process, such as those commonly observed in the developmental sections of sonata forms. Musical development, in this sense, means to lead, to conduct, to orient

the thematic element through many instances of a musical narrative. Developmental sections vary considerably in length from piece to piece; and they may be more or less complex. Examples of short and long developmental sections in the context of sonata forms are, respectively, Mozart's *Eine Kleine Nachtmusik,* K 525/i (1787), and Beethoven's *Symphony No. 3 in E-flat major, Op. 55, Eroica,* (1804). Many things happen to thematic elements: transitions, bridges are built and destroyed, transformations, mutations are proposed and negated. All in all, there is a *sense of fate,* of control; and a sort of musical ethics seems to be granted to musical form: the theme, the thematic structure in itself, may be developed in many ways, one may add or extract materials, one may stretch or shrink the thematic conduct, clarify or obscure the trajectory of dissonance and consonance, etc.

Another example of this rhythmic idea is how the pitches forming a twelve-tone row are distributed among the voices, and a balance of principal and secondary elements in this context is achieved. Schoenberg's dodecaphonic music is, in this perspective, also sense-oriented by dramaticism. Its condensation of developmental and variational types of temporal structures, in which melody and harmony are interwoven, demonstrates — along with its many rotations, transpositions, overlaps — a clear necessity: the presentation of the series, either homophonic or contrapuntal, must manifest the control of a form of becoming, the control of a process of change. Thematic features are seen from multiple, subtle perspectives. That which is readily apparent is less the theme than its march, its many transformations.

See below, (Fig. 3.29), another example, yet in the context of microform, in which variation is unified by means of rules of pitch content rotation, by a rhythmic pedal and by means of rhythmic fragmentation.

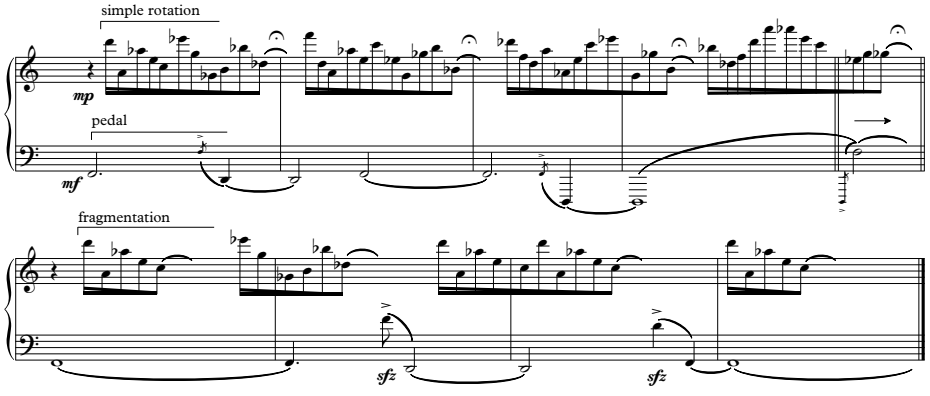


Figure 3.29: Compositional example based on the rhythmic idea of *Closed Route*.

This kind of mixed operation, composed by many organisational orders, is also oriented by the rhythmic idea of Closed Route; difference resting only on the fact that in this example, instead of one, several temporal perspectives contribute to forming a same developmental impetus. Rotations, pedal and fragmentation collaborate temporally, so to say, actually intensifying the 'closed route' effect.

The rhythmic idea of Open Refrain [ORe]
Characterization [C] <r> Non-routinization [NR]

This rhythmic idea, [ORe], results from the rhythmicalization of the senses of *characterisation* and non-*routinization.* It is directly related to traditional or innovative forms of *a*-thematicism in music. It is also related to the limitation, liquidation, disturbance, opposition, deconstruction or negation of thematic features and rules; and, indirectly, to any underlying compositional condition allowing or favouring musical a-thematicism. It implies a sense of *de*-identification, a reaction against identification, a sense that is only partially non-determinative, because it is overall projected as a way of problematising the generalising and reiterative influence that thematic features have, (see appendix 2).

This rhythmic idea renders a compositional notion that is antithetical to the rhythmic idea of Closed Refrain, of centripetal tendency, acting thus as a decentring power, as a force of annihilation, of anti-repetition. It represents a deconstructive force projected on thematic features. While the theme has an inside, a history which is concealed within itself, the rhythmic idea of Open Refrain has an outside, which is neither its skin nor its territory, but the process of operating a thematic *disappearance*, that has something to do with an impulse towards forgetfulness.

This rhythmic idea stands thus as a force of repetition that carries a diversifying soul. It grounds a sort of uncertainty of retroactive presence, which means the possibility of *not* having been or of not having happened, that is, the doubt, the uncertainty of the permanence of the past in the present. It is the 'uncertainty' of the thematic feature. This rhythmic idea is moved by a drive for originality, for dissociation. Dissociation because the present is then the expression of an undetermined past, which remains in the now but does not have any influence on it.

I suggest that, in general, past-bound rhythmic ideas, either dramatic or lyrical, follow similar processes, related to a centralising mental structure. But they are opposed in regard to their degree of determination. While the rhythmic idea of Closed Refrain repeats the permanence of a singular image, the rhythmic idea of Open Refrain repeats the aspects of change implied in the *arrangement* of images or sets of images*:* in the first case, there is no arrangement, but points and singularities; in the second case, instead, there are no singularities, but arrangements, principles. In it, the past is contracted and turned to itself, confirming itself, while the future is expanded and points to the present, (Fig. 3.30).

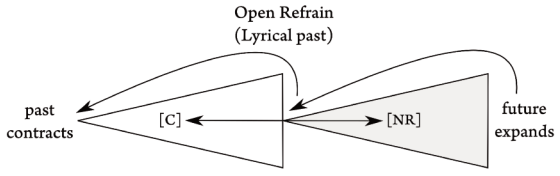


Figure 3.30: Rhythmic idea of *Open Refrain*, [ORe]:
the past is expanded and the future is contracted temporally.

Many compositional techniques may be used in order to approach these temporal notions. They are observed, for example, in compositional processes based on abstract textural shaping. Pointillistic pieces of music, such as Boulez's *Structures 1a* (1951), (Fig. 3.31), in which the dispersion of the sounds impedes the crystallization of thematic lines, are examples of its influence.

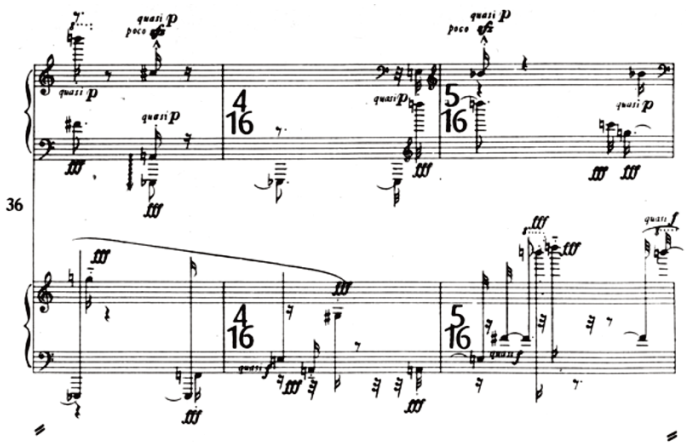


Figure 3.31: Boulez's *Structures 1a* (1951), excerpt.

It is also to be found in indeterminate pieces such as Earle Brown's *4 Systems* (1954), (Fig. 3.32), which avoids the thematic element by leaving open the interpretation of melodic and harmonic features.

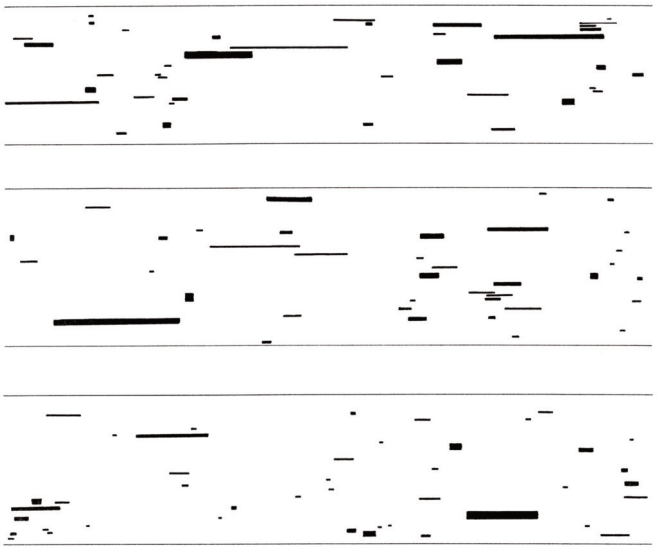


Figure 3.32: Brown's *4 Systems* (1954).

The rhythmic idea of Open Refrain thus implies the compositional projection of a diversifying factor (or factors) that defies or contributes to blur or attenuate the recognition of a given thematic feature. It also implies the avoidance of thematic formulae, or its tendency. This rhythmic idea stands as an influent factor in the creation of relatively complex thematic-variational and athematic forms (which usually favour the manifestation or necessity for changing compositional operations). An applied compositional example oriented by this rhythmic idea is demonstrated below, (Fig. 3.33):

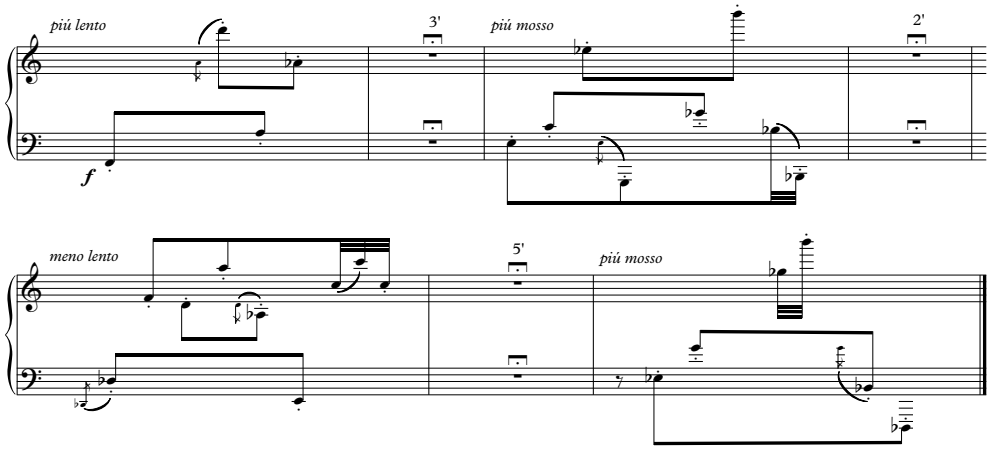


Figure 3.33: Compositional example based on the rhythmic idea of *Open Refrain*.

In the example above, no thematic formation or variation is actually proposed, but only a process of constant differentiation that gives the composition a general impression of vagueness, created, most of all, by a lack of identifiable designs. Each impulse is internally differentiated in terms of speed, quantity, rhythm and contour, while they are articulated one another by different intervals of time as well.

This operation is guided by the rhythmic idea of Open Refrain, in the sense that there is a clear questioning of identity and characterisation is weaken. However still contracting temporally, this contraction happens in a differentiative, negative way, by avoiding and questioning thematicism instead of promoting it. This example works, in this sense, within the scope of a lyrical a musical past, that contacts always around emerging new impressions, gestures, masks and affects.

The rhythmic idea of Open Route [ORo]
Non-characterization [NC] <r> Non-routinization [NR]

This rhythmic idea, [ORo], involves the rhythmicalization of the senses of *non-characterisation* and *non-routinization*. It provides a compositional notion which is antithetical to the rhythmic idea of Closed Route, as this projects a *sense of accommodation* by multiplication (as the multiplication of possible developments and variations generates a sensation of immobility), an impulse towards renouncement and abandonment, which is opposite to what seemed to be pretended, (see appendix 2).

This idea renders the conditions for a superior rhythmical elaboration, imbued with the expansion of variational rules and orientations, thus conditioning a sort of anti-developing musical composition. Its expands the notion of uncertainty so to represent an inevitable temporal expansion towards the present moment: a kind of uncertainty that concerns the possibility of what will not happen. That is why, in many senses, this rhythmic idea is also powered by *unambitiousness*. It deconcentrates musical future, makes it indeterminate, arresting its lines, its focal points, and privileging a sense of *totality*. It thus works as if

eternally expanding the present time to many possible futures, never crystallizing into just a single tendency. In this case, the future is something like a 'shadow without the object,' the residual effect of negating its determination.

Guided by this rhythmical idea, the compositional process will result in a multiplication of temporal images. These are simultaneously implicated and excluded, while projected on a completely dispersed and neutral 'rhizomatic panorama'[34] that presupposes a creative force Deleuze calls 'topographical': we cannot analyse its material and conceptual elements; we cannot cut off these elements from within; we cannot even measure them. It thus implies a sense of *trans*-transformation and can be related to non-linear processes of transition, both traditional or innovative, that a-thematic musical elements or rules undergo, as much as to the limitation, disturbance, deconstruction or negation of sequential, variational, unfolding and developing musical formulas.

In it, the past and future are expanded and turned to the present moment, (Fig. 3.34):

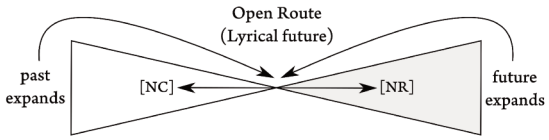


Figure 3.34: Rhythmic idea of *Open Route*, [ORo]: the past and and the future are temporally expanded.

There are many ways of compositionally addressing this idea. A basic approach would include: means (i) of approaching or creating a-thematic compositional techniques or rules in order to establish non-linear processes of transition; or (ii) of breaking, problematizing, or even blurring musical linearity.

These notions are implicit in Stockhausen's *moment forming*, which delivers, as he himself tells us, forms that

> are *immediately* intense and seek to maintain the level of continued 'main points,' which are constantly equally present, right up until they stop. In these forms a minimum or a maximum may be expected in every moment, and no developmental direction can be predicted with certainty from the present one; *they have always already commenced, and could continue forever*; in them either everything present counts, or nothing at all; and each and every Now is not unremittingly regarded as the mere consequence of the one which preceded it and as the upbeat to the coming one […] but rather as something personal, independent and centred, capable of existing on its own. They are forms in which an instant does not have to be

[34] According to Deleuze and Guattari, this panorama is a perfect model of our culture, since the rhizoma opposes the organisational structure in root-tree systems that charts causality along chronological lines and looks for the original source of things in the pinnacle or conclusion of those things. That is so because a rhizoma ceaselessly establishes connections between semiotic chains, organisations of power, and circumstances related to the arts, the sciences, and social struggles. Rather than making narratives out of history and culture, the rhizome presents them as a map or a wide array of attractions and influences with no specific origin or genesis, for a rhizome has no beginning or end; it is always in the middle, between things — inter-being, intermezzo. Deleuze and Guattari, *A Thousands Plateaus...*, 7, 25.

> just a bit of a temporal line, nor a moment just a particle of a measured duration, but rather in which concentration on the Now—on every Now—makes vertical slices, as it were, that cut through a horizontal temporal conception to a timelessness I call eternity.[35]

Another example is in Messiaen's uses of non-retrogradable (palindromic) rhythmic formulae, of a superposition of a rhythm upon its retrograde or his uses of superposed modes of limited transposition. As he says, about his *L'Ange aux Parfums* (1939), (Fig. 3.35), by superposing several layers, an image of eternity is created:

> Beside its curious mixture of timbres, it superposes different rhythms and modes, combining thus polymodality and polyrhythm. From the modal point of view: all the chords of the upper staff are written in the second mode of limited transpositions, all the chords of the middle staff are written in the third mode of limited transpositions. And the bass uses the whole-tone scale. There is then a superposition of three modes of limited transpositions. From the rhythmic point of view: the right hand repeats the rhythm, the left hand repeats the retrograde of this rhythm. […] There is, then, a superposition of a rhythm upon its retrograde, the combination taking place several times consecutively and occurring each time with the elements an eighth-note farther apart than the preceding time. As for the bass, it repeats a non-retrogradable rhythm, divisible in two groups, one of which is the retrograde of the other, with a central common value. There are three rhythms that are repeated indefatigably, in *ostinato*. This is the principle of the rhythmic pedal, and here we are in the presence of three superposed rhythmic pedals, the second being the retrograde of the first, the third being non-retrogradable.[36]

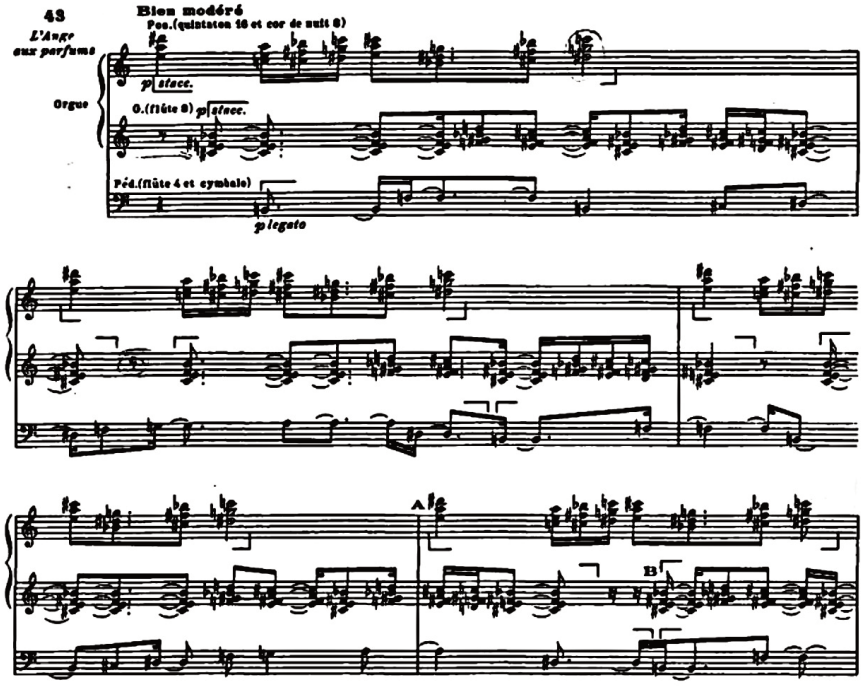


Figure 3.35: Messiaen's *L'Ange aux Parfums* (1939), excerpt.

[35] Karlheinz Stockhausen, "Momentform: Neue Beziehungen zwischen Aufführungsdauer, Werkdauer und Moment," in *Texte zur Musik*, vol. 1 (Cologne: DuMont Schauberg, 1963), 198-99.
[36] Olivier Messiaen, *Technique de mon langage musical*, vol. 1 (Paris: Alphonse Leduc, 1944), 23.

This rhythmic idea stands as an influent factor in the creation of complex forms of unfolding and development, and also of open forms, including those that make use of windows and collages (which usually avoid, or question the manifestation or necessity of clear unifying compositional strategies). An applied example of a composition oriented by this rhythmic idea is shown below, (Fig. 3.36), which implies the compositional projection of a diversifying factor (or factors) that defies, or contributes to blur or attenuate, a given rule of coherence, as much as is implied the avoidance of fixed, clear compositional strategies or tendencies to unify it.

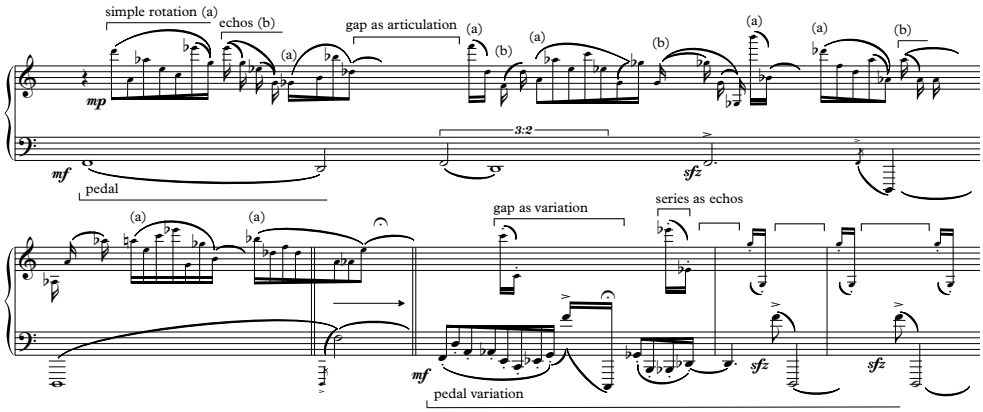


Figure 3.36: Compositional example based on the rhythmic idea of *Open Route*.

In the example above, the unifying variational procedure of pitch rotation is blurred by the interception of minute echoes. A little further, a pedal is questioned as well by the intermission of quite strong variations, while those echos which were initially negatively presented as a neutralising force are now transfigured and approached in a rather positive thematic way, and used as such. This operation is guided by the rhythmic idea of Open Route, in the sense that a questioning of well established routines and perspectives is constantly projected compositionally. However expanding temporally, this expansion is not dramatically motivated and necessary, but rather it works in the context of the freedom given by a lyrical musical future, devoid of purpose.

In any case, either temporally expansive or contractive, lyrical and dramatic musical times must be understood as part and parcel of a same temporal image or sense of continuity, as a duration. This understanding is illuminated, for example, by Giovanni Piana's concepts of totality, integrity and intertwining, who posits that our

> interior life is characterized by extreme mobility, though it is not an undetermined, chaotic mobility, but presupposes those orderings that are also apparent in the conflicting forms. The internal tensions grow and develop according to several *intertwinings* [my emphasis] until they reach paramount points after which only relaxing and lowering stages may happen, which, subsequently, prepare new conflicts and new resolutions. The double situation of tension-distension resurfaces successively in discourses on the subject of rhythm, and the rhythmical animation of musically organized sounds seems to pose a new. The sonic image of that rhythm that pervades subjective life itself. And considering that living experiences

> do not take place, in their temporal process, one after the other, instead, they are reciprocally integrated, being themselves formed by the subjective unity which is being created, a similar concept of totality seems to stand as a natural model of unity for the musical piece. All those processes of perceptive integration and of internal connexion between sounds that take place in listening should be, thus, understood as a true and proper revelation of the unitary cluster of living experiences inside a unitary cluster of sounds.[37]

Thus, we really may conceive a line of complexity linking lyrical and dramatic musical times. Clearly, the dramatic *is* the lyrical and vice versa in all cases; the difference being a distinct creative orientation, a distinct disposition sometimes turned towards the problem, the doubt, sometimes turned towards the solution, the search for certainty.

I have initially proposed that the musical compositional process is ignited (inspired), in the midst of the temporal foundation of our musicality, and follows a given temporal orientation. I also have proposed that this orientation is further actuated by the rhythmicalization (the rhythmical interplay) of the temporal influxes that constitute that foundation. On these bases, it is possible to suggest now that this rhythmicality potentially consolidates thereafter into some superior archetypical rhythmical senses — *rhythmic ideas* —, into 'secondary' and 'tertiary' temporal images that represent further creative moments in a musical compositional process.

III – OTHER TIMES

Musical temporalitites

Once inspired, installed and initially rhythmicalized on the temporal bases previously mentioned, it is my suggestion that the compositional process advances, so to say, by means of a second stage of temporal elaboration. It now receives a whole range of novelties — of new sensations and new questionings — from the influx of diverse, evanescent creative tendencies born in memory and imagination. In it, the musical idea is requalified and re-signified, and its grounding times supplied, with no ruptures, with new dramatic and lyrical compositional senses.

In a way akin to entering the Bergsonian temporal cone, I argue that a new rhythmicality, compositionally significative, may be contemplated. It is fully comprehended by the previous one, and formed by a number of emerging psychophysiological impulses I call *musical temporalities*.[38] This hypothesis concerns a further formalisation of the temporal complexity of the musical idea, which is now seen rhythmically redefined by one's sub-

[37] Giovanni Piana, *A Filosofia da Música*, trans. Antonio Angonese (Bauru: Edusc, 2001).

[38] Musical times and musical temporalities are qualitatively different. It is my suggest that while the former is ontological and involves the totality of one's temporal capacities, the latter is psychophysiological, and involves, in turn, more specific, specialized rhythmical capacities, the suggestion of diverse classes of rhythmical regularity and irregularity. Moreover, the domain of musical temporality is 'intermediate' in relation to the (compositional and representational) experience of musical time and the experience of the rhythmicality of musical piece's presentation.

jectivity only. It is psychological instead of ontological, a very particular class of rhythmicality that emerges exclusively under the influence of one's memory and imagination: in it, the musical idea is formally 'distributed' in diverse types of psychophysiological impulses responding to diverse levels of rhythmic regularity and irregularity. Here, I follow Bergson's arguments about the plasticity and temporal complexity of memory, which demonstrates that to assume time in us as being composed by many different levels of complexity is not only possible but necessary.

Bergson suggests that we are provided with *shallow* memories, which operate mechanically, almost automatically and straightforwardly, in response to determinate routine-impressions built under strong conditioning factors[39] (including here the genetic factor). In this, Bergson also supposes the existence of *deeper* memories, which, although still motivated by determinate habits and rationales, are less conditioned and relatively less mechanistic. Memories that answer creatively to the present situation in uncountable subtle, different, particular ways, in accordance with the actual necessity and with the degree of one's power of attention to life.

With this in mind, and guided as well by Deleuze,[40] on the notion that memory is unattainable without imagination, we may additionally reason about the existence of shallow and deeper forms of imagination, and that these forms operate in similar manners as those of memory. Deeper forms of imagination would thus convey diffuse amalgams of memories emerging from different moments of life. While shallow forms of imagination would do the same but in relation to sharp, functional memories that emerge viciously from habits and routines. We may suggest in this manner that deeper forms of imagination *dream*; that they are illogical and able to mix (infinite) disparate impressions. That they work openly, accepting all kinds of impossibilities. While shallow forms of imagination, on the other hand, look forward to the best link, the efficient solution. That they select and summarise.[41]

Our temporal experiences seem to be indeed constantly re-oriented by uncountable psychophysiological impulses that emerge sometimes close to motor centres, sometimes far from them, sometimes as emptied memories, limited to just a few impressions, sometimes as very constricted forms of imagination, apparently devoid of meaning, sometimes as more complete memories, composed creatively by virtually infinite possible links, yet sometimes as open forms of imagination, spread throughout the imaginable.

In all these cases diverse impulses are supposable. However the main issue here is less this diversity, the detailing of the temporal complexity of memory or imagination, than the investigation into how memory and imagination may actually compose the whole complex net of temporal interactions that forms the compositional process in music.

---

[39] Bergson, *Matter and Memory*, 31.

[40] Deleuze, *Difference and Repetition*, 91, 97, 169.

[41] Bergson, Matter and Memory, 21, 45, 180, 189.

Things now become more complicated, because shallow and deeper forms of memory and imagination, as proposed, must be contemplated therefore as impulses that actuate 'within' the fundamental rhythmical interplay of sensibility and understanding (in a secondary, intermediate rhythmicalization process). In order to be so, I argue, one must conceive that both shallow (on which now we may say as well *reactive*) and deeper (*reflexive*) memory and imagination types evolve temporally 'resonating', as it were, grounding, dramatic and lyrical past-bound rhythmic orientations (the rhythmic ideas of Closed and Open Refrain), and also, accordingly, grounding dramatic and lyrical future-bound rhythmic orientations (the rhythmic ideas of Closed and Open Route).

It is my suggest that all this amalgam of new impulses forms an intermediate temporal scenario, that rhythmicalizes the compositional process in many new, varied ways. To give just a plain example, one may think that by resonating the rhythmic idea of Closed Refrain [CRe], the temporality implied in the shallower memory type may emerge as a sort of mechanical musical dramaticism, that anchors the creative flux into a vicious, frozen thematicism, fully delimited, as it were, by a shell of causes. While, on the one hand, in a deeper compositional level, the blend of the creative forces of characterisation and routinization contracts musical time as a whole, giving it a strong thematic orientation, the shallow memory type now establishes the proper thematic routine, which can be neutral or light, or yet be so extreme that only the most centripetal image of repetition would remain: the regular pulsation.

In order to introduce the discussion about this sort of complex rhythmical images, I propose an applied terminology, (see Fig. 3.37, below). The *Shallow Memory* type of impulse, [SM], I call the impulse towards *symmetry* (a kind of memory which is mechanical, that is oriented to and by patterns and regularities, cycles and pulsation, by the least effort and best economy of resources, etc.); and the *Shallow Imagination* one, [SI], I call the impulse towards *asymmetry* (a kind of imagination that looks forward to the transformation, the mutation, the break of codes and habitus, that accepts accidents and mistakes, irregularities and gaps, that is adventurous and demands energy, etc.).

At this level, everything seems to be a matter of *'keeping it* the same, cyclically, as much as possible' or '*deviating it* from itself, in order to regain life, and so keeping itself alive.' At this level, everything seems to be related to the body, the gesture, the feeling, the function, the organs, ecologies and survival. At this level, the importance of everything's happening seems to be restricted by the *momentum* of the experience, as experiences happen, here and now (accordingly, as microforms and micro-movements).

Likewise, the *Deep Memory* type of impulse, [DM], I call the impulse towards *balance*. This is a kind of memory that although also seeking for patterns and regularities does not do that organically, that is, as an 'organ' would do — because an organ is implicated in its own roles and functions, in a particular performance, as the rhythmical patterns performed by the heart or the lungs —, but as something that operates in between, 'inter-

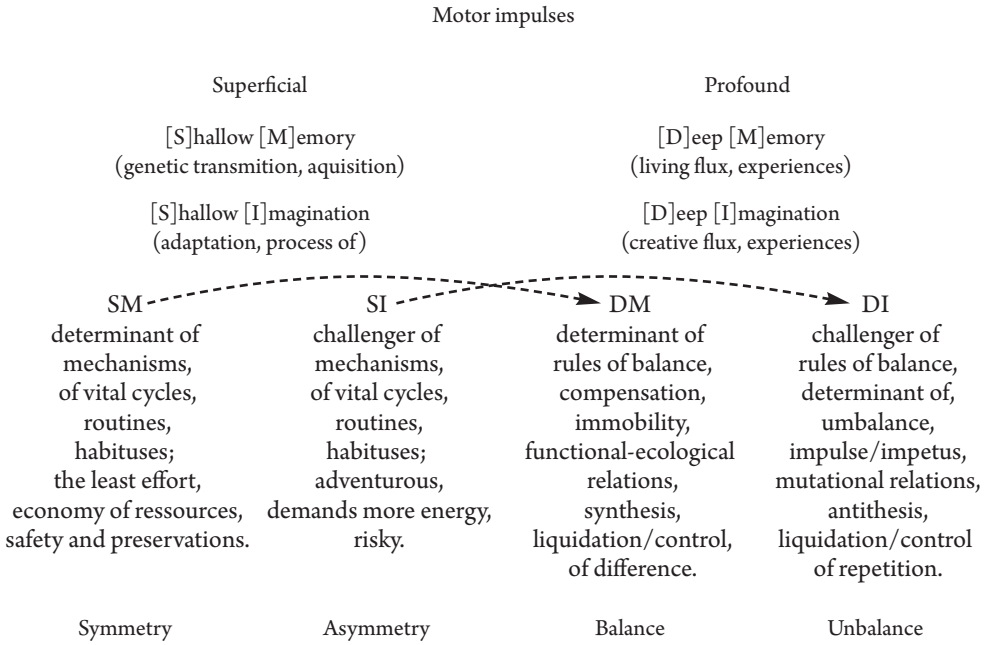


Figure 3.37: The compositional act is directly influenced by two qualities of memory and imagination, grounded on shallow and deep motor impulses. A *shallow memory* quality is oriented to and by mechanical routines, vital cycles, determinations, and economy of resources; while a *shallow imagination* quality is related to adaptative processes, and challenges mechanisation, is adventurous and risky. *A deep memory* quality is oriented to and by diversified routines, mechanical or not, by the complex, diversified temporal flux of daily living experiences, promoting syntheses and balance; while a *deep imagination* quality acts creatively on this same flux, challenging its balance, allowing the emergence and assimilation of novelties and the control of repetition.

organs,' making inferences about the balance and harmony of distinct images, about their cooperation and collaboration and, from that, building and favouring a virtual rhythmical horizon or line of reference — which is not at all absolute, but is stable — to which all cases, similar or not, are submitted; a kind of memory that favours balance over difference, etc. And the *Deep Imagination* one, [DI], I call impulse towards *unbalance.*[42] I argue that this imagination type favours unbalance or the least balance. It problematizes balance, makes unstable the points of reference and creates new ones as it creates new organs, new functionalities, new solutions. (See Fig. 3.37, above). Thus briefly: we have dramatic or lyrical, reiterative or differentiative musical times resonating and being resonated simultaneously by symmetric, asymmetric, balanced and unbalanced musical temporalities, in a complex rhythmical model, (see Fig. 3.38, below).

We have seen that Schoenberg makes it clear that, for him, musical composition is directly related to a sort of fluid musical space that is constantly redefined during musical experience, in response to each one's capacity or power of conservation, that is, to memory. In

[42] *Symmetry*, *asymmetry*, *balance* and *unbalance* are psycho-physiological impulses, intermediate, inherent rhythmical attributes of the musical idea's temporal complexity. It is thus assumed that they may represent — or, better, 'promote,' as impulses — diverse levels of rhythmic and formal regularity/irregularity.

shallow memory impulse	*Symmetry*	repetition and regularity
deeper memory impulse	*Balance*	stability, articulation
shallow imagination impulse	*Asymmetry*	difference and irregularity
deeper imagination impulse	*Unbalance*	instability, flux

Figure 3.38: The rhythmical functionality of shallow and deep memory and imagination types.

his view, musical composition constantly (re)-organises the complexity of memory — the musical space — by means of different types of musical presentations. It is important as well to notice that for Schoenberg primitive musical forms, in his terms, are directly related to primitive (and now we could say shallow, reactive) forms of memory, in which the musical idea is usually 'slowly' presented (in this case, in regard to something's potential changeability, everything has to remain the same in order to make sense), producing, or better, demanding quite direct, local and immediate temporal relations. Following this argument, for Schoenberg, artful musical forms are such because they address likewise artful, reflexive and more profound forms of memory that are called by means of 'faster' forms of presentation of the musical idea (in this case, in order to make sense, all potential symmetries considered, everything has to be balanced), which consequently requires distant and mediate temporal relations.

By the same token, Stockhausen, whose compositional practice is, clearly, more related to the creative role of imagination than to that of memory, informs an alternative understanding of musical composition. There is indeed a great difference between the serialism seen in Schoenberg's and in Stockhausen's works. On the one hand, for example, Schoenberg usually approaches the series in a thematic way, working it prevalently in the perspective of memory (which stands to the series, in his view, as a power of conservation — a coherent, *fixed* musical realm — that makes it possible a continuous temporal *emergence* of deep, and mediate, artful musical forms). For Stockhausen, in turn, the serial work is preponderantly treated in the perspective of imagination, which happens within a non-coherent and mobile musical realm — a power of multiplication — that enables a deepening into the temporality of music by means of manifold projections of superficial musical matters.

So for Schoenberg, it seems, what matters is to work oriented by the depth of memory, while for Stockhausen it may be argued that what matters is to work motivated by the depth of imagination. However, in any case, the temporal substance the Schoenbergian musical memory seeks for the emergence is the same temporal substance the Stockhausean musical imagination seeks for the deepening: the musical idea. This, we now may assume, is to be observed either from the point of view of thinking, reasoning, understanding (in which we find a Schoenbergian-fixed musical space of conservation, of repetition) or from the point of view of perceiving, sensing (in which we find a Stockhausean-mobile musical space of multiplication, of difference).

I argue that these two perspectives are mutually complementary. They inform a transient, intermediary compositional function which, following on from the fundamental temporal work of sensibility and understanding; evidence distinct levels of functional response or response time over the many senses initially provided by primary rhythmic ideas.

Here, agreeing with Schoenberg, and adding insights from Kramer's and Barry's approaches to musical time based on information theory previously discussed, I argue that a primitive, shallow memory type requires a slower presentation, in Schoenberg's view, not because in its primitiveness it is lagging, but because its scope is actually *short* and, being so, strongly driven by articulation and regularity. The primitive memory must redo itself more constantly to make sense. It depends on a greater number of actualisations of the same causal factor (and the more regular this actualisation, the better). Likewise, an 'artful memory', again, following Schoenberg's words, will require a faster presentation not because it rushes over itself, but because it is *long* in scope, and as such regulatory and driven by continuity and by complex meaning. It may prolong itself over a greater number of singular processes, looking forward to make sense.

I add to these notions that we are provided as well with primitive and artful imagination types. In this, either short or long, imagination is always problematic and deregulatory. It reshapes the image and its repetition, thus also making problematic its balance.

One must conceive that the temporal quality and scope of distinct musical temporalities is thus determined by the quality levels of their functional response. In this, I also follow Bergson, who says that different memory- and imagination-types of impulses are oriented by more or less deep embodiments: the more embodied and shallower an impulse, the more it consists of a strong and straightforward reactive process directed towards working out a given stimulus; and the less embodied and deeper the impulse, the more it embraces an active process oriented to problematizing a given stimulus.[43]

Musical temporalizations

In order to briefly introduce a few aspects on the compositional domain of musical temporalizations, it is my suggest that the lyricalness and dramaticism of the compositional process as a whole are both regarded in their most direct and immediate rhythmical influence on the presentation of the musical idea. It is thus that, having in mind the previous domains — those of musical times and of temporalities —, I suggest this further one, in which the emerging rhythmicalized musical idea intercepts what is commonly understood as the métier of composing, namely, the commonality of musical techniques and the language often used to name them.

Temporalizations may be split into two general classes: systemic and metric.

[43] Bergson, *Matter and Memory*, 130-133.

SYSTEMIC TEMPORALIZATIONS may be seen as rhythmical operations that account for the *consolidation* of *musical meaning*, which may be understood in the perspective of the present discussion as something completely delimited by a given rhythmicality, and does not unfold in any construct other than that which is conveyed by the particular 'sense of rhythm' put into form and act as a response to very specific rhythmic operations. Of course, each one of the many compositional images previously suggested — such as the archetypical (ontological, so to speak) temporal images of characterisation, non-characterisation, routinisation and non-routinisation; or those, in a sense correlated, psychophysiological rhythmical impulses, gestated in memory and imagination, towards symmetry, asymmetry, balance and unbalance — informs a very specific sense of rhythm, thus carrying a specific musical meaning; like the rhythmical idea of Closed Refrain, [CRe], for instance, whose musical meaning is precisely conveyed by the consolidation of musical thematicism.

The rhythmical play of memory and imagination suggested above — which becomes increasingly necessary and important compositionally, as the compositional process advances and merges musical times and musical temporalities — implies virtually infinite 'deepenings' (that is, of memory) and 'densifications' (the way imagination is fostered) of a given musical idea's temporal complexity.

Deepening temporally a musical idea, I suggest, amounts to conceiving of its temporal complexity in terms of *layers of musical meaning*, which thus conceived, like layers, may be more or less superficial. These layers reflect the amplitude of memory and consequently the temporal depth of a composition. In this particular sense, musical meaning may be seen as informed by the degree of deepness conveyed by distinct *temporal structures* (like the structures of points, figures, groups or masses, as they are discussed by Stockhausen), *temporal structural relationships* (like the diverse qualities of permutational and transpositional relationships that may be compositionaly projected on those structures) and *temporal structuring processes* (like the ordinary processes of variation and development, among others, that usually orient the general compositional arc of a musical work, its macro and micro forms), as I call them. That is, the meaning of music reflects, on the one hand, its temporal structural complexity.

Now, to condense a musical idea temporally implies conceiving of its temporal complexity, conversely, in terms of *zones of projection of musical meaning*.[44] These projections may be seen as reflecting the imaginative amplitude and specific qualities of the creative field to which memory is subjected. In this precise sense, I suggest that musical meaning is also informed, on the other hand, by the degree of temporal density given by distinct *levels of*

[44] Layers and zones of projection of musical meaning are tied up in several ways and the formal classification presented here is only introductory. There would be certainly much more to say about the distribution of musical meaning in memory and imagination than may be addressed in this simple scheme.

textural amplitude/design, of performance-determinability (or performing control), and of *frequency ranges*.

METRIC TEMPORALIZATIONS, on the other hand, may be seen as rhythmical operations exclusively related to the *general organisation of musical accentuation*, here assumed, accordingly, in its relation with two distinct senses, 'extensively' — in which distinct accents, following sequentially one another, form and inform orderly, chronological intervals of time, pieces of duration; and 'intensively' — in which distinct accents 'accumulate,' and thus form common, though heterogeneous and multiple, fields of rhythmical significance. Musical presentation would be thus composed of many a rhythmical image that integrate temporally, always answering to the quality and kind of rhythmical tension that is creatively established between lyricalness and dramaticism during the compositional act.

Metric temporalizations are in a sense more superficial rhythmical operations that reflect, intensify or attenuate, a musical idea's fundamental lyricalness and dramaticism, forming a two-dimensional melodic-harmonic complex image of musical accentuation. This notion implies lastly that musical meter has always two sides or orientations, a chronological, *horizontal* orientation, and an *ordinate*, vertical orientation, each one in line, respectively, with the melodic and harmonic dimensions of musical presentation.

This last assumption is held by Stockhausen's on how time is organised within a piece of music, in answer to our perceptive capacities, as previously discussed. These ideas lead me to suggest a rationalisation of musical metrics that accounts specially for the possibility of conceiving of it in relation to diverse spectral zones of temporal complexity. Following this reasoning, it may be argued that frequencies usually perceived as meter and rhythm and those usually perceived as pitch and timbre are not only structurally but also metrically related. They may be creatively and compositionally integrated, participating of a same temporal continuum: independently of its complexity and spectra, a whole set of resonant rhythmic proportions may ideally emerge as it were from any given concrete, sonorous rhythmic pattern, *and vice versa*; that is, that concrete, sonorous rhythmic designs may emerge as if resonating the whole set of rhythmic proportions that quotidianly reach our perception (which can be sometimes purely conceptual, or summed from many different memories of diverse moments of our life).

We may once again return to those empirically-transcendental notions of time, elaborated mainly by Bergson and Deleuze, as previously discussed, and propose, following them, that there is thus a distinction we must make, a very important one, between the perception of musical surface, of a sonic phenomenon, and the *perception of musical composition*, which is always and necessarily ideal.

We cannot conceive of music as only an amalgamate of sounds and sound shapes. When listening to music, we are affected above all, beyond sounds, by temporal complexities. Even in chaotic musical formations we detect a 'chaotic musical time'. Because musical matter imprints us with an *echo effect* we must always account for. An echo directly related

to a temporal linkage with the *when*, the *how* and the *why* we are: the echo echoing ourselves; the composition being *there*, during this echo. For this reason, it very is important to understand that the structure of accentuation responsible for a given metric system we perceive at the surface of mus*ic must always be raised*, so to say, to the compositional domain.

All this considered, it seems that it will be possible to elaborate new metric distinctions, distinct at least from the ordinary notion of musical accentuation, which is usually restricted to the melodic perceptual domain (the chronological one). Yet, as I see them, these new metric distinctions must be intimately allied to a broad understanding of musical interpretation and expression, because these notions are deeply implicated in the formative process of the presentation of the idea.

The grounds for this broad understanding is the notion that the *interpretive contraction* and the *expressive expansion* of musical form and time are in practice inseverable component parts of the same creative process. A process made up by a continuity of complexities, both heterogeneous and multiple — to say it with Bergson and Deleuze — in which harmonic and melodic features are constantly juxtaposed. Only in this way it will be possible to deepen the notion, here briefly suggested, that a musical composition actually represents a continuous folding of the harmonic over the melodic spectrum and vice versa.

This continuous folding is also discussed by Deleuze and Guattari with reference to a creative *diagonal*. As Edward Campbell indicates, "in *A Thousand Plateaus*, Deleuze and Guattari, drawing on Boulez, conceptualise the role of every great composer in terms of the invention of a diagonal, a 'transversal line', a deterritorialization. In this respect, the Viennese school (presumably the second) is cited as exemplifying this kind of diagonal move which produces 'a new system of territorialization'."[45] On this, we read directly from Deleuze and Guattari that,

> When Boulez casts himself in the role of historian of music, he does so in order to show how a great musician, in a very different manner in each case, invents a kind of *diagonal running between the harmonic vertical and the melodic horizon*. [my stress] And in each case it is a different diagonal, a different technique, a creation. Moving along this transversal line, which is really a line of deterritorialization, there is a sound block that no longer has a point of origin, since it is always and already in the middle of the line; and no longer has horizontal and vertical coordinates, since it creates its own coordinates; and no longer forms a localizable connection from one point to another, since it is in "nonpulsed time": a deterritorialized rhythmic block that has abandoned points, coordinates, and measure, like a drunken boat that melds with the line or draws a plane of consistency. Speeds and slownesses inject themselves into musical form, sometimes impelling it to proliferation, linear microproliferations, and sometimes to extinction, sonorous abolition, involution, or both at once.[46]

[45] Edward Campbell, "Rethinking Boulez Schemes: logics and paradigms of musical modernity," in Erling E. Guldbrandsen and Julian Johnson (ed.), *Transformations of Musical Modernism* (Cambridge: Cambridge University Press, 2015), 183.
[46] Deleuze and Guattari, *A Thousand Plateaus…*, 296.

It was this that Ernst Kurth also indicated in his theory of the simultaneous complementarity and opposition between harmony and melody. Kurth conceived of harmony and melody as dynamic forces of cohesion but also of *dissipation*. He pleads that

> if, according to [Carl] Stumpf's[47] formulation of the 'fusion phenomenon,' the vertically oriented cohesion effect constitutes that relationship of (simultaneous) sensory contents (individual tones) 'whereby they form a whole rather than a sum,' then with regard to the other of the two structural forces — the basic process upon which horizontal, melodic hearing depends — the effect of kinetic energy can be characterised similarly as that relationship of individual tones where (in succession) they form a whole rather than a sum, the continuum of the line that arises from the melodic energy flowing over the individual tones. […] Each force strives in its own way to bring the individual tone under its influence, chordally or linearly. In musical activity the individual tone means nothing, its context everything; the individual tone unto itself escapes conscious awareness, which summarises larger complexes. A perception of individual tone contradicts the essence of music; music always signify activity, dynamism, while the awareness of the individual tone is, in itself, still merely acoustic-psychological hearing. The compositional treatment of musical materials, as well as its technique, is based on the dual tendency of these two fundamental forces, on the competition to absorb the individual tone into their sphere of influence, and on the fluctuating equilibrium between the two sensations of force. An oppositional tendency thus characterises the technical features of a linear contrapuntal design and, on the other hand, of harmonic design. Their difference is profound; it extends to the very roots of compositional technique, which, in the harmonic view begins with the chord, and in the linear view with the line as the unit and origin.[48]

Kurth's understanding of the complementary opposition between harmony and melody can be enriched by the concept of intertwinement of the harmonic with the melodic spectrum. Harmony and melody are mutually implicated both in their duration and rhythm. They have in their centre, we have seen, a common universe of frequencies, whose sides are, respectively, the dimensional (harmonic) and motional (melodic) qualities of the musical structures that co-exist in it.[49] This universe of frequencies extends from about 30 to 5000 Hz, comprehending the perceptual tonal range, where the unfolding of harmonic and melodic formal, temporal proportions in general takes places.

This last notion suggests a central difference between a tonal perception (a perception oriented to the presentation of the idea) and the compositional perception mentioned before. Plain tones are *immediate* musical percepts: they stand 'transparently', as diagrams, as Bergson would put it, at the core of any musical composition, and representing first of all its presentation. Ultimately, however, they reflect only themselves and not (yet) the

---

47 Carl Stumpf, *Tonpsyshologie*, 2 vol (Leipzig: Hirel, 1890).

48 Kurth, *Selected Writings*, 43.

49 On this I also recommend the first chapter of Joe Hughes's *Deleuze's Difference and Repetition…* , p. 96 onwards, which is organized around the quote: "First of all I want to ask: what is the characteristic or distinctive trait of a thing in general? Such a trait is twofold: the quality or qualities that it possesses, the extension that it occupies. […] In a word, each thing is at the *intersection* [my stress] of a twofold synthesis: a synthesis of [i] qualification or specification, and of [ii] partition, composition, or organization."

complex formal, temporal proportionality projected on them by musical composition as a whole. Every proportional relation existent between musical facts (and in particular between the domains of harmony and melody), on the other hand, need to be structurally amplified (by memory and imagination, in their way of organising the work or sensibility and understanding), that is, they have to be 'creatively folded' *within* a given perceptual tonal range, in order to be cognisable and aesthetically manageable; they do not reflect tones but musical ideas and their rhythmicality.

This compositional folding has two sides: an *expressive* side, whose main objective is to drive into the realm of harmony and melody all those frequencies that escape, either centrifugally or centripetally, the immediate transparency of isolated tones, forming and structuring them temporally, in depth; and an *interpretative* side, whose main objective is to create applied techniques of musical presentation that allow for musical expression to be accessible by our understanding, techniques which are thus related to the degree of veiling, of concealment of the musical idea, during its presentation.

This notion suggests that everything in music results from the juxtaposition of virtually infinite 'supra- and infra' rhythmical designs/frequencies mediated by sounds — the difference between supra and infra rhythmical designs being only their relative difference of speed; and the distinction between harmony and melody, in compositional terms, being only that the treatment of harmony implies transplanting rhythmic designs/frequencies that are usually extensive (melodic) to an intensive spectrum, and vice-versa.

Conclusion

The alternative musical idea

The experience of music would be rather difficult, even impossible, if we dispensed with the differential power of the idea that exists outside the concept. It would be so because this experience demands a constant creation of 'intermediate zones of meaning,' zones which are still not clearly and objectively crystalised, which are eternally emerging and mixing and vanishing, like vapours amidst the haze. I have endeavoured in this dissertation to provide a way of investigating some of these intermediate zones — by suggesting classes of musical times, of temporalities, of temporalizations, of musical representations — taking as my starting point a necessary critical evaluation of the Schoenbergian concerns about the nature of the musical idea and the problems of its presentation.

Music is eternally changing, in itself and in us. In essence, I argued in this thesis — informed mainly by the philosophies of Bergson and Deleuze and also in many ways by the compositional practices and thought of Stockhausen — that our finest musical experiences do not engender only the sentiment of certainty Schoenberg seems to be committed to when he declares that "composing is thinking in tones and rhythms" and thus "subject to the laws and conditions of all other thinking;" the same feeling that, as a rule, would lead us unavoidably to final, logical conclusions about music and its artistic value. Rather, any higher musical experiences seem to happen in a context of 'alternative Deleuzian difference' — as doubt and surprise, as if they were contaminated, so to say, by a sentiment of dynamism and evolution, by a profound creative flux. Moreover, such musical experiences provide us with the amazement of a first encounter, and not only in regard to the new music of our time, for it suffices that the interpretation, the analysis, the critique, etc., of any piece of music or musical aspect, be *in difference*.

Regardless of that, if the sentiment of certainty somehow arises from a given musical context, it does so momentarily and functionally only, as if it were merely for the renewal of the possibility of doubt: many a tonal musical piece, for instance, is formed by superficial rests, marks, points of reference, all sorts of fleeting attachments, installed on its deep motional substance.

All in all, these assumptions naturally led to the discussion of the Schoenbergian notion of musical idea, which is, to say it with Deleuze, a concept-genus musical notion permeated, as it is, by the principle of identity. Mostly from Schoenberg himself, and from many sources, we have learnt that Schoenberg's musical idea favours a principle of coherence,

which works both as the virtual basis for a process of musical composition and as the foundation of the technique of presentation of the musical piece resulting from that process: however eventually comprising many sorts of sub-routines, distinct sections, ruptures and oppositions, for Schoenberg a musical piece must be ultimately well-balanced and form a whole, a noticeable unity.

On this basis, and following both Bergson, and Deleuze's and Bachelard's accounts of Bergsonism, I have extensively argued that there must be 'another kind of musical idea,' necessary and essential to music, ruled as well by non-coherence and temporal transgression. I have suggested moreover that music, any music, is unavoidably composed of both kinds of musical ideas, with no primacy of coherent or non-coherent creative musical powers.

I sought to demonstrate critically a manner of discussing how these two kinds of musical ideas interact and produce, reaching a broad panorama of a fundamental question, that is, of how coherence and non-coherence emerge as distinct by complementary musical powers. This perspective was substantially supported by Bergson's philosophy, which advocates the infinity and profound heterogeneity of time; that ideas are truly complex temporal entities, which may evolve positively, freely and creatively as everything in nature does, though also may be *captive* of conception-forming processes and preconceptions.

For Bergson, and also for Deleuze, our ideas are essentially free, provided that their *sense-freedom* is creative and expressive; for both, freedom is in itself creative expression. In this, order and disorder are equivalent creative products. Indeed, coherence and identity are necessary ordering factors in a world of infinite change that constantly defies the defined thing. But non-coherence and non-identity are all the same necessary in a world dominated by rules of conduct and by fate. In this way, we are free to apply a determinate order to things, to define a field or plan of actions, to circumscribe a determinate problem; but only on condition that such determinations radiate, expressively and *transversely*, alternative orderings, fields, and problems. This is in a sense conveyed by Deleuze when discussing a "diagonal running between the harmonic vertical and the melodic horizon."[1] In each of these cases,

> a different diagonal, a different technique, a creation […] a 'nonpulsed time': a deterritorialized rhythmic block that has abandoned points, coordinates, and measure, like a drunken boat that melds with the line or draws a plane of consistency. [In which] Speeds and slownesses inject themselves into musical form, sometimes impelling it to proliferation, linear microproliferations, and sometimes to extinction, sonorous abolition, involution, or both at once. The musician is in the best position to say: 'I hate the faculty of memory, I hate memories.' And that is because he or she affirms the power of becoming.[2]

[1] Deleuze and Guattari, *A Thousand Plateaus...*, 296.
[2] Deleuze and Guattari, *idem*, *ibidem*.

Art, music, like everything, depend on this symbiotic temporal relationship; moreover, they *demonstrate* this relationship.

The whole discussion here presented was thus guided by the emerging dialectical dynamism of two fundamental musical senses, lyricalness and dramaticism, that are juxtaposed and linked in many complex ways, to compose a single interdependent rhythmic system by means of many a creative temporal process, by many *rhythmicalizations*. To be clear, the principle of coherence is not enough, in itself, as a ground for aesthetic investigation in music. It seems to be a mistake to say that some pieces of music are better accomplished just because they are, or appear to be, more coherently shaped than others.

The coherence-balance musical aesthetical stand

It did not seem pertinent to restrict the concept of musical idea to the standpoint of time as regularity, of a time that is stretched spatially and is cyclically structured. I argued that this is so because musical time is also in itself a differential substance heterogeneously made up by irregularities no less than by regularities. All the same, it did not appear up to the point curtailing the elaboration of a given musical idea by considering music only from the viewpoint of order and proportion and, consequently, of music conformation to norms of balance, conjunction, and complementarity, of consonance of any kind. This is because music, I think, is also a differential substance, notoriously composed of imbalances, and obviously by dissonances.

Regularity and balance are significative temporal and musical principles, but only when seen from the antagonistic perspective of partial or complete irregularity and randomness. Of course, there is music that is cyclically organised, as much as there is time that is proportionally ordered, but these sorts of things do not implicate regularity and balance as normative either for time in music, or for music in time. Regularity and balance are not indisputable characteristics of any given musical idea, but rather aesthetic positions chosen with precision from an ample spectrum of possibilities of representation. Regularity and balance have been related here aesthetically to the degree of communicability and comprehensibility of a musical idea. In other words, they were vindicated as temporal principles oriented, in general, to the interpretability of a musical idea, to that that I have called *musical dramaticism*, a term that stems from Stockhausen's reasoning, when he discusses, about his *Kreuzspiel* (1951), the profound dramatic aspect of the musical form when this is causally governed and teleologically planned towards a point of conclusion. I discussed the interpretative power of musical dramaticism and, more precisely, the interpretative power of any sort of temporal contraction, articulation, repetition, determinability, etc., suggesting, in the same vein of thought, that the power of musical interpretation demands, of necessity, the complementary or creative antagonism of ex-

pressive musical powers, of musical lyricalness — which is also, I insist, an aesthetic position, one that favours non-determination, irregularity and unbalance.

For Schoenberg, the musical presentation of the idea is in constant need to search for a right balance to instability, to *restore* in a logical, systematic manner what was inescapably installed in the idea already at its genesis. One is tempted to think, following his claim, that temporal balance should be conceived as 'perfection' — or perhaps as the perfect source of music — in which regard any given musical idea somehow falls short, and to which a musical idea always must yield, in order to return to its primitive state: it should return to balance simply because it was somehow previously disrupted.

In this dissertation, however, I systematically aimed at contemplating the problem of restoring the balance in music from a contrasting vantage point. I looked precisely into temporal perfection in a Bergsonian-Deleuzian way as complexity and deepness of meaning(s). Thus, the temporal complexity of a given musical idea may eventually perfectly mirror the temporal complexity of the world.

I have delved into this question in a gradual manner, steadily, in order to verify the dialectics of determination and of non-determination, of repetition and difference, and so on, as fundamental compositional principles. Henceforth, I suggested that the rhythmicality of the musical idea would be granted exactly by the creation of regions of greater and lesser determination, of greater and lesser balance and stability. In the end, it would be justly the rhythmical mobility, with no privilege to temporal balance or unbalance, to confer upon the idea its musicality.

That time as complexity, instead of as balance, could be of choice to represent temporal perfection in musical terms, is a proposition grounded on a crucial and unexpected change with regard to the usual interpretation of Schoenberg's thoughts about composition. Musing over the problem raised by Schoenberg about the nature of the musical idea, it soon becomes evident that the word *restoration* would be in any case improper, specially in the sense that he sometimes gives to it, of restoring the balance to the musical idea, or of being the idea itself a process of restoration of balance. Because Schoenberg does not in fact consider that balance is the cause of the idea, nor that the restoration of it (by the presentation of the idea) is justified by its primitivity. Assuming thus the primary and proper sense of musical idea given by Schoenberg — that of an 'ideal' which becomes temporally specified in its material, sonic presentation —, a given musical presentation never restores, as a matter of fact, the musical idea it is related to. Instead, it *infuses* this idea compositionally with the notion of temporal balance, as much as (in my point of view) with that of temporal imbalance — because this ideal is always temporally mediated between the extremes. Then again, it is even possible to ascertain that for Schoenberg the notion of musical idea is indeed that of something temporally complex (although not

complex in the sense of a deviation from nature's integrity), because it reflects, at some perceptual and intellectual level, the complexity of nature itself. One just has to recall, for instance, his considerations, in the *Theory of Harmony*, about the discovery and assimilation of dissonance throughout the history of music. Of course, there are in Nature innumerous elements and forces of balance or rest as of disturbance. Temporal balance and imbalance (as much as consonance and dissonance, etc.) may be seen after all, even in Schoenberg's compositional thought, not as absolute notions coexisting externally to a given musical idea, but as relative and changeable notions that are compositionally infused into the idea, in order to manifest a given musical representation of reality.

Therefore, 'to restore', as used by Schoenberg and others, may signify more than restoring a disrupted balance. It may have the sense of working out, consciously and systematically, both the balance and the unbalance that are needed to inspire the musical idea, respectively, with *interpretative areas*, that are fields of coherence and comprehensibility, and with *expressive areas* of non-coherence and apparent incomprehensibility (because they are original, problematic, arousing, etc.).

All in all, Schoenberg's apparent partiality towards balance has opened the path for this thesis. Although it is evident that for him temporal balance is a factor of comprehension and coherence that concentrates the musical idea around certain logical lines of thought, it was possible to develop from this notion a dialectical approach that considers, in essence and fully, the musical idea's temporal complexity, and the possibility of creating, on this complex basis, countless relations of meaning that deal with the world's complexity.

The Rhythmic Idea

It remains to be said that Schoenberg's approach to the problem of musical idea in his writings is circumscribed by the nature of its presentation. For him, a musical idea and its presentation are in many senses inseverable, as he presumes the idea to represent a creative foundation for its own presentation, at the same time that the presentation itself bestows on the idea its form and character. Here I argued that this approach is the main reason for Schoenberg to consider the musical idea necessarily as a form of musical thought and, in consequence, to correlate musical thought and other forms of thought; the crucial point being that, for him, presentation must comply with idea, as it works towards a greater comprehensibility of the idea by unveiling it, step by step, in a logical and coherent manner. But since in his approach idea and presentation are formally confused, the principle of coherence in the presentation of the idea is eventually transferred (conceptually and retroactively) to the idea itself, which thus becomes inevitably and viciously reoriented in a way that its own cohesive power, regularity, and balance end up prevailing over heterogeneity and difference. Essentially, musical thought for Schoenberg depends

on this: the regulatory influence of the interpretative power of the presentation of the idea over the expressive power of the idea.

The Schoenbergian notion of musical thought was here thus critically dealt with by considering the problem of musical idea from a strictly temporal standpoint, without taking into account its final form of presentation. In order to do so, I referred to the principle that any idea is related to things as a fixed image and, simultaneously, as a moving image. The relation is a temporal flux, that is, a flow of relations, more or less fixed or mobile. Moreover, illuminated by Bergson's thought, I have argued that this flux is a vital one. It is constantly renewed by one's subjectivity, without ruptures, answering to the continuity and integrity of one's inner self that spans throughout the powers of sensibility and understanding, and, as a result, of representation. In this sense, the musical idea, as I see it, is not confused with its presentation but with the time of its experience, as idea. Thence the Augustinian notion of *distentio animi* was relevant. For Augustine, time is experience, and the experience of time itself is an eternal present that stretches formally, as expectation and memory, towards a possible or impossible future as well as towards a possible or impossible past: for the experience of the musical idea happens, I have argued, *by means* of the piece of music, which stretches formally this experience towards possible and impossible musical pasts and futures, and even towards their negation.

There is thus a difference between the Schoenbergian notion of musical idea and that that I presented here. As I said, Schoenberg understood the musical idea as a form of musical thought, implying that it is necessarily ruled by principles of logic and coherence, and that it is, consequently, essentially articulative and spatial in nature, as any form of thinking is. In turn, what I have presented here, developed the notion of musical idea in the perspective of its own emergence *as time*, that is, reflecting the experience in itself as much as the subjectivity of one's response to it. Not simply those experiences informed by the power of thought but also, and sometimes with more intensity, by the powers of sensibility, memory and imagination. By doing so, I asserted priority to the process of composition and representation of the musical idea. This process was explained by many a distinct creative impulse, always having in mind the strict relation these impulses might hold with time as experience. It was necessary, in this concern, to delineate some fundamental temporal orientations, routines and anti-routines, forms of freedom and control. From this point, in which the musical idea integrates a general notion of time as experience as it surpasses the mere status of a form of musical thought, it became clear that the discussion about the musical idea has no sense without a concurrent discussion about the notion of musical time, which, in turn, has no sense without a discussion about rhythm.

The limits of my approach were, thus, Schoenberg's concept of a temporality for the mu-

sical idea restricted to its presentation, and a notion of a superlunary musical idea, a universal something exterior to the individual creativity and to one's experience of time. I progressed between these limits taking into account as well Stockhausen's idea of musical time as continuity, which by existing as a dynamic and inarticulate spectrum is established as an equitable basis for the emergence of different musical formations. This notion is presented as an alternative both to a universal musical idea of Platonic extraction and to a delimitation of musical time by the concreteness of a sensory, sonic musical matter of Aristotelian descent. Stockhausen's musical idea was shown to echo the Bergsonian conception of delimiting the idea by the concreteness of an *interior life time*, as a response to memory and imagination, to thought and to representational actions (material, conceptual, artistic, etc.) that stem from concreteness. It also echoes the Deleuzian concept of an idea that is built in the self as knowledge (and whose genesis in the individual sensibility is unrepeatable).

All in all, the foremost concept presented, which permeates the whole work, was that of *rhythmic idea*. The rhythmic idea is a model for investigating the process of creation and representation of time in music and by music. Our ideas, pure times, are rhythmicalized in accordance with ideal rhythmical shapers. This rhythmical process emerges amid differences and repetitions, continuities and articulations, and only in the perspective of this rhythmical amalgamate of fluxes and influxes, I have argued, it is possible to consider the emergence of the musical idea proper, which stems from this process, and renders a mixture of the concreteness, so to say, of time and many a temporal concept, in a process that defines and fixes routines, that freezes impressions, at the same time that it liberates them from their own rhythmical mechanisation. It was thus that I have opposed concretenesses and concepts; and also that I have devised several musical compositional orientations as variations of these conceptual and concrete experiences.

Rhythmic ideas were shown to be consolidations of such variations, of the experience of the same and of the different, of the concept and of concreteness. They are formal gradations of different ideas.

The compositional process

In discussing the processes of musical composition, four thematics were contemplated: the rhythmicality of ontological temporal influxes; the rhythmicality of psychological temporal impulses, the rhythmicality of structural and metrical temporal pulses; and, finally, the rhythmicality of musical representation.

Thus, by the appropriation and re-elaboration of temporal notions presented by Bergson and Deleuze, I have presented the concept of a first, all-encompassing compositional domain of potentially distinct *musical times*, as diverse in quality and quantity, as the diversity

of our actual experiences and actions —, investigating among them the possibility and compositional viability of musical dramaticism and lyricalness, and their internal movements of temporal contraction and expansion. Compositional processes may be fundamentally oriented by distinct temporal influxes, which are never fixed, and change and exchange their creative powers all the time, even in a same compositional project.

I have introduced next the notion of a second, intermediate compositional domain, that of *musical temporalities*, which is internal to the first and receives from it, in totality, its temporal influence. Musical temporalities are also illuminated by a Bergsonian and Deleuzian-like approach to memory and imagination, and are defined by the actuation of distinct psycho-physiological factors or impulses, distinguished in terms of shallow and deeper memory and imagination types. I also have finally suggested a third compositional domain, that of musical temporalizations, here generally distinguished in terms of systemic and metric kinds only. Some aspects of Stockhausen's compositional practice came into play here, especially those concerning his spectral conception of musical time. Many further considerations may arise from these notions, chiefly those that may be linked with Schoenberg's traditional ones; for instance, that of development, variation and conjunction, or of the mutual relation between homophony and polyphony and their compositional treatment, etc. A same musical idea may be presented in numberless manners, in innumerous pieces of music. However, it is always possible to go upstream to the idea from which they sprung. Therefore, the study of musical composition should also be concerned with studying the composition of the idea, reaching further than the presentation of it, and comprising the metric image presented as medium. As Schoenberg exclaimed, it is not worthy "seeing how it is done… I have always helped people to see: what it is!"[3]

Lastly, after the presentation of the musical idea by means of the musical piece, comes its musical representation. To tackle this latter aspect, a few complementary arguments on musical representation may be touched, and chiefly among them are those of musical representation as temporal conformity and transgression. Either a 'con-formation' to the forms presented on the surface of the piece of music; or one that 'transgresses,' transcendentally breaking through that surface. Musical representation is always temporal. There is thus a musically represented time that conforms, that assimilates routines, which is frequently a time of repetition or nullification. But there is also a musically represented time that transgresses, that creates perspectives, a time of difference and discovery.

Musical Representation

All foregoing matters considered, we may affirm that, ideally, a piece of music reflects and concentrates the multiplicity and complexity of temporal intensities and interconnections

[3] Schoenberg, *Letters*, 164.

informed by the compositional process as a whole — not only its most superficial processes of temporalization, the structural and metric compositional operations that usually orient the presentation of the musical idea, but also the kind(s) of musical temporality(ies) and time(s), predominant or concealed, that constitute the musical idea´s rhythmical grounds. On this, one may always have in mind, by taking into consideration the many Schoenbergian arguments on the matter, that the art of composition of the musical idea and that of its presentation are different in kind. For example, when, in praising Mahler's scores, Schoenberg declares that

> one should really have been able to recognize Mahler's high artistry on one's first glance at his scores. [...] That it is entirely out of the question for someone to accomplish something masterly in any respect who is not a master in every respect. Therefore, anyone who can write such scores has one of those minds in which perfection automatically originates. And the concept of perfection completely excludes the concept of imperfection; therefore, it is not possible to give a representation of an imperfect thing which produces the impression of perfection.[4]

Or yet, on Bach's music, because

> while Bach [...] produced work after work in a new style, his contemporaries knew no better than to ignore him. [...] But [...] it was not musical *ideas* which their New Music wanted to establish, but only a new style for the presentation of musical ideas, whether old or new; it was a new wave in the progress of music, one which [...] tried to develop the other direction of musical space, the horizontal line.[5]

Also, when he separates musical *form*, as something related to musical presentation, and musical *content*, as something related to *that* (the idea) which must be presented, asserting that

> form in music serves to bring about comprehensibility through memorability. Evenness, regularity, symmetry, subdivision, repetition, unity, relationship in rhythm and harmony and even logic — none of these elements produces or even contributes to beauty. But all of them contribute to an organization which makes the presentation of the musical idea intelligible. The language in which musical ideas are expressed in tones parallels the language which expresses feelings or thoughts in words, in that its vocabulary must be proportionate to the intellect which it addresses, and in that the aforementioned elements of its organization function like the rhyme, the rhythm, the meter, and the subdivision into strophes, sentences, paragraphs, chapters, etc. in poetry or prose. The more or less complete exploitation of the potency of these components determines the aesthetic value and the classification of the style in respect to its popularity or profundity.[6]

Or yet, when Schoenberg elaborates, arguing in a detailed, long list of aesthetical reflections, the very same distinction between the musical idea and its presentation, to say that in order to value a composition, 'the expert'(or in other words the one who is able to)

---

[4] Arnold Schoenberg, *Style and Idea* (New York: Philosophical Library, 1950), 20.
[5] Schoenberg, *idem*, 43.
[6] Schoenberg, *idem*, *ibidem*.

should do it first of all in regard to the composition's more profound elements; he should value

> a composition more highly only if its themes and melodies are significantly formulated and well organized; if they are interesting enough to hold the attention of a listener; if there is a sufficiently great number of ideas; if they are well connected so as not to offend musical logic; if they are restricted by subdivision to a conceivable size; if monotony is avoided by good contrasts; if all ideas, however contrasting, can be proved to be only variations of the basic idea, thus securing unity; if a thorough elaboration proves that their inner merits surpass their incidental advantages.[7]

Secondly, after having evaluated a composition from these viewpoints, which are the ones related to the formulation of the musical idea, the expert should also proceed evaluating problems of style. He should ask, for example:

> Is the time-space adequate for the importance or the unimportance of the ideas? Are main ideas distinctly differentiated from subordinate ideas in space by adequate proportions as well as in emphasis, so as always to secure the predominance of the object? Is the breadth of the presentation justified? Is it admissible because of the number of ideas, because of their inescapable consequences, or because of comprehensibility? Is every detail presented in as brief and as condensed a manner as possible?[8]

Now, also according to Schoenberg, in order to achieve a unified formulation from both kinds of evaluation, the expert should lastly verify many other things. He should ask, for instance, about the appropriateness of the compositional techniques in use at the presentation of the idea.

> Does the profundity of the real meaning interfere with the elegance of the presentation and the polish of the surface? Is the material adequate with respect to the medium, and viceversa? Are heroic themes ascribed to unheroic instruments, such as flute, guitar or mandolin? Is a violin sonata supposed to express passionate emotions adequate for a symphony? Is an instrument as immobile as a contrabassoon required to play a gracious barcarolle? Is musical description stylized tonally and technically to fit the nature of the instruments, as the calls of the nightingale, quail and cuckoo in the Pastorale Symphony are suited to the flute, oboe and clarinet respectively? Is the descriptive element incorporated formally and motivally within the basic conditions of the piece? Are states or situations illustrated whose nature is opposed to that of music - as, for instance, expressing repose by slight movement, or silence by sounds, or abstract philosophy by concrete tones? Does the piece elaborate its ideas and material in a technique inappropriate to its style? Are contrapuntal ideas accompanied in a quasi-contrapuntal manner, scarcely producing more than a harmonization? Is the natural phrasing of a homophonic melody confused by the addition of sophisticated countermelodies, as often happens in popular music? Are dissonances which are not inherent in the tonal content added to simple folk-tunes?[9]

Or performing a deeper analysis and questioning about the inventiveness of a composer. In this case,

---

[7] Schoenberg, *Style and Idea*, 189.
[8] Schoenberg, *idem*, 190.
[9] Schoenberg, *idem*, *ibidem*.

> was he able to bring forth as much variety as unity and comprehensibility will tolerate and the stimulation of interest demands ? Was he able to prove the necessity of the work — that it was forced upon him by an inner urge for creation? Has he been able to produce something which fills a gap in the knowledge and culture of mankind, or, if not that, which at least satisfies a desire for entertainment? In other words, does his product, through novelty, prove to be a desirable contribution? Is this novelty one of essential or subordinate qualities? If derived from essentials, is it of a nature like Beethoven's dramatization of the elaboration, or comparable to the novelty of the structural, emotional and descriptive qualities of Schubert's songs? Or is it like Wagner's entirely new way of building, expressing, harmonizing and orchestrating, thus revolutionizing music in all its aspects? Has this novelty been produced through a new personality rather than through revolutionary changes, through evolutionary developments rather than through frightening outbursts? Did this novelty come from a personality comparable to a Mendelssohn, a Schumann, a Gounod, a Debussy, etc., — artists whose ambition was not that of the reformer, though their originality was rich and distinct enough?[10]

By delving into these distinctions, many compositional issues could be contemplated. One may think, for example, on a compositional process predominantly oriented by a dramatic musical idea whose dramaticism is negated or denied at the presentation of the idea. Let us consider this hypothetical example, for a moment, in the context of tonal harmony. Independently of its actual shape or contour, quality and number of elements, the harmonic progression that bridges the chords of tonic and dominant in a tonal piece is always devised in a dramatic context, that usually works a specific model of determination: the common practice of the past advises us that, in order to accomplish its destiny, above all to guarantee the balance of form, the tonic chord must be acoustically reinforced by means of the dominant one. This general sense determination is even more evident if such compositional device is used to define a moment of formal articulation between sections or main parts. This is a temporal sense, a dramatic idea which may be though deflected by mistake or want in its presentation. In this case, there happens to be a rupture, an incongruousness between the composition of the idea and the composition if its presentation (a rupture which is consequently sensed in its representation).

In many occasions, along with our training in the craft of music composition, we face this problem. It is this incongruousness that we fight against in order to elaborate a novel compositional project: sound materials, music notation, and the limits of performance and perception (evident or otherwise) enforce upon us many different challenges. Now, on the other hand, the musical pieces we admire have this effect on us mostly because they allow us a deepening of our perception (and, from that, also a deepening of our understanding) — on whose viability or not rest the majority of our aesthetical impressions —, yet a deepening that happens precisely because these very same pieces are usually congruous in their most superficial and inner temporal complexities.

I have argued that the creative process that orients the composition of a musical piece is

[10] Schoenberg, *Style and Idea*, 191.

informed by a number of rhythmicalizations, guided by distinct rhythmic ideas. It is up to us the interpretative mission, the crucial decision to delve into that process or to remain securely on its most apparent surface.

Musical thematicism, for instance, the object of a dramatic musical time, may be the reason for a simple and playful melodic enchantment; it may be, otherwise, a motivation for a complex analysis of music form. Yet, it may unite people under a same refrain, or gather distinct musicalities under a broad, all-encompassing musical polyphony. For, dramatic or lyrical, temporally expansive or contractive, oriented by regular or irregular impulses or balance, etc., a piece of music is most probably independently and distinctly represented. This does not mean, however, that the piece is senseless in regard to its own compositional process: a piece of music results, in any case, from concrete creative demands, from particular artistic necessities and interests, which are still *there* (as creative forces) to be shared by the many. The point is that musical representation, because musical, is also rhythmic and deals with the compositional process and its resulting musical piece, in a rhythmical way.

As we observed before, when discussing Schoenberg's concept of musical space present in his notes for the preface of his *Musikalische Gedanke*, for him, there are "profound and superficial ideas, higher and lower forms," that would allow for a distinction between "primitivism and art music."[11]

In another occasion he also states that for him a good composer

> likes to be conscious of what he produces; he is proud of the ability of his hands, of the flexibility of his mind, of his subtle sense of balance, of his never-failing logic, of the multitude of variations, and last but not least of the profundity of his idea and his capacity of penetrating to the most remote consequences of an idea. One cannot do this with a shallow idea, but one can, and one can only, with a profound idea.[12]

In the same terms, a representation of musical time may be deep or shallow. And since the depth of musical time ideally is so close to the very original source of our musicality — time in general — our interpretative duty will always be that of looking for the temporal complexity of the process of musical composition by means of the temporal complexity of our representation of it, and thus to enlarge and deepen the musical foreground, without ever denying its importance.

[11] Schoenberg, *The Musical Idea…* , 96.
[12] Schoenberg, *Style and Idea*, 439.

In this dissertation, I have attempted to translate into an all-embracing creative image of rhythmicalization, a view of the process of musical composition that expands Schoenberg's as a complement to his implicit intuition about the fundamental convergence of sensibility towards understanding in the musical idea. I have presented an image of an ideal rhythmical movement that is essentially creative and links different levels of subjective commitment that amalgamates both the lyrical and the dramatic creative impulses, the powers of continuity and articulation, the simultaneous and heterogeneous and the sequential and homogeneous, non-determination and determination, difference and repetition. I could not exhaust these images in all of their aspects, but only suggested a view of the organisation and functionality that the conceiving of these images allows. I have considered that contemplating them is already a creative exercise in the field of musical composition. I hope that future research could be made using some of the general notions here introduced so that these notions continue to be developed and detailed. I also hope that the synthesis of time and music proposed may induce the formulation of deeper compositional images. Lastly, I hope that the notions of musical expression and interpretation presented may lead to a larger discussion of the problem of the structural complexity of musical time and its rhythmicality.

This thesis opens the possibility of enquiring about the rhythmical qualities of the creative forces that constitute the compositional process. Therefore it expands a traditional notion of musical idea by means of diverse complex compositional images that do not necessarily, or easily, comply with the common understanding that composition is or must be always unequivocally coherent. It serves the purpose of demonstrating that the problem of compositionally achieving musical coherence is indeed only part of the whole compositional problem, which also includes a continuous search for innovation. There is a permanent rhythmical opposition, which is complementary but inevitably tensional, between achieving formal balance (and presenting this balance) and creating new, original pieces of music. This thesis provides a way of studying this creative tension, its duration and temporal complexity — its diverse and complex processes of expansion and contraction —, and, on the grounds of this possibility, I hope, it will contribute to the emergence and development of new musical creative processes for our times.

Bibliography

MAIN SOURCES

Adorno, Theodor W. *Alban Berg, Master of the Smallest Link*, trans. Juliane Brand and Christopher Hailey. Cambridge: Cambridge University Press, 1994.

Agsteribbe, Frank, et al. (ed.), *Identity and Difference: essays on music, language and time*. Leuven: Leuven University Press, 2004.

Allison, Henry E. "Kant´s Inaugural Dissertation and its Context," in *Kant's Transcendental Deduction: an Analytical-Historical Commentary*, 43-84. Oxford: Oxford University Press, 2015.

Almén, Byron. *A Theory of Musical Narrative*. Indiana University Press, 2008.

Anderson, Julian. "Note on Désintégrations." www.tristanmurail.com. Accessed 04 July, 2017. http://www.tristanmurail.com/en/oeuvre-fiche.php?cotage=28227.

Arndt, Matthew. *The Musical Thought and Spiritual Lives of Heinrich Schenker and Arnold Schoenberg*. New York: Routledge, 2018.

Augustine of Hippo, St. *Confessions*, ed. David Vincent Meconi. New Your: New City Press, 2012.

Bachelard, Gaston. *La Dialectique de la durée*. Paris: Boivin, 1936. Engl. trans. Mary McAllester Jones, *Dialectic of Duration*. Manchester: Clinamen Press, 2000.

Bachelard, Gaston. *L'intuition de l'instant*. Paris: Stock, 1932. Engl. trans. Eileen Rizo-Patron, *Intuition of the Instant*. Evanston: Northwestern University Press, 2013.

Bachelard, Gaston. *La philosophie du non*. Paris: Presses Universitaires de France, 1940. Engl. trans. G. C. Waterston, *The Philosophy of No: a philosophy of the new scientific mind* (New York: Orion Press, 1968).

Barry, Barbara Rosamund. *Musical Time: the sense of order*. New York: Pendragon Press, Stuyvesant, 1982.

Bedau, Mark A. "Weak Emergence," in J. Tomberlin, ed., *Philosophical Perspectives, Mind, Causation and World*, vol. 11 (1997): 375-399.

Begbie, Jeremy. *Theology, Music and Time*. Cambridge: Cambridge University Press, 2000.

Bent, Ian. *Analysis*. London: The Macmillan Press, 1987.

Bergson, Henri Bergson. *An Introduction to Metaphysics*. Indianapolis: Hackett Publishing Company, Inc., 1999.

Bergson, Henri. *Creative Evolution*. New York: Cosimo, 2005.

Bergson, Henri. *Matter and Memory*, trans. N. M. Paul and W. S. Palmer. New York: Zone Books, 1991.

Bergson, Henri. *The Creative Mind*. New York: Dover Publications, 2010.

Bergson, Henri. *Time and Free Will: an essay on the immediate data of consciousness*. New York: Dover Publications, 2001.

Berliner, Arnold. *Treatise of Physics In Elementary Presentation*. Berlin: Julius Springer, 1935. On line. Accessed 31 July, 2017. http://mpec.sc.mahidol.ac.th/radok/physmath/PHYSICS/Start.htm.

Barry, Barbara. *Musical Time: the sense of order.* New York: Pendragon Press, Stuyvesant, 1982.

Berry, Wallace. *Structural Functions in Music*. Mineola: Dover Publications, 1976.

Binkley, Timothy. "Langer's Logical and Ontological Modes," in *Journal of Aestheticsa and Art Criticism* 8 (1970): 455-464.

Birch, Deborah. "Time in New Music." MA dissertation, Brigham Young University, 1979.

Boss, Jack. *Schoenberg´s Twelve-tone Music: symmetry and the musical idea.* Cambridge: Cambridge University Press, 2014.

Boykan, Martin. *Silence and Slow Time: Studies in Musical Narrative*. Oxford: The Scarecrow Press Inc., 2004.

Brelet, Gisèle. *Le temps musical: essai d'une esthetique nouvelle de la musique*. Paris: Presses Universitaires de France, 1949.

Brower, Candace. "Memory and the Perception of Rhythm," in *Music Theory Spectrum*, vol. 15, nº 1 (Spring, 1993): 19-35.

Brown, Jason W. *Time, Will and Mental Process.* New York: Plenum Press, 1996.

Bryant, Levi R. *Difference and Givenness*. Evanston: Northwestern University Press, 2008.

Campbell, Edward. *Music after Deleuze*. London: Bloomsbury Academic, 2013.

Campbell, Edward. "Identity, Difference and Repetition: Boulez, Webern and Schoenberg," in *Music after Deleuze*, 11-15. London: Bloomsbury Academic, 2013.

Campbell, Edward. "Rethinking Boulez Schemes: logics and paradigms of musical modernity," in Erling E. Guldbrandsen and Julian Johnson (ed.), *Transformations of Musical Modernism*, 172-189. Cambridge: Cambridge University Press, 2015.

Carpenter, Patricia. "Musical Form and Musical Idea: reflections on a theme of Schoenberg, Hanslick and Kant," in *Music and Civilization: Essays in Honor of Paul Henry Lang*, ed. Edmond Strainchamps and Maria Rika Maniates with Christopher Hatch, 394-427. New York: Norton, 1984.

Carter, Elliot. "Shoptalk by an American Composer," in *Musical Quarterly* 46 (1960): 226-67.

Cherlin, Michael. *Schoenberg's Musical Imagination*. Cambridge: Cambridge University Press, 2007.

Cheveigné, A. de, "Pitch Perception," in *Oxford Handbook of Auditory Science - Auditory perception*, ed. Plack C. J., 71-104. Oxford: Oxford University Press, 2010.

Cook, Nicholas. *A Guide do Musical Analysis*. New York: Norton, 1992.

Cooper, Grosvenor and Leonard B. Meyer. *The Rhythmic Structure of Music*. Chicago: University of Chicago Press, 1960.

Cornicello, Anthony. "Timbral Organization in Tristan Murail's Dèsintégrations." PhD diss., Brandeis University, 2000.

Cott, Jonathan. *Stockhausen: conversations with the composer*. New York: Simon and Schuster, 1973.

Crispin, Dala and Kathleen Snyers. *Unfolding Time: studies in temporality in twentieth-century music*. Leuven: Leuven University Press, 2009.

Cushman, Robert E. "Greek and Christian Views of Time," in *The Journal of Religion* 33, nº 4 (1953): 254-265.

Dahlhaus, Carl. *Between Romanticism and Modernism: four studies in the music of the later nineteenth century*, trans. Mary Whitall. Berkeley: University of California Press, 1980.

Damasio, Antonio. *The Feeling of What Happens: body and emotion in the making of consciousness*. London: Vintage, 2000.

Decroupet, Pascal, Elena Ungeheuer and Jerome Kohl Source. "Through the Sensory Looking-glass: the aesthetic and serial foundations of *Gesang der Jünglinge*", in *Perspectives of New Music* 36, nº 1 (Winter, 1998), 97-142.

Deleuze, Gilles. *Bergsonism*, trans. H. Tomlinson and B. Habberjam. Brooklyn, NY: Zone Books, 1988.

Deleuze, Gilles. *Cinema I: the movement image*. London: Continuum, 1986.

Deleuze, Gilles. *Cinema 2: the Time-Image*, trans. Hugo Tomlinson and Barbara Habberjam. London: Continuum, 2011.

Deleuze, Gilles. "Conference Presentation on Musical Time," IRCAM Conference, 1977, webdeleuze.com. Accessed 07 August, 2017. https://www.webdeleuze.com/textes/113.

Deleuze, Gilles. *Difference and Repetition*, trans. Paul Patton. New York: Continuum International Publishing Group, 2004.

Deleuze, Gilles. *Kant's Critical Philosophy: the doctrine of faculties*. London: The Athlone Press, 1984.

Deleuze, Gilles. *Nietzsche and Philosophy*. London: Continuum, 1986.

Deleuze, Gilles. *Pure Immanence: essay on a life*, trans. Anne Boyman. New York: Zone Book, 2001.

Deleuze, Gilles. *Spinoza: Practical Philosophy*, trans. R. Hurley. San Francisco: City Light Books, 1988.

Deleuze, Gilles. "The Fold," in *Baroque Topographies: Literature/History/Philosophy.* Yale French Studies, nº 80 (1991): 227-247.

Deleuze, Gilles. *The Fold: Leibniz and the Baroque*. London: The Athlone Press, 1993.

Deleuze, Gilles. *The Logic of Sense*. London: Continuum, 2010.

Deleuze, Gilles and Felix Guattari. *A Thousand Plateaus*, trans. Brian Massumi. Minneapolis: University of Minnesota Press, 2005.

Deleuze, Gilles and Felix Guattari. *What is Philosophy.* New York: Columbia University Press, 1994.

Epstein, David. *Shaping Time: music, brain, and performance*. New York: Schirmer Books, 1995.

Freiberg, Elga. "Memory and Creativity in The Context of Ontopoiesis of Beingness: A-T. Tymieniecka and A. Bergson," in *Memory in the Ontopoesis of Life*, Analecta Husserliana (The Yearbook of Phenomenological Research, vol 101), 233-242. Dordrecht: Springer Dordrecht, 2009.

Friedheim, Philip. "Rhythmic Structure in Schoenberg's Atonal Compositions," in *Journal of the American Musicological Society*, nº 19 (1966): 59-72.

Gardner, Sebastian. *Kant and the Critique of Pure Reason*. London: Routledge, 1999.

Gibson, James J. *The Senses Considered as Perceptual Systems*. Boston: Houghton Mifflin, 1966.

Goehr, Alexander. "Schoenberg and Karl Kraus: The Idea behind the Music," in *Music Analysis* 4, nº. 1/2 (1985): 59-71.

Goldstein, Jeffrey. "Emergence as a Construct: history and issues," in *Emergence Complexity and Organization*, Issue 1, nº. 1 (1999): 49-72.

Guyer, Paul. "Introduction: The starry heavens and the moral law," in *The Cambridge Companion to Kant and Modern Philosophy*, 1-27. Cambridge: Cambridge University Press, 2006.

Hall, Stuart (ed.). *Cultural Representations and Signifying Practice*. London: Open University Press, 1997.

Harvey, Jonathan. *The Music of Stockhausen*. Los Angeles: University of California Press, 1975.

Hasty, Christopher. *Meter as Rhythm*. New York: Oxford University Press, 1997.

Hasty, Christopher. "Segmentation and Process in Post-Tonal Music," in *Theory Spectrum* 3 (1981): 54-73.

Hasty, Christopher. "The image of Thought and Ideas of Music," in *Sounding the Virtual: Gilles Deleuze and the theory and philosophy of music,* ed. Brian Hulse, 1-22. New York: Routledge, 2016.

Henck, Herbert. *Karlheinz Stockhausen's* Klavierstück X*: a contribution toward understanding serial technique: history, theory, analysis, practice, documentation.* Köln: Neuland Musikverlag Herbert Henck, 1980.

Hjelmslev, J. *Prolégomènes à une théorie du langage*. Paris: Minuit, 1968.

Holmes, Thom. *Electronic and Experimental Music: technology, music and culture*. New York: Routledge, 2012.

Hsieh, Diana Mertz. "Kant on Time." Paper, University of Colorado at Boulder, 2004.

Hughes, Joe. *Deleuze and the Genesis of Representation.* London: Continuum, 2008.

Hughes, Joe. *Deleuze's Difference and Repetition, a Readers Guide.* London: Continuum, 2009.

Hulse, Brian (ed). *Sounding the Virtual: Gilles Deleuze and the theory and philosophy of music*. Farnham: Ashgate, 2010.

Hulse, Brian."Thinking Musical Difference: musical theory as minor science," in *Sounding the Virtual: Gilles Deleuze and the theory and philosophy of music*, ed. Brian Hulse, 23-50. New York: Routledge, 2016.

Iddon, Martin. *New Music at Darmstadt: Nono, Stockhausen, Cage, and Boulez.* Cambridge: Cambridge University Press, 2013.

Jakobson, Roman. *Essais de linguistique générale*. Paris: Minuit, 2003.

Kant, Immanuel. *Critique of Judgement*, trans. James Creed Meredith. Oxford: Oxford University Press, 1952.

Kant, Immanuel. *Critique of Pure Reason*, unified edition, trans. Werner S. Pluhar. Indianapolis: Hackett Publishing Company, 1996.

Kant, Immanuel. *Dissertation on the Form and Principles of the Sensible and the Intelligible World*, trans. William J. Eckoff. New York: Columbia College, 1894.

Kitcher, Patricia. "Introduction," in Immanuel Kant, *Critique of Pure Reason*, unified edition. Cambridge: Hackett Publishing Company, Inc., 1996.

Korsyn, Kevin. *Decentering Music: a critique of contemporary musical research*. New York: Oxford University Press, 2003.

Kramer, Jonathan. *The Time of Music, new Meanings, new Listening Strategies*. New York: Schirmer Books, 1988.

Kramer, Jonathan. "Moment Form in Twentieth Century Music," in *The Musical Quarterly* 64, nº

2 (1978): 177-194.

Kramer, Jonathan. "New Temporalities in Music," in *Critical Inquiry* 7 (1981): 539-56.

Kurth, Ernst. *Selected Writings*, ed. Lee A. Rothfarb. Cambridge: Cambridge University Press, 1991.

Langer, Susanne, *Philosophy in a New Key*. New York: New American Library, 1954.

Langer, Susanne. *Feeling and Form*. New York: Scribners, 1953.

Lefebvre, Henri. *Space, Time and Everyday Life*. New York: Continuum, 2004.

Lester, Joel. *The Rhythms of Tonal Music*. Carbondale: Southern Illinois University Press, 1986.

Ligeti, György and Rainer Wehinger. *Artikulation: an aural score by Rainer Wehinger*. Mainz: Schott, 1970.

Lochhead, Judith. "The Temporal Structure of Recent Music: a phenomenological investigation." PhD thesis, State University of New York at Sony Brook, 1982.

London, Justin. *Hearing in Time: psychological aspects of musical meter*. Oxford: Oxford University Press, 2012.

Luce, Arthur A. *Bergson's Doctrine of Intuition: the Donnellan Lectures for 1921*. London: Society for Promoting Christian Knowledge, 1922.

MacDonald, Malcolm. *Schoenberg*. Oxford: Oxford University Press, 2008.

MacMahon, Melissa. "Difference, Repetition," in *Gilles Deleuze Key Concepts*, 42-52. Durham, Acumen, 2005.

Maconie, Robin. *Other Planets: the music of Karlheinz Stockhausen*. Oxford: Scarecrow Press, 2005.

Maconie, Robin. *The Works of Karlheinz Stockhausen*. London: Oxford University Press, 1976.

Marr, David. *Vision: A Computational Investigation into the Human Representation and Processing of Visual Information*. New York: Freeman & Company, 1982.

McCumber, John. *Time and Philosophy: a history of continental thought*. Durham: Acumen, 2011.

Messiaen, Olivier. *Technique de mon langage musical*, 2 vol. Paris: Alphonse Leduc, 1944.

Messiaen, Olivier. *Traité de rythme, de couleur, et d'ornithologie: 1949-1992*. Paris: Editions musicales Alphonse Leduc, 1994. Engl. trans. Melody Baggech, "An English Translation of Olivier Messiaen's Traité de Rythme, de Couleur, et D'ornithologie – Volume 1." Doctoral diss., The University of Oklahoma, 1998.

Mitchell, Willian J. T. "Representation", ed. Frank Lentricchia and Thomas McLaughlin, in *Critical Terms for Literary Study* (1990): 66-79.

Morgan, Robert P. "Musical Time/Musical Space," in *Critical Inquiry*, nº 6 (1980): 527-38.

Morgan, Robert P. "Stockhausen's Writings on Music," in *The Musical Quarterly* 75, nº 4 (1991): 194-206.

Moulard-Leonard, Valentine. *Bergson-Deleuze Encounters, Transcendental Experience and the Thought of the Virtual*. Albany: State University of New York Press, 2008.

Moulard-Leonard, Valentine. "Henri Bergson," *The Stanford Encyclopedia of Philosophy*. Accessed 05 July, 2017. http://plato.stanford.edu/archives/win2013/entries/bergson.

Nattiez, Jean-Jacques. *Fondements d'une Senmiologie de la Musique*. Paris: Union Generale d'Editions, 1975.

Nattiez, Jean-Jacques. *Music and Discourse*. New Jersey: Princeton University Press, 1990.

Perle, George. "Stockhausen and Musical Time," in *Music and Letters* 41, nº 2 (1960): 204-205.

Piana, Giovanni. *A Filosofia da Música*, trans. Antonio Angonese. Bauru: Edusc, 2001.

Prieto, Eric. "*Listening In: music, mind and the modernist marrative*. University of Nebraska Press, 2002.

Prigogine, Ilya, Isabelle Stengers, and Alvin Toffler. *Order Out of Chaos: man's new dialogue with nature*. New York: Bantam Boos, 1984.

Raghuram, H and G. Marimuthu. "Donald Redfield Griffin: the discovery of echolocation." in *Resonance*, Vol. 10, no. 2 (February 2005): 20–32.

Ramazzotti, Marinella. "Luciano Berio's Sequenza III: from electronic modulation to extended vocal technique," in *Ex-tempore. A Journal of Compositional and Theoretical Research in Music* XV/1 (Spring-Summer, 2010): 81-96.

Reiner, Thomas. *Semiotics of Musical Time*. New York: Peter Lang, 2000.

Restrepo, Jorge Alejandro Flórez. "Durée and temporality: a defense of Bergson's conception of time," in *Discusiones Filosóficas* 16, nº 27 (July – Decembre 2015): 49-61.

Ricoeur, Paul, "The Aporias of the Experience of Time: Book XI of Augustine's *Confessions*," in *Time and Narrative,* vol. 1, trans. David Pellauer, 5-30. Chicago: The University of Chicago Press, 1984.

Rochberg, George. *The Aesthetics of Survival: a composer's view on twentieth-century music*. Michigan: University of Michigan Press, 2004.

Roeder, John. "Interacting Pulse Streams in Schoenberg's Atonal Polyphony," in *Music Theory Spectrum* 16, nº 2 (1994): 231-249.

Rosen, Charles. *Sonata Forms*. New York: W. W. Norton and Company, 1984.

Rothfarb, Lee. "Introduction," in Ernst Kurth, *Selected Writings*, ed. Lee A. Rothfarb, 1-33. Cambridge: Cambridge University Press, 1991.

Rothfarb, Lee. *Ernst Kurth as Theorist and Analyst*. Philadelphia: University of Pennsylvania Press, 1988.

Roupnel, Gaston. *Silë*. Stock, 1927.

Rowell, Lewis. "The Subconscious Language of Musical Time," in *Music Theory Spectrum* 1 (1979): 96-106.

Rufer, Josef. *The Works of Arnold Schoenberg: a catalogue of his compositions, writings and paintings*, trans. Dika Newlin. London: Faber, 1962.

Saussure, Ferdinand de. *Course in General Linguistics,* trans. Roy Harris. Chicago: Open Court, 1972.

Scherzinger, Martin. "Enforced deterritorialization, or the trouble with Musical Politics," in *Sounding the Virtual: Gilles Deleuze and the Theory and Philosophy of Music*, ed. Brian Hulse and Nick Nesbitt, 103-128. Farnham: Ashgate, 2010.

Schachter, Carl. *Unfoldings Essays in Schenkerian Theory and Analysis*. Oxford: Oxford University Press, 1999.

Schoenberg Arnold. *Preliminary Exercises in Counterpoint*, ed. Leonard Stein. New York: St. Martin's Press, 1964.

Schoenberg, Arnold. *Structural Functions of Harmony*, ed. Leonard Stein. New York: Norton, 1954.

Schoenberg, Arnold. *Style and Idea: selected writings of Arnold Schoenberg*. Los Angeles: University of California Press, 1984.

Schoenberg, Arnold. *Theory of Harmony*, trans. Roy Carter. Berkeley: University of California Press, 1978.

Schoenberg, Arnold. *The Musical Idea and The Logic, Technique and Art of its Presentation*, ed. Patricia Carpenter and Severine Neff. Bloomington: Indiana University Press, 2006.

Schoenberg, Arnold. *Letters*, ed. Erwin Stein, trans. Eithne Wilkins and Ernst Kaiser. London: Faber and Faber, 1964.

Sciarrino, Salvatore. *Le Figure della Musica, da Beethoven a Oggi.* Milano:Ricordi, 1998.

Seincman, Eduardo. *Do Tempo Musical*. São Paulo: Via Lettera, 2001.

Simms, Bryan R. *The Atonal Music of Arnold Schoenberg, 1908-1923*. Oxford: Oxford University Press, 2000.

Smith, Daniel and John Protevi. "Gilles Deleuze," *The Stanford Encyclopedia of Philosophy*. Accessed 07 July, 2017. http://plato.stanford.edu/archives/win2015/entries/deleuze.

Smith, F. Joseph. *The Experiencing of Musical Sound: prelude for a phenomenology of music*. New York: Gordon and Breach Science Publishers, Inc., 1979.

Snyder, Bob. *Music and Memory*. Massachusetts: Massachusetts Institute of Technology, 2000.

Souvtchinsky. Pierre. "La notion du temps et la musique," in *Revue Musicale* 20 (1939): 310-20.

Souvtchinsky, Pierre, *Un siècle de musique russe (1830-1930).* ed. Frank Langlois. Arles: Actes Sud/Association Pierre Souvitchinsky, 2004.

Spies, Claudio. "Vortrag/12 T K/Princeton," in *Perspectives of New Music* 13 (1974): 58-136.

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

Stack, George J. "Review: La dialectique de la durée by Gaston Bachelard," in *Philosophische Rundschau* 22, nº 3/4 (1976): 265-271.

Stein, Leonard, ed., "Schoenberg: five statements," in *Perspectives of New Music* 14 (1975): 164-65.

Stockhausen, Karlheinz. "…How Time Passes…," in *Die Reihe* 3 (1959): 10-40.

Stockhausen, Karlheinz. "Interview with Eric Salzman," www.stockhausen.org. Accessed 27 July, 2017. http://www.stockhausen.org/salzman.htm.

Stockhausen, Karlheinz. "Momentform: Neue Beziehungen zwischen Aufführungsdauer, Werkdauer und Moment," in *Texte zur Elektronische und Instrumentalen Musik* 1 (1963): 189-210. Cologne: DuMont Schauberg, 1963.

Stockhausen, Karlheinz. "Structure and Experiential Time," in *Die Reihe* 2 (1959): 64-74.

Stockhausen, Karlheinz. "The Concept of Unity in Electronic Music." trans. Elaine Barkin, in *Perspectives on Contemporary Music Theory*, ed. Benjamin Boretz and Edward T. Cone, 214-225. New York: Norton, 1972.

Stockhausen, Karlheinz. *Stockhausen on Music: lectures and interviews,* ed. Robin Maconie. London: Marion Boyars, 2010.

Stockhausen, Karlheinz. *Texte zur Musik 1963 - 1984*, vol. 3. Kürten: Stockhausen-Verlag, 1991.

Stravinsky, Igor. *Poetics of Music in the Form of Six Lessons.* Cambridge, MA: Harvard University Press, 1970.

Stumpf, Carl. *Tonpsyshologie*, 2 vol. Leipzig: Hirel, 1890.

Surin, Kenneth. "Force," in *Gilles Deleuze Key Concepts*, 19-30. Durham, Acumen, 2005.

Tingley, George Peter. "Metric Modulation and Elliott Carter's First String Quartet," in *Indiana Theory Review* 4, nº. 3 (Spring 1981): 1-13.

Tymieniecka, Anna-Teresa. "Toward the Reformulation of a Classic Problem: Memory in the Ontopoiesis of Life," in *Memory in the Ontopoiesis of Life*, Book One, *Memory in the Generation and Unfolding of Life*, x-xvii. Hanover: Springer, 2009.

Webern, Anton. *Der Weg Zur Neuen Musik / Der Weg zur Komposition in 12 Tönen*. Vienna: Universal Edition, 1960.

Webern, Anton. *O Caminho para a Música Nova*, trans. Carlos Kater. São Paulo: Novas Metas, 1984.

Yeston, Maury. *The Stratification of Musical Rhythm*. New Haven: Yale University Press, 1976.

Zuckerkandl, Victor. *Sound and Symbol: Music and the External World*, trans. Willard R. Trask. Princeton: Princeton University Press, 1956.

ADDITIONAL SOURCES

Adorno, Theodor W. *Aesthetic Theory*, trans. Robert Hullot-Kentor. London: Continuum, 2004.

Alperson, Philip. "Musical Time and Music as an Art of Time," in *Journal of Aesthetics and Art Criticism* 38 (1980): 407-417.

Annas, Julia. "Aristotle, Number and Time," in *The Philosophical Quarterly* 25, nº 99 (1975): 97-103.

Badiou, Alain. *Deleuze, the Clamor of Being*, trans. Louise Burchill. Minneapolis: University of Minnesota Press, 2000.

Baroni, Mario, Simon Maguire and William Drabkin. "The Concept of Musical Grammar," in *Music Analysis* 2, nº 2 (1983): 175-208.

Bent, Ian. *Analysis*. London: The Macmillan Press, 1987.

Bogue, Ronald. *Deleuze's Wake: tributes and tributaries*. Albany: State University of New York Press, 2004.

Boretz, Benjamin. "Meta Variations: studies in the foundation of musical thought I," *Perspectives of New Music* 8 (1969): 1-74.

Boretz, Benjamin, Harold Olivier, Barney Childs and Charles Whittenberg. "The Nature of Continuity in Music", in *Proceedings of the American Society of University Composers* 6 (1971): 49-82.

Brelet, Gisèle. "Music and Silence", in *Reflections on Art*, ed. Susanne Langer, 103-121. Baltimore: Johns Hopkins Press, 1958.

Cage, John. *Silence*. London: Calder and Boyers, 1973.

Cage, John. "The Future of Music," in *Esthetics Contemporary*, ed. Richard Kostelantez, 288-300. Buffalo: Prometheus, 1978.

Caplin, Willian. "Theories of Musical Rhythm in the Eighteenth and Nineteenth Centuries," in *The Cambridge History of Western Music Theory*, ed. Thomas Christensen, 657-694.

Cambridge: Cambridge University Press, 2002.

Carey, Susan. *The Origin of Concepts*. Oxford: Oxford University Press, 2009.

Carter, Elliott. *Collected Essays and Lectures, 1937-1995*. Rochester: University of Rochester Press, 1998.

Carter, Elliott. "Music and the Time Screen", in *The Writings of Elliott Carter*, eds. Kurt and Else Stone, 343-65. Bloomington: Indiana University Press, 1977.

Carter, Elliott. "The Time Dimension in Music," in *The Writings of Elliott Carter*, eds. Kurt and Else Stone, 243-47. Bloomington: Indiana University Press, 1977.

Chalmers, David J. *The Conscious Mind: in search of a fundamental theory*. Oxford: Oxford University Press, 1997.

Coker, Wilson. *Music and Meaning*. New York: Free Press, 1972.

Cook, Nicholas. *Musical Analysis and the Listener*. London: Garlan Publishing, 1989.

Covach, John. "Schoenberg and the Ocult," in *Theory and Practice: Journal of the Music Theory Society of New York State* 17 (1992): 103-118.

Cowell, Henry. *New Musical Resources*. Cambridge: Cambridge University Press, 1996.

Damasio, Antonio. *Decartes' Error*. London: Vintage, 2006.

Deacon, Terrence W. *Incomplete Nature: How Mind Emerged from Matter*. New York: Norton and Company, 2012.Downey, John. "Texture as Psycho-Rhythmics," in *Perspectives of New Music*, nº 20 (1981): 64-648.

Dunk, John L. *The Origin and Structure of Rhythm*. London: James Clarke, 1952.

Eisenbrey, Keith E. "Timeshapes," in *Perspectives of New Music* 20 (1981/82): 649-650.

Elston, Arnold. "Some Rhythmic Practices in Contemporary Music," in *Musical Quarterly* 42 (1956): 318-29.

Epstein, David. "Duration," in *Beyond Orpheus*. 55-98. Cambridge: MIT Press, 1979.

Epstein, David. "On Musical Continuity," in *The Study of Time*, eds. J. T. Fraser, N. Lawrence and D. Park, 180-197. New York: Springer-Verlag, 1981.

Ferraz, Silvio. *Música e Repetição: aspectos da diferença na música do século XX*. São Paulo: Educ, Fapesp, 1998.

Fleming, William. "Newer Concepts of Time and Their Relation to the Temporal Arts", in *Journal of Aesthetics and Art Criticism* 4 (1945): 101-106.

Forte, Allen. *The Structure of Atonal Music*. New Haven: Yale University Press, 1977.

Franks, Bradley. *Culture and Cognition*. Hampshire: Palgrave, 2011.

Haimo, Ethan. *Schoenberg's Serial Odyssey: the evolution of his twelve-tone method, 1914-1928*. Oxford: Clarendon Press, 1990.

Hasty, Christopher. "Rhythm in Post-tonal Music: preliminary questions of duration and motion," in *Journal of Music Theory* 25, nº 2 (1981): 183-216.

Hasty, Christopher. "On the Problem of Succession and Continuity in Twentieth-century Music," in *Music Theory Spectrum* 8 (1986): 58-74.

Helmholtz, Hermann von. *On the Sensations of Tone as a Physiological Basis for the Theory of Music*, ed. and trans. Alexander John Ellis. London: Longmans, Green and Co., 1895.

Hill, Peter (ed). *The Messiaen Companion*. London: Faber and Faber, 1995.

Jung, Carl G. *Four Archetypes*, trans. R. F. C. Hull. Abingdon: Routledge Classics, 2003.

Kohl, Jerome. "The Evolution of Macro and Microtime Relations," in Stockhausen's Recent Music," in *Perspectives of New Music* 22 (1983): 147-86.

Kortooms, Antonie J. M. *Phenomenology of time: Edmund Husserl's analysis of time-consciousness*. Boston: Kluwer Academic Publishers, 2002.

Krebs, Harald. "Some Extensions of the Concepts of Metrical Consonance and Dissonance," in *Journal of Music Theory*, nº 31 (1987): 99–120.

Laske, Otto. "Introduction to a Generative Theory of Music," in *Sonological Reports*, no. lb, (1975).

Lerdahl and Jackendoff, "Toward a Formal Theory of Tonal Music," in *Journal of Music Theory*, vol. 21, no. 1 (1977), 111-172;

London, Justin M. "Rhythm in Twentieth-century Theory," in *The Cambridge History of Western music theory*, 695-725. Cambridge: Cambridge University Press, 2002.

Maniates, Maria R. "Sound, Silence, and Time: towards a fundamental ontology of music," in *Current Musicology* 3 (1966): 59-64.

Marcel, Gabriel. "Bergsonism and Music," in *Reflections of Art*, ed. Susanne Langer, 142-151. Baltimore: Johns Hopkins Press, 1958.

Messiaen, Olivier. *Foreword to Quartet for the End of Time*. Paris: Editions Durand, 1941.

Messiaen, Olivier. *Conferénce de Bruxelles*. Paris: Alphonse Leduc, 1960.

Meyer, Leonard B. *Emotion and Meaning in Music*. Chicago: University of Chicago Press, 1956.

Narmour, Eugene. *Beyond Schenkerism: the need for alternatives in musical analysis*. Chicago: University of Chicago Press, 1977.

Pearsall, Edward. "Interpreting Music Durationally: a set-theory approach to rhythm," in *Perspectives of New Music* 35, nº 1 (1997): 205-230.

Perle, George. "Pitch-Class Set Analysis: an evaluation," in *The Journal of Musicology* 8, nº 2 (1990): 151-172.

Perle, George. *Serial Composition and Atonality: an introduction to the music of Schoenberg, Berg and Webern*. London: Faber and Faber, 1962.

Plato. *Timaues*. Indianapolis: Hackett Publishing Company, 2000.

Plato. *Republic*. trans. Robin Waterfield. Oxford: Oxford University Press, 2008.

Pousseur, Henri. "The Question of Order in New Music," in *Perspectives on Contemporary Music Theory*, ed. Benjamin Boretz and Edward T. Cone (1972): 97-115.

Pryer, Anthony. "Nattiez's Music and Discourse: situating the philosophy," in *Music Analysis* 15, nº 1 (1996): 101-116.

Raffman, Diana. *Language, Music and Mind*. Cambridge, MA: MIT Press, 1993.

Ricoeur, Paul. *Tempo e Narrativa*, 3 vol. São Paulo: Martins Fontes, 2010.

Rochberg, George. "The Concepts of Musical Time and Space," in *The Aesthetics of Survival*, 78-136. Ann Arbor: University of Michigan Press, 1984.

Rochberg, George. "The Structure of Time in Music: traditional and contemporary ramifications

and consequences," in J. T. Fraser and N. Lawrence, ed., *The Study of Time* 2, 136-149. New York: Springer-Verlag, 1975.

Rowell, Lewis. "The Creation of Audible Time," in *The Study of Time* 4, ed. J. T. Fraser, N. Lawrence, and D. Park, 198-210. New York: Springer-Verlag, 1981.

Ruwet, Nicolas. "Theorie et Methodes dans les Etudes Musicales," in *Musique en Jeu*, no. 17, (1975): 11-36.

Salzer, Felix. *Structural Hearing: tonal coherence in music*. 2 vol. New York: Dover, 1982.

Subotnik, Rose Rosengard. *Deconstructive Variations: music and reason in Western society*. Minneapolis: University of Minnesota Press, 1996.

Swain, Joseph P. *Musical Languages*. New York: Norton and Co., 1997.

Taylor, Clifford. *Musical Idea and the Design Aesthetic in Contemporary Music: a text for discerning appraisal of musical thought in Western culture*. Lewiston, NY: Edwin Mellen Press, 1990.

Varga, Bálint A. *Conversations with Iannis Xenakis*. London: Faber and Faber, 1996.

Webb, David. "Gaston Bachelard: construction and temporal discontinuity," in *Foucault's Archaeology*. Edinburg University Press, May 2013.

Welshon, Rex. *Philosophy, Neuroscience and Consciousness*. Durham: Acumen, 2011.

Westergaard, Peter. "Some Problems in Rhythmic Theory and Analysis," in *Perspectives of New Music* 1, nº 1 (1962): 180-191.

Whittall, Arnold. *Musical Composition in the Twentieth Century*. New York: Oxford University Press, 1999.

Whittall, Arnold. *Music Since the First Word War*. London: J. M. Dent and Sons Ltd., 1977.

Whittal, Arnold. "Post-twelve-note Analysis," in *Proceedings of the Royal Musical Association* 94 (1967/1968): 1-17.

Glossary

Alternative Deleuzian difference — This difference is multiple, decentering and complex: a creative power. It stands for an affirmative, creative difference that is more comprehensive than the difference that only exists negatively — in opposition to the same — contrasting the identity of the concept.

Anti-rhythmical — Creative processes (or even features of these processes) are anti-rhythmical when they do not provide (or fail in their attempt to inform) innovative, original compositional solutions. All in all, the anti-rhythmical feature is grounded on repetition and marked by the recycling of standardized ideas or formulas.

Characterization and routinization, notions of — Characterization is a general compositional notion of identity. Routinization, however, is a general compositional notion of temporal progression that relies on the notion of characterization. This notion is linked to the idea of future, but a dramatic future, in which one may depict a sense of order and reason, a sense of necessity. These temporal aspects are here directly related to musical thematicism and to the process of changing that affects a theme along (variational, developing, etc.) temporal structurations.

Compositional translucency — The composer as a giver and the performer (also the listener, the analyst, etc.) as a receiver, work together within many levels of compositional translucency, a term that stems from Bergson (See Translucent cognitive interfaces, below). It is this translucency that may allow them to penetrate and contaminate each other's domain of expression and interpretation, in order to discover the expressive features through and within an interpretative act, and also to reveal the profound interpretative quality of an expressive gesture.

Continuative musical formulae — Granted that understanding *articulates* while sensibility *endures* the duration of the experience, my suggestion is that we must approach music not only as articulation — by thinking it — but also as continuity —by sensing, living it. Moreover, I propose that we must approach music always considering how understanding and sensibility interact creatively in their mutual rhythmicality.

Creative antagonism — This antagonism stands for the necessary creative dialectics that grounds a compositional process as a whole. It is a pervasive creative clash of dramatic and lyrical forces that informs and gradually *forms* the musical piece and, consequently, also its representation.

Dramatic and lyrical ways of thinking — A dramatic way of thinking is related to determination and coherence. It is a logical way of thinking, which produces interrelationships among things which otherwise are not related. A lyrical way of thinking is related, in turn, to non-determination and non-coherence. It is not necessarily logical, and accepts non-logical relationships, such as metaphors, discontinuities, non-linearities and random or also chaotic routines.

Duration and temporal flux — The term DURATION is used in a Bergsonian way referring to a plenitude of time that is deeply dynamic and heterogeneous (that resists stratifications or segmentations). The TEMPORAL FLUX is permeated by distinct moments, by instants of temporal complexity, by particular intensifications and revolutions of the self. It stands for a complex, fluid existential force composed of different levels of *spatialisation* within the duration. The feeling itself of the passage of time in us is motivated by this flux.

Evanescent forms — An evanescent form is a form of temporal flux. It is a fluency-form created by the interchange of the temporal meanings conveyed by distinct rhythmic ideas. It is a form interpenetrated by the continuous collaboration between musical interpretation and musical expression. This form is never fixed or given, but subtle and variable.

Expression and interpretation — Both expression and interpretation are seen as components of a same compositional continuum. The expressive side of music is always ideally contemplated within a certain interpretative commitment and vice versa. Thus, expression and interpretation are mutually implicated in *forming* a compositional process as a cognitive operation.

Fold and temporal folding — A temporal fold is the condition for the manifestation of a creative act. Here I quote Deleuze who says that "folds are in the soul and authentically exist only in the soul. That is already true for 'innate ideas': they are pure virtualities, pure powers whose act consists in habitus or arrangements (folds) in the soul, and whose completed act consists of an inner action of the soul (an internal deployment). But this routines is no less true for the world: the whole world is only a virtuality that currently exists only in the folds of the soul which convey it, the soul implementing inner pleats through which it endows itself with a representation of the enclosed world. We are moving from inflection to inclusion in a subject, as if from the virtual to the real, inflection defining the fold, but inclusion defining the soul or the subject, that is, what envelops the fold, its final cause and its completed act." See Deleuze, *The Fold* …, 23.

Forms (images) of temporal complexity — These forms are the *substance* of a musical idea, representing the heterogeneity of its duration. They are not sounds, but what sounds in a musical composition refer to in order to present and represent a musical idea.

Individual time and social time — The INDIVIDUAL TIME is the time of the self, the time that is independent of social conventions and preconceptions. The SOCIAL TIME is the opposite. It only exists in such conventions. But social time is not a time that exists outside us. It is *in* us forming and influencing our individual time. In this sense, musical expression and interpretation are creative forces directly related to such a dichotomy between that which in us represents ourselves and what in us represents the culture we are part of.

Layers of musical meaning — I use the term layer to indicate that the distribution of the musical idea's complexity in memory and imagination happens in different levels, more or less superficial. This is frequently conveyed as relations between musical elements of foreground, middle ground, and background. These levels interact as layers, simultaneously and complementarily.

Musicality — Musicality is a fundamental musical sense. It is ampler in scope and importance than the auditory sense. It implicates the totality of the self, the whole set of one's musical faculties and abilities, including one's musical imagination, and capacity of establishing intimate aesthetical relations with a given musical form or sonority.

Perfection (temporal balance as) — Perfection is given here a Platonic sense, in which balance and proportion are eternal and, because of this temporal plenitude, intellectually and artistically desirable. Thus, even though it rests beyond our (temporal) understanding, this plenitude, as the formal foundation of reality, should for many, in theory, forever inform and influence our artistic capabilities. This way, our artistic products should, always, somehow mirror a temporal perfection: any (human) temporal imbalance — or imperfection — should be thus tamed in favour of a superior dramatic temporal balance, always to be restored.

Referential horizon — Is related to reason. Things are rationally measured and organised only in relation to a determinate point of reference. The rational world is a referential world, because a fixed value is necessary in order to rationalise change. This fixed value is typically created as a norm of balance that operates between the principles of regularity and irregularity.

Rhythmic idea — The term indicates a compositional force that qualifies the temporal complexity of a musical idea, infusing it with rhythmic nuances. The rhythmic idea may be thought as a 'complex-filter' oriented to musical representation. Therefore, musical composition is conditioned by the functional treatment of rhythmic ideas.

Rhythmic Idea of Closed Refrain, [CRe] — A fundamental rhythmic idea that results from the blend, the rhythmicalization, of the compositional notions of characterization, [C], and routinization, [R].

Rhythmic Idea of Closed Route, [CRo] — A fundamental rhythmic idea that results from the blend, the rhythmicalization, of the compositional notions of non-characterization, [NC], and routinization, [R].

Rhythmic Idea of Open Refrain, [ORe] — A fundamental rhythmic idea that results from the blend, the rhythmicalization, of the compositional notions of characterization, [C], and non-routinization, [NR].

Rhythmic Idea of Open Route, [ORo] — A fundamental rhythmic idea that results from the blend, the rhythmicalization, of the compositional notions of non-characterization, [NC], and non-routinization, [NR].

Rhythmic Idea of Strong Asymmetrization, [SA], (appendix 1) — An intermediate rhythmic idea that implies a strong creative impulse towards the composition of asymmetries. It results from the blend, the rhythmicalization, of a superficial imagination quality, [SI], that privileges the manifestation of irregularity, and the rhythmic idea of closed refrain, [CRe], which is preponderantly dramatic, temporally contractive, and oriented to the confirmation of the thematic feature.

Rhythmic Idea of Strong Balance, [**SB**], (appendix 1) — An intermediate rhythmic idea that implies a strong creative impulse towards formal balance. It results from the blend, the rhythmicalization, of a deep memory quality, [DM], and the rhythmic idea of closed route, [CRo].

Rhythmic Idea of Strong Symmetrization, [**SS**], (appendix 1) — An intermediate rhythmic idea that implies a strong creative impulse towards the composition of symmetries. It results from the blend, the rhythmicalization, of a superficial memory quality, [SM], that privileges the manifestation of regularity, and the rhythmic idea of closed refrain, [CRe], which is preponderantly dramatic, temporally contractive, and oriented to the confirmation of the thematic feature.

Rhythmic Idea of Strong Unbalance, [**SU**], (appendix 1) — An intermediate rhythmic idea that implies a strong creative impulse towards formal unbalance. It results from the blend, the rhythmicalization, of a deep imagination quality, [DI], and the rhythmic idea of closed route, [CRo].

Rhythmic Idea of Weak Asymmetrization, [**WA**], (appendix 1) — An intermediate rhythmic idea that implies a weak creative impulse towards the composition of asymmetries. It results from the blend, the rhythmicalization, of a superficial imagination quality, [SI], that privileges the manifestation of irregularity, and the rhythmic idea of open refrain, [ORe], which is preponderantly lyrical, temporally expansive, and oriented to the problematization of the thematic feature.

Rhythmic Idea of Weak Balance, [**WB**], (appendix 1) — An intermediate rhythmic idea that implies a weak creative impulse towards formal balance. It results from the blend, the rhythmicalization, of a deep memory quality, [DM], and the rhythmic idea of open route, [ORo].

Rhythmic Idea of Weak Symmetrization, [**WS**], (appendix 1) — An intermediate rhythmic idea that implies a weak creative impulse towards the composition of symmetries. It results from the blend, the rhythmicalization, of a superficial memory quality, [SM], that privileges the manifestation of regularity, and the rhythmic idea of open refrain, [ORe], which is preponderantly lyrical, temporally expansive, and oriented to the problematization of the thematic feature.

Rhythmic Idea of Weak Unbalance, [**WU**], (appendix 1) — An intermediate rhythmic idea that implies a weak creative impulse towards formal unbalance. It results from the blend, the rhythmicalization, of a deep imagination quality, [DI], and the rhythmic idea of open route, [ORo].

Rhythmicalization — Rhythmicalization is a compositional process, a creative operation, by which means the idea is *infused* with levels of complexity. Distinct rhythmicalizations overlay each other forming distinct compositional levels. Therefore, each rhythmicalization may be considered in itself a fully independent functional order. To rhythmicalize means to elaborate the idea providing it with a characteristic *temporal texture*, with a form, but a form which is entirely temporal. The external and internal temporal characteristics of this form compose its rhythm, and the process of creation of its characteristics stands for its rhythmicalization.

Rhythmicality — The term subsumes the total set of rhythmic conditions, functions, and features that ground the compositional process as a whole, including the underlying creative, temporal forces that support the form and the shape of a musical piece, and how the musical piece itself is rhythmically presented and represented.

Sameness — Sameness is a concept of repetition. It refers to the repetition that manifests, as idea, a 'centripetal sense,' responsible for engendering the principles of reason that subordinate difference: identity of the concept, analogy of judgement, opposition of predicates, resemblance of the perceived.

Sense-continuity — This notion is related to the process of thinking which is present in the creative flow of music composition. It includes both the immanent and the transcendental conditions (and necessities) that permeate this process.

Temporal expansion and contraction — Considered strictly from the point of view of musical composition, a TEMPORAL EXPANSION results from giving birth to novel compositional strategies and, by extension, from expanding the notion of musical composition, by being musically creative; a TEMPORAL CONTRACTION results otherwise from dealing with a given commonality of compositional techniques already in use by others. All in all, time (time in general and musical time) expands as concreteness and differential complexity: the more concrete and unique the thing, in its becoming, the more expanded its time.

Temporalities — Temporalities are aspects of memory and imagination that evidence distinct levels of functional response, or of *response time,* to the products of primary rhythmic ideas according to their own levels of complexity. Temporality is here linked to the notion of temporal resignification that occurs in a more conscious cognitive level, that of memory and imagination. The difference between time and temporality resides, thus, in the opposition between the psychophysiological nature of temporalities and the ontological nature of times.

Temporalizations — Temporalizations are the metrical shapes that constitute the temporal characteristics of a musical piece. They represent what is ordinarily called music forms. Forms that may be bound to *memory*, as structural crystallizations of musical time, or to *imagination*, as their projections.

Times — The *time* here referred is not the quantitative time one may measure as the seconds, minutes, or hours in a day, etc.; but the qualitative time one may *experience* during the passage of a number of seconds, minutes, hours, etc.; it is the time one differentiates as the quality of the passage of the individual living experience, when one compares two different periods of life, or the difference between a pleasant and an unpleasant moment. The time here referred is hence a qualitative time, unique to the self and which does not exist without the self.

Translucent cognitive interfaces — This is a Bergsonian term related to the degree of our attention to life (while it is also related to the complexity of time in us): the more translucent the being, the more open he is to the diversity and multiplicity of nature, to its creative evolution, and vice versa.

Zone of projection of musical meaning — The notion of zone of meaning opposes the notion of LAYERS OF MUSICAL MEANING. Zone means something like a region within the individual imagination, something like a *mental panel*. Since this panel receives not images but *time*, or better *temporal images*, one may consider the zone of projection of musical meaning as something similar to our capacity of imagining new melodies or harmonies, as something analogous to a *compositional inner ear*.

Appendix 1

Second level rhythmic ideas, short examples and commentaries

SECOND LEVEL RHYTHMIC IDEAS

The impulse towards symmetry and asymmetry

The impulse towards symmetry (which I suggest is oriented by a shallow memory quality) represents a faster, automatised response-time to stimuli. Following Deleuze on this matter, this temporality exerts, for the most part, a pure genetic power which is ideally *in*-formed by the 'embodiment' — by the *soul*, to say it with Deleuze — of an all-encompassing vital force that makes sense of past in itself.[1] By the embodiment of *the other*, in the sense of his concept of the 'Other Person', who however "always perceived as an other," is actually "the condition of all perception, for others as for ourselves"[2] — the condition of the instinct.

In it, our instinctive acts assume a novel significance: they are shallow memory impulses emerging from the memory of the tissue, of the cell; they are, in all possible senses, our body and also the manifold connections our body makes with other bodies, including the whole heritage of connections accumulated along the formative eras of our species.

According to this, its manifestation represents a confirmation of the past and an abidance by unequivocal, mechanical routines. Of all musical temporalities, this is the less conscious and the most reactive. It works a sort of motoric-memory that aims at a greater economy of attention, a more immediate, readier response to stimuli that privileges reiterative processes, rhythmical regularity, articulation and pattern.

The impulse towards asymmetry (otherwise oriented by a shallow imagination quality), then, operates in a relatively slower and more aware response time. And works dialectically by opposing symmetric tendencies. It contradicts the 'regularity of the cause', the norm, the rule, allowing as consequence the emergence of the new 'rhythmical feeling' or sentiment, the calling of the surprise.[3] In this specific sense, I argue that to be emotionally charged by music always requires a contradiction, a deviation, and a destabilisation; it seems to depend on capturing the insurgent instant and using it as a platform for

---

[1] See Bergson's concept of *Elan Vital* in Henri Bergson, *Creative Evolution* (New York: Cosimo Classics, 2005).

[2] Deleuze and Guattari, *What is Philosophy*, 18.

[3] Feeling, as Damasio explains, is significative of a superior level of temporal complexity. The 'feeling of being' is temporally more complex when compared with the 'sensation of being,' because the sensation in this case compromises the self no more than in the sense of a determinate capacity, like the capability of hearing, seeing, touching, etc., while the feeling compromises the self beyond these capabilities in the sense of 'who is hearing,' 'who is seeing,' or 'who is touching,' etc. It may be said that sensation is turned to the past, because it is necessarily inscribed within a certain limited capability, evolutionarily built, whereas feeling, in turn, is oriented to the future, as it implies the continuity of individuality and intimacy of the one who feels what is felt. Antonio Damasio, *The Feeling of What Happens*: *body and emotion in the making of consciousness* (London: Vintage, 2000).

(new) possibilities, actions, conclusions. The emotional datum seems to rest at the very turning point between the certainty of the norm (of regularity) and the uncertainty generated by contradicting it.

The impulse towards asymmetry is, accordingly, for the most part directed to the future, as it is more elaborated rhythmically than the opposite impulse to symmetry: it is differential, irregular, deregulatory. Symmetry and asymmetry are opposite rhythmical tendencies observable, for example, between the contrasting impressions delivered by a piece played *a tempo* or in *tempo rubato.* Actually, any direct opposition between regularity and irregularity in music would be alike: between a straight or arch-like melodic line and a pointillist effect; or between the inner acoustic regularity of the perfect chord and the acoustic unbalance of the diminished one, etc.

We have symmetry and memory expressed in terms of regular features; then again, we have asymmetry and imagination in terms of irregular features created, as it were, in potentially infinite interconnected plateaus of complexity on the grounds of regularity. We order disorder by construing a causal line we ourselves can be part of; we come of age along this line by disrupting it and making it evolve and change.

As in a cycle, we breed order from disorder to assimilate, to *accommodate,* to integrate ourselves into our vital impressions, but we also engender disorder out of order so that we grow up by defying the conformity of an established rule. However, the second disorder is different in kind, because it is, of necessity, always *placed after* our integration: we always *make it* regular in order to experience it from inside, from a subjective point of view. We might perceive all these things in music, even at the surface of a musical work; everywhere, from tonal cadential principles to the dodecaphonic series, from Palestrinian counterpoint to Messiaen's modes of limited transposition. But what is most important is that these matters altogether seem to bestow sense on the whole process of composing music.

That is why I argue that asymmetries also oppose symmetries by 'individualising', 'personalising' them at a relatively deeper — and in some sense a slower, more conscious level — within a zone of lesser embodiment that raises one's level of awareness but still in an unbridled, garbled way, an awareness that undulates between the mechanicalness of reactive impulses and the relative freedom of superior capacities of greater reflective, analytical power.

The impulse towards balance and unbalance balance

In seeking a similar orientation, the impulse towards balance (oriented by a deep memory quality) represents a response time tied, so to say, to the *focusing* of both memory and imagination at determinate subjective coherence lines — *which seems to be, precisely, that that Schoenberg usually calls musical idea*. It is connected to the equalisation of past-like and future-like impulses, and in this vein is foremostly oriented towards 'analytical pat-

terns', as it were, that is, oriented to the regularisation and normalisation of both symmetric and asymmetric impulses.

I argue that this temporality always aims, dialectically, at a balance between rhythmical regularities and irregularities, between symmetries and asymmetries, in searching for their most meaningful intercession. For this reason, it works at a deeper, slower, somewhat less embodied and more conscious level. Deepness means in this case a smaller sedimentation and, therefore, a greater fluidity of memory that bestows this temporality a mediating, integrating capacity. All in all, the impulse towards balance is dominated by the same need of efficiency and regularity previously suggested about the impulse towards symmetry. It differs, however, in that a shallow-memory impulse seems to be totally gripped temporally by the stimulus, whereas the deep-memory one seems to be marked by several steps of temporal complexity, of memory depth, of which the stimulus is the least important.

Following Bergson on this, it is enough to compare the mechanical process of memorising a text with that of rationalising and understanding its content.[4] Although both processes are notoriously replicative, the mechanic memorisation depends on exact word sequences; it depends on linear actions, images and on anchoring this sequence into determined 'temporal triggers'. Understanding, rationalising, on the other hand, has multiple entrances as it searches for the concept and the generalization beyond the order, to the extent that in its best effort of temporal condensation it empties symmetries and asymmetries of their particular (regular and irregular) qualities, favouring generic regulating principles applicable in analogies. In doing this, it looks for a common fact, or for a group of common facts, in order to take them as elements for generalisations. It is thus fully articulative and ordering, and directed to unifying factors, homogeneity, and economy, so that it points to a complex and continuous rhythmic synthesis of past and future.

Lastly, the impulse towards unbalance (oriented by a deep imagination quality)represents a response time related to the *diversion* of memory and imagination around general lines of non-coherence (and consequently to the promotion of the present time over the past and future ones). It seeks 'heterogeneous syntheses' that take irregularity as principle, that is, the destabilising of the normalisation and articulation that are effected by the impulse towards balance. It is so more concerned with continuity than with musical articulation. It thus favours the conception of 'zones of unbalance ', and acts in a destabilising manner: destabilising the balance between rhythmical regularities and irregularities and promoting temporal disjunctions or disintegrations.

This temporality is thus enacted in a movement of (in)equalisation, being therefore governed by the same need of liberation and affirmation experienced under the influence of the impulse towards asymmetry, although exercising this need in a dialectical way. It is

[4] Bergson, *Matter and Memory*, 156.

my suggestion that this temporality always looks for uncommon features in order to make them elements of a superior process of particularisation, directed towards difference and heterogeneity. It denies the economy of meaning promoted by well-balanced rhythmical designs and represents, in this sense, a process of dispersal of the experience of regularity and irregularity that would grant the work of deep imagination a general sense of temporal amplitude, and points, in this manner, to a complex and continuous synthesis of the present.

The second rhythmicalization process

Considering this complex middle-ground rhythmical configuration, I introductorily propose two groups of secondary rhythmic ideas; a group in a sense more closely related to the rhythmical elaboration of symmetric and asymmetric temporalities, specially (though not necessarily) in the compositional context of musical microforms; and a group more closely related to the rhythmical elaboration of balanced and unbalanced temporalities, specially (and also not necessarily) in the compositional context of musical macroforms. (see Fig. a1.1):

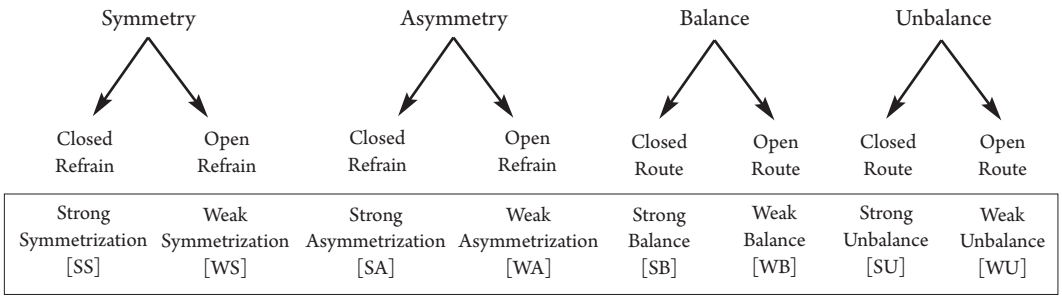


Figure a1.1: second level rhythmic ideas emerge from the rhythmicalisation of intermediate temporal impulses, under the influence of grounding temporal rhythmic ideas.

Now, considering, for example, in first place the rhythmicalization effected between the temporality marked by the impulse towards symmetry (oriented by a Shallow Memory, [SM]) and primary rhythmic ideas that are past-oriented (those of Closed Refrain, [CRe], and of Open Refrain, [ORe]), it is my suggestion that an important rhythmical distinction exists, that is, that [SM] resonates [CRe] and [ORe] in two different manners: in the first case, it promotes the emergence of 'strong symmetrizations', that fix the exactness of rhythmical regularity — exactness is desired —; whereas, in the second case, it promotes the emergence of 'weak symmetrizations', that enforce a 'mobile' rhythmic regularity — exactness is problematized.

All this complex rhythmic scenario stands for a tremendous source of temporal creativity, as it expands and contracts forms of remembrance and of forgetfulness, forms of pretence — of imaginative intellectual play — and abandonment. In short, by means of these notions, it is possible to point in a more precise way to a broad rhythmical spectrum, from complete musical determinism up to almost complete musical unpredictability.

Short examples

The following short examples are based on the general chart above, (Fig. a1.1). They work as an introductory demonstration of how those second level rhythmicalization operations may be compositionally designed at a more superficial, foreground creative level.

Hence, according to that general chart:

The rhythmic idea of *Strong Symmetrization*, [SS], results from the rhythmical interplay of the impulse towards symmetry, [SM], with the rhythmic idea of Closed Refrain, [CRe]. This rhythmicalization concerns, therefore, a strong bond between the compositional processes of characterization and routinization, promoted by [CRe] and the impulse towards symmetry and regularity. It thus implies the thematisation of regularity, of proportional designs, (see also appendix 2).

In general, the rhythmic idea of Strong Symmetrization emphasises the regular up-keeping of the past and the building of a present moment by recourse to this maintenance. It is permeated by comprehensive rules of regularity projected on the general sense of conservation and routinization that frequently characterises musical thematicism.

These aspects are observable, for example, in Mozart's youthful piano piece, *Allegro*, KV 3 (1762), specially in the obviousness of its pulse architecture, which is fully regular and proportional, and in it reflecting the proportionality of its thematic distribution and the length of its phrases and semi-phrases, etc. Another example, in this same vein, but from the Baroque repertoire, is the pulse regularity in Bach's *The Well-Tempered Clavier* (1722), BWV 847, "Praeludium 2". In this piece, the regular presentation of melodic and harmonic rhythmic patterns provides for a general sense of temporal stability, grounded by a strong dramaticism. It presents an ample thematic processing, particularly that of the hybrid harmonic-melodic initial rhythmic element, upon which the becoming of the piece is based. We find here a musical gesture that is strongly personified, characterised by a symmetric attitude, that endures by facing always itself, by mirroring itself in exact ways, always illuminated by the subtlety of different harmonic and melodic colours. All in all, we find here the effect delivered by the rhythmic idea of Closed Refrain, [CRe], being multiplied by means of symmetric rhythmic operations. Furthermore, we also observe a temporal influx of high recursiveness, nurtured not only by the quasi-machinal processing of pulsation, but also by the fluency of many melodic symmetries polyphonically built between upper and lower voices: we actually observe the complementary action of two strong regularities, a regular sequentiality and a regular simultaneity.

The applied compositional example bellow, (Fig. a1.2) is oriented by the rhythmic idea of Strong Symmetrization, in which the rhythmic values of a series [Po] are systematically mirrored in alternation between higher and lower registers, in simultaneity with other two regular compositional operations involving its inverted retrograde transposition [RI6], firstly by thematic imitation, and then by means of regular harmonic pulsation. In

this example, the deliberate projection of regularity of alternation in the presentation of the series [Po], which is itself a strong impulse of routinization, is subtle but still representative of the rhythmic idea of Strong Symmetrization. This is an important aspect of the rhythmicalization of any musical idea: its effect may be sensed in different intensities and at different levels of structural complexity, and operate eventually only in a compositional background. On the other hand, the simple symmetric design of the presentation of the chords [RI6], from measure five onwards, is also directly influenced by this rhythmic idea in the sense that all chords occupy a same metrical position, and present a same internal distribution.

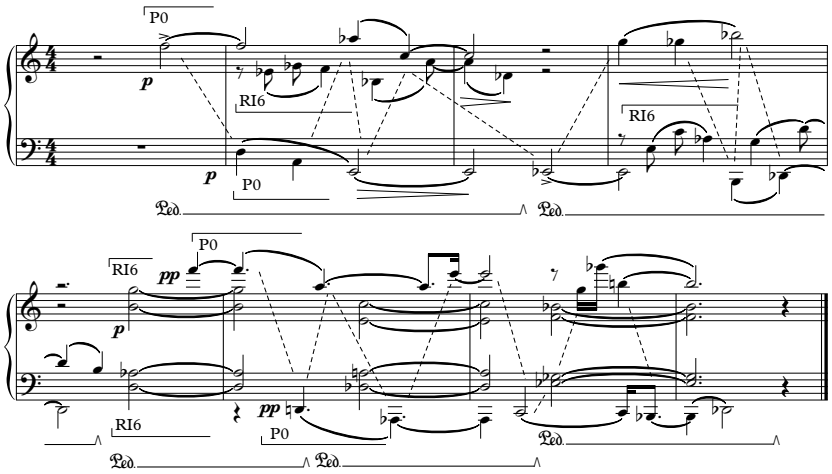


Figure a1.2: Compositional example oriented by the rhythmic idea of *Strong Symmetrization*.

The formal mirroring of the melodic motif in the first part of the composition, just mentioned, also demonstrates the same principle, which in this example is projected on the basic shape of counterpoint, on harmonic rhythm and colour, on melodic shape and metric pattern. In this vein, it is now possible to infer about the double temporal constitution inscribed in any rhythmical complexity. On the one hand, in the perspective of its fundamental time, this example communicates determinability (movement) and a strong fusion of characterization and routinization (dramatic past and future); on the other hand, now in the perspective of an intermediate temporal complexity, that is, of its temporality, it communicates symmetry, regularity and, recalling for a moment Bergson's lectures on repetition, 'the composition of habit'.[5]

The rhythmic idea of *Weak Symmetrization*, [WS], results from another rhythmical interplay, which also entails an impulse towards symmetry, [SM], but now in relation to the rhythmic idea of Open Refrain, [ORe], which is lyrical and temporally expansive. In

[5] Because "we are right when we say that habit is formed by the repetition of an effort; but what would be the use of repeating it, if the result were always to reproduce the same thing? The true effect of repetition is to decompose and then to recompose, and thus appeal to the intelligence of the body." Bergson, *Matter and Memory*, 111.

other words, while in a deeper compositional level lyricalness works in order to amplify the past — that is, while either the figure (or gesture) becomes lyrical by means of operations of thematic expansion, or there is no figure at all —, this refusal is now restricted to rather occasional relations, to the positivity of evanescent memories that stamp the composition with a 'mobile' rhythmical regularity, (see also appendix 2).

The deeper expansive temporal force projected by [ORe] is now controlled, delimited at the surface by a symmetric impulse. In the perspective of this particular rhythmical interplay, we may now contemplate the conjoining of a tendency for thematic expansion with a tendency for symmetric dominance, in which the rhythmical fluency of the changing thematic element that is not a free one but obeys to a gradual, sometimes almost imperceptible, variation. In consequence, this rhythmic idea involves a 'suggestion of symmetry', an 'a-thematisation of regularity'.

The formal organisation of traditional minimalistic, phase music, comes to mind. A case to the point is Steve Reich's *Piano Phase* (1967), which renders a sort of 'loose' regularity, a loose symmetry, as it progresses rhythmically in between a more profound sense of thematic annihilation, of nullification of the figure, of the identity of the musical element, and an urgent drive for regularity that constantly breaks loose from confinement. All in all, although constricted, this rhythmic idea operates in a lyrical way. Here the instinctive up-keeping of pulsation, still present, is more open to variations, accepting a certain amount of mobility and, consequently, defying recognition: in this context, a general sense of vagueness is achieved by reiterative nuances which are constantly led to forget past references (of regularity).

Next, I present an applied compositional example oriented by the rhythmic idea of Weak Symmetrization, (Fig. a1.3), in which recursive designs are manipulated by means of slight rhythmic expansions and contractions of a pedal note within irrational rhythmic groups. A same rhythmical gesture is systematically repeated, almost but not in the same way. Additionally, a new layer of temporal expansion is added by means of slight changes of pace at each measure.

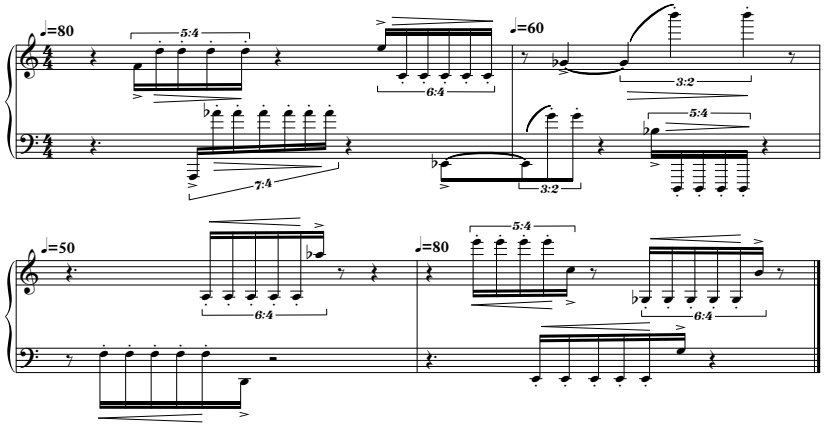


Figure a1.3: Compositional example oriented by the rhythmic idea of *Weak Symmetrization*.

The whole rhythmical design is kept almost unchanged, even though changing indeed. One may also observe the manifestation of this same principle of mobile symmetrization reflected as well in the use of thematic retrogradations between the upper and bottom voices, and in the use of rhythmical elaboration by means of proportional multiplication.

The rhythmic idea of *Strong Asymmetrization*, [SA], results, differently, from the rhythmicalization of the impulse towards asymmetry, [SI], marked by a strong sense of de-mechanisation and de-routinisation, and the rhythmic idea of Close Refrain, [CRe], which is dramatic, determinative. This rhythmicalization is thus permeated by a constant compositional projection of irregularities on musical substance, by a sort of *routine-irregularity* that is taken as a fixed rule of asymmetry, (see also appendix 2).

Instances of the influence of this rhythmic idea are to be found in the formal organisation of some serial music, such as in Messiaen's *Mode de Valeurs et d'Intensités* (1949), in which it is observed a 'designed irregularity', which is comprehensive, aesthetically controlled, and often acts like a broken, unstable rhythmical machine. Moreover, rhythmically conditioned in such manner, the variation of musical substance in this piece is constantly projected as shifting trajectories and not as fixed images, as 'patterns of curvatures' or arches of irregularity, that are projected towards the future, not into the past. Another example in the context of atonal music is the foreground rhythmic irregularity perceived in works such as Schoenberg´s *Pierrot Lunaire, opus 11, nº. 9* (1912), which may be seen as resulting from a particular type of distribution of accentuation in independent pulse streams,[6] which, in turn, would fluctuate independently, dissipating and condensing, so to generate blurred textural changes.

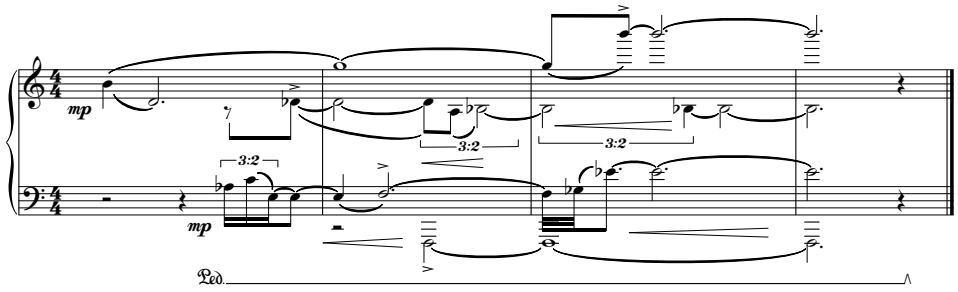


Figure a1.4: Compositional example oriented by the rhythmic idea of *Strong Asymmetrization*.

In the example above, (Fig. a1.4), the rhythmic idea of Strong Asymmetrization is seen projected in a short cadence, in which all rhythmic groups are systematically varied and no instance of actual repetition is observed.

[6] John Roeder holds that "rhythmic organisation in much of Schoenberg's music extends and even transcends common metrical practice. Innovation is evident especially in his middle-period works where the texture is highly polyphonic and the often canonical voices are saturated with a few distinct motives. Although regular pulses are fleetingly evident in these works, the surface rhythms change rapidly and irregularly." See John Roeder, "Interacting Pulse Streams in Schoenberg's Atonal Polyphony", *Music Theory Spectrum* 16, no. 2 (1994): 233.

The rhythmic idea of *Weak Asymmetrization*, [WA], also involves an impulse towards asymmetry, marked by of a strong sense of de-mechanisation and de-routinisation, but in the perspective of its rhythmicalization by the rhythmic idea of Open Refrain, [ORe], lyrical and non determinative; a rhythmicalization permeated by the compositional projection of 'mobile irregularities' on musical substance, a sort of complex 'anti-routine-irregularity' that a-thematises well established applied rules of irregularity, (see also appendix 2).

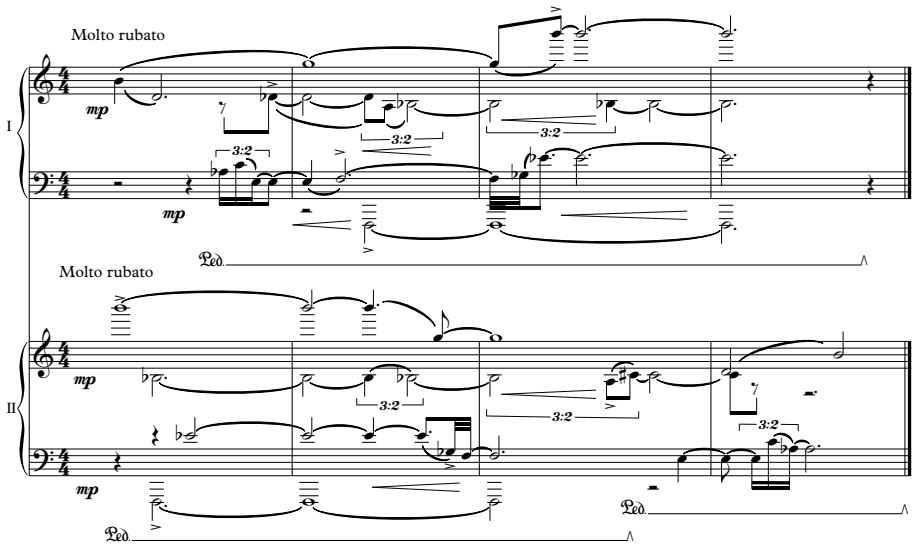


Figure a1.5: Compositional example oriented by the rhythmic idea of *Weak Asymmetrization*.

The example above, (Fig. a1.5), based on the previous one, is oriented by the rhythmic idea of Weak Asymmetrization. In it, the asymmetric shape of the cadence becomes 'mobile', so to say, by means of the simultaneous presentation of its retrograde version.

We observe the influence of this rhythmic idea in the formal organisation of pieces like Berio's *Sequenza III* (1965), which is permeated by a sort of loose, 'mobile irregularity', by an unfettered asymmetry, which preserves the general changing orientation of the compositional process, though constantly reorienting the temporal flux of the piece by means of open variations. This aspect is observed in the formal, chronometric distribution of the irregular rhythmic impulses that form the piece. There we observe the unfolding of a general differentiative lyrical temporal influx, marked by a constant rhythmical rotation of diverse musical gestures and the consequent intensification of the often future-bound characteristics that result from a systematic approach to rhythmical irregularity. The influence of this rhythmic idea is also observed in a number of pieces of electronic music, such as Stockhausen's *Gesang der Jünglinge* (1956). In the context of European works of the fifties, this piece opened the path to a whole new metric formulation in which harmony and melody are utterly merged metrically, not figuratively, nominally or symbolically, but essentially. In it, many distinct spectral zones borrow their internal organisation from an integrative serial design, and every aspect of the composition is treated,

developed and varied serially as time. The compositional process evolves directly from the material, and is, more than ever before, fundamentally lyrical, malleable, and "can, without restrictions, undergo a whole series of transformations, and this independently of its starting nature".[7]

The rhythmic idea of *Strong Balance,* [SB], entails a strong impulse towards balance. Balance that is a sort of referential temporal horizon among diverse rhythmical senses delivered by other intermediate rhythmic ideas, for example, between the rhythmic ideas of Strong and Weak Symmetrization, [SS-WS], Strong and Weak Asymmetrization, [SA-WA], Strong Symmetrization and Strong Asymmetrization, [SS-SA], etc., (see also appendix 2).

It works influenced by a deep-memory impulse regulating these other senses, subjecting them to a sort of 'controlling, determinate, contracting balance principle', in which the notion of balance is imperative and comprehensive. It thus stands as a 'dramatic balance-axis', deeply influenced by the rhythmic idea of Closed Route [CRo].

The influence of this rhythmic idea may be seen, for example, in the formal organisation commonly established by means of axial harmonic displacements in tonal music such as, to give an example, in Tchaikovsky's *Morgengebet, aus album für die Jungend* (1878), which is symmetrically organised in three musical sentences, of eight measures each. The first phrase of the first section presents a half close, achieved through the secondary harmonic degrees. The debut tonality, G major, is therefore expanded through a B major chord, and the second phrase of the first section increases this tonal expansion by means of four chromatic modulations. The next section (mm. 9-16) keeps the intense modulatory movement of the previous phrase, however in a more subtle way. The middle of this section, which is also the point of symmetry of the entire piece, is marked by a dynamic climax that adjoins two chords under an axial relationship: C major chord (ms. 11) and F# major sixth chord (ms. 12). The third section presents a descending motif, repeated twice sequentially. This is the most stable section of the entire piece. Out of its eight measures, mostly in G major, only one measure modulates to D minor (ms. 21) — put in effect by altering the four-three chord of the 4th degree —, to return immediately to the main tonality. In this section, Tchaikovsky also uses altered chords without the aim of modulating though (for coloristic purpose only, ms. 17 and 19). All in all, we observe a well balanced tonal arch that expands and contracts tonally by means of chromatic modulations. This balance is the main compositional feature of the piece, which progresses further in terms of harmonic displacement though never being totally free from the temporal horizon established by the initial tonality and actually represented by the G pedal in the last measures: the whole irregular harmonic progression becomes, at last, regular by means of a

[7] Pascal Decroupet, Elena Ungeheuer and Jerome Kohl Source, "Through the Sensory Looking-Glass: the Aesthetic and Serial Foundations of *Gesang der Jünglinge*," in *Perspectives of New Music* 36, No. 1 (Winter, 1998), 97.

rational creative force that attracts both regularity and irregularity in order to promote their temporal synthesis, a synthesis of tonal stability and instability, represented by the simultaneous presentation of the G pedal and the large melodic arch performed by the right hand.

The next example is oriented by the rhythmic idea of Strong Balance, in which two sections oriented, respectively, by the rhythmic ideas of Weak [section A] and Strong [section B] Symmetrization alternate, (Fig. a1.6).

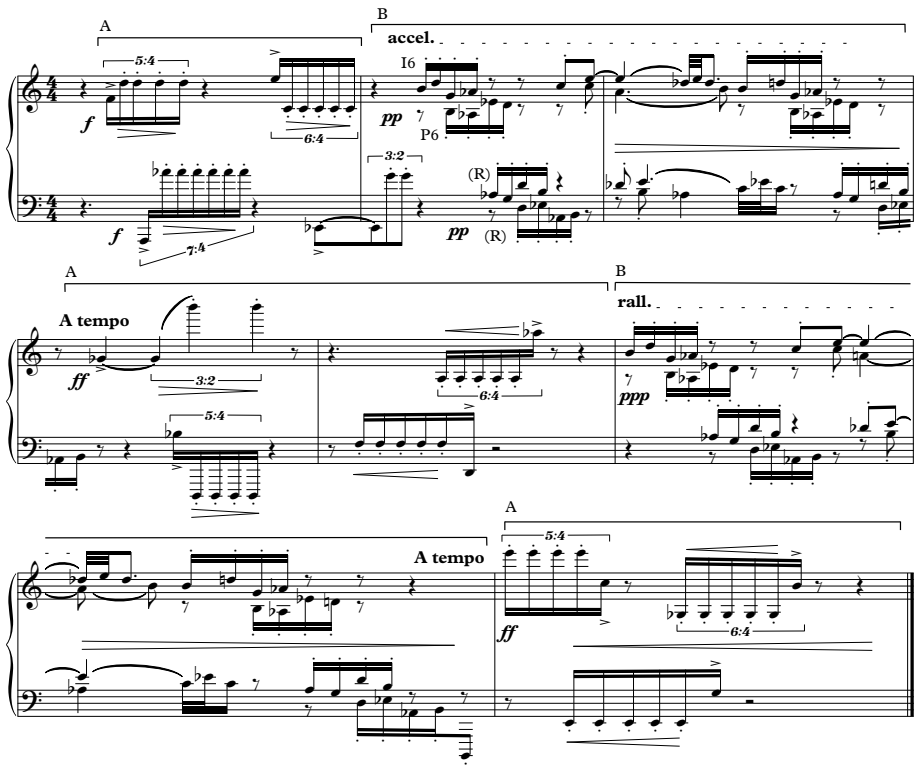


Figure a1.6: Compositional example oriented by the rhythmic idea of *Strong Balance*.

Section [A] is based on the same design presented in the Fig. a1.3, in which a same gesture is manipulated by means of additive and subtractive variations. Section [B] is based otherwise on the same principle presented in the Fig. a1.2, though in a more defined way, by means of canonic operations. The systematic alternation of these two sections imposes a sort of two-folded gravitational centre informed by the dialectical relation which is established by means of their repetition. Of course even though not appealing, from a compositional point of view, the technical recourse of sectional alternation is enough to contextualise the general argument on temporal balance here suggested. One may easily picture a lot of other levels of compositional complexity involving the same principle, either homophonically or polyphonically, local or distal, projected on pitch sets or timbre sets, or on the general organization of rhythm and meter, etc.

Other higher formulas of rhythmical organization are henceforth proposed, in a sense

mirroring the previous ones. They are: the rhythmic idea of *Weak Balance*, [WB], the rhythmic idea of *Strong Unbalance*, [SU], and the rhythmic idea of *Weak Unbalance*, [WU]. These are rhythmical ideas of extreme formal 'volatility', most of them usually involving chance or extremely complex formal operations.

The rhythmic idea of *Weak Balance*, [WB], entails an impulse towards balance also, done by a deep-memory quality, which works, however, in this case, as a sort of 'loose referential temporal horizon' between other rhythmical senses. It works subjecting these other senses to a sort of 'liberating, non determinate, expanding balance principle', in which the notion of balance is diffuse and sometimes blurred, dispersive. It thus stands as an 'lyrical balance-axis', rooted on the rhythmic idea of Open Route, [ORo].

The influence of the rhythmic idea may be seen in musical pieces based on 'variable-forms' like, for example, Stockhausen's *Klavierstücke X* (1954), which explores cluster chords and cluster glissandi in many layers of temporal and rhythmical instability, organised according to a rule of instability, a balance-axis of changing processes. In large part, the compositional process of this piece is taken by a general lyrical rule of balance, as mentioned: a 'mobile balance' of mobile systems, which are statistically grouped instead of dialectically arranged. The general impression is that of a fluid, richly expressive evolution of changing forms and processes, which are integrated by the systematic compositional (in this case, statistical) work on many musical dimensions.

The rhythmic idea of *Strong Unbalance*, [SU], entails otherwise a strong impulse towards unbalance, by a deep imagination, which works destabilising the referential temporal horizons that eventually were established between other intermediate rhythmical senses. It behaves actually as a kind of anti-horizon that deregulates, subjecting these other senses to a sort of 'controlling, determinate, contracting unbalance principle', in which the notion of formal unbalance is paramount. It thus stands as a 'dramatic unbalance-axis', rooted on the rhythmic idea of Closed Route, [CRo].

This negative referential horizon is found in many formative processes of music such as, for example, the roving harmonies of expressionist music, or in the formal organisation of early dodecaphonic music, such as in Schoenberg's *Suite, Opus 25* (1923), in which the folding principle of melodic and harmonic features is in itself fundamentally linked to this sort of unbalance-axis. There is *a sameness*, a 'thematic source', which is constantly redone by the series in relation to its multiple possible subsets; a same set that evolves temporally in its diverse transpositions and inversions. This process however, which is composed by routine reiteration and evolution, does not follow a common synthetic rule, but is actually subtracted and substituted by a negative referential horizon, by the *territory* of the series, a *fluid field*, as it were, that reaches both the constant recurrence of the series and its constant transformation.

The rhythmic idea of *Weak Unbalance*, [WU], also entails an impulse towards unbalance, which works, however, in this case, as a sort of 'prominent non-referential temporal hori-

zon' between other rhythmical senses. It works as a kind of anti-horizon that deregulates, subjecting these other senses to a sort of 'liberating, non determinate, expanding unbalance principle', in which the notion of unbalance is completely pervasive. It thus stands as an 'lyrical unbalance-axis', rooted on the rhythmic idea of Open Route, [ORo]. This sort of 'negative mobile' referential horizon, which subjects those rhythmical senses to a sort of differential type of temporal activation, happens thus mostly by chance operations. So, the lyrical rhythmical functionalization promoted by this rhythmic idea results in a maximal degree of compositional mobility.

There is evidence of this notion in the compositional techniques employed, for example, in electroacoustic music (granular re-synthesis comes to mind) or in stochastic and spectral music, music genres that easily accept a certain degree of unpredictability; all in all, it relates to compositional processes that usually proceed by a temporal unfolding of their materials in resultants of resultants. Influence of this notion may be found, for example, in Ligeti's *Artikulation* (1958), which consists of various types of sounds in conditions of aggregation, joining serial, empirical and aleatoric compositional strategies, along with technology such as sine waves, white noises, impulse generators, and filters. The unbalanced-axis in this case is clearly the systematic selection by chance used by Ligeti, which works as a 'mobile intersection' among many genetic levels. The 'serial entropy' of *Artikulations* is systematically unbalanced, as the intersection of its many possible levels of temporal significance (sounds, words, texts, etc.) is never perfectly determined. Thus chance works here thus as a mobile line of reference that coordinates manifold rotations of the series of sound matters.

Appendix 2

Flegetonte (2018) for Flute, Clarinet, Viola and Vibraphone

Compositional annotations on rhythmic ideas, analytical and ensemble scores

FLEGETONTE (2018), FOR FLUTE, CLARINET, VIOLA AND VIBRAPHONE

This piece was originally composed in 2017, as a number in the ballet *Águas do Éden e do Hades* (Waters of the Eden and the Hades), premiered in 27 May of that same year, by the Brazilian contemporary music ensemble *Nova Camerata*.

This is a short, applied analytical version of the piece, which was in many ways condensed to be used in support of the general discussion on the rhythmic idea and the musical representation of time. Many rhythmic ideas are contextually indicated in the score and listed below, among other compositional annotations and observations.

I - General aspects

In Greek mythology, the river *Phlegethon* (Φλεγέθων, "flaming") was one of the five rivers in the infernal regions of the underworld, along with the rivers Styx, Lethe, Cocytus, and Acheron; described by Plato as "a stream of fire, which flows into the depths of Tartarus."

The composition explores this 'fire-flaming' aspect in an almost descriptive way, mainly by means of the superposition of diverse 'axial ornamentation' sets of an original series [P0] and of its transposed inversion [I6] and transposed retrograde [R6] versions. I employs diverse techniques of variation, chiefly by thematic compressions and expansions, and a systematic use of melodic interpolations and polyphonic densifications.

The version of *Flegetonte* here presented is composed by four main sections:

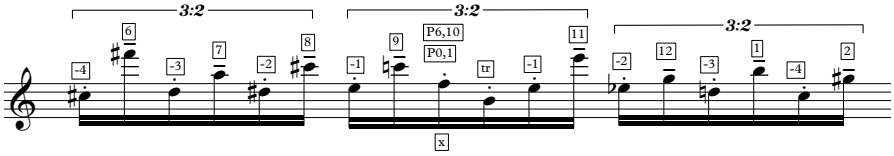
Part A - exposition (mm.1—mm.14)
Part B - interlude (mm.15—mm.21)
Part C - *stretto* (mm.22—mm.27)
Part D - variation (mm.28—mm.41)

In general, the piece is dominated by a steady and expressive melody, presented in the viola, which is polyphonically accompanied by many instances of 'flames', that is, short and large axial ornamentations of the series [5, 2, 9, 8, 4, 0, 3, 7, 6, 11, 10, 1]. The piece generally explores the interpolation of [P0], [I6] and [RI6] series with neutral, symmetric sets, like the chromatic scale, the whole-tone scale, the diminished seventh chord, and in some instances also of major and minor triads. Part A is systematically controlled by many thematic manipulations. Part B is a short interlude that explores variable and mass composition. Part C is a short imitative *stretto* based on some thematic forms presented in part A. And part D is very open to variations and less controlled, both in terms of melodic and harmonic composition.

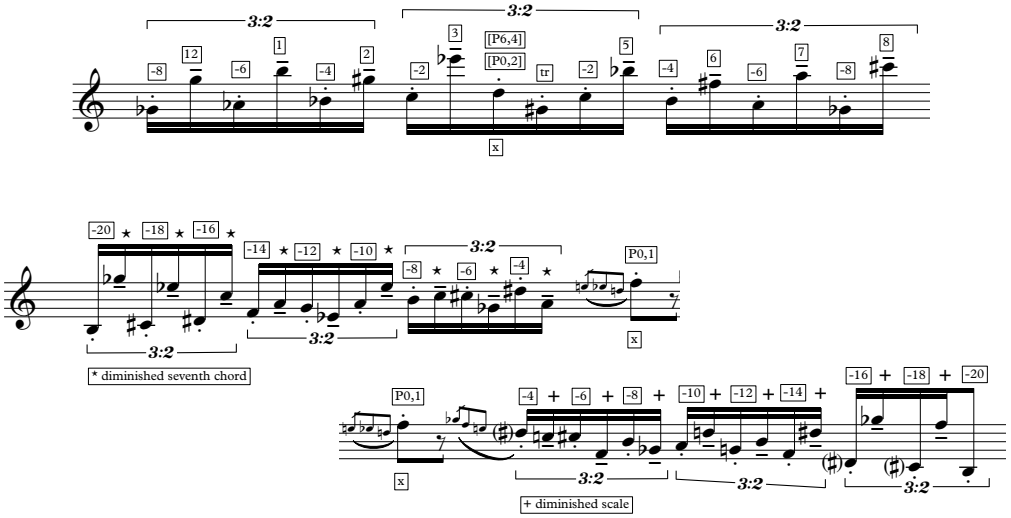
Plato, *Phaedo*, 112e ff., tr. Harold North Fowler.

II - Main compositional technique - axial ornamentation and serial interpolation

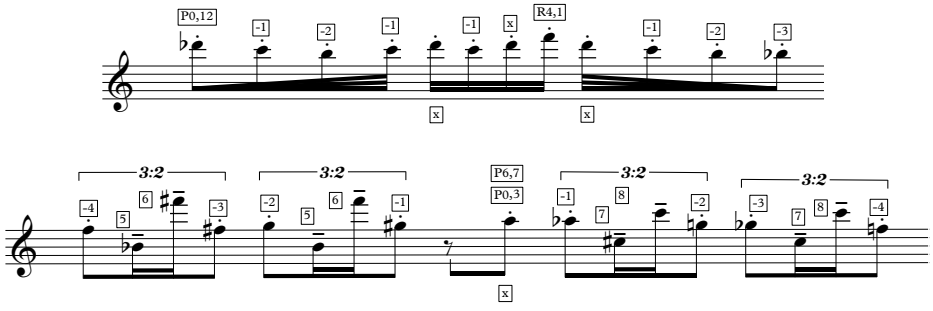
Axial ornamentations of descriptive character (*flames*) are oriented by the series in this way:



In the example above, [P0,1] — prime form, first note — is treated as a referential point [x] for two symmetric and interpolated axial operations: (i) as a fixed middle point of a chromatic scale [-4, -3, -2, -1, x, -1, -2, -3, -4], and (ii) as a mobile middle section of [P6], in this case as [P6,10]. In the example below, the same technique is applied, but from [P0,2] and with the interpolation of the whole-tone scale. Similar operations are freely devised across the piece, exploring other combinations, as for instance the ornamental blending of the series with diminished seventh chords or diminished scales, or yet with major and minor triads.



Other middle ground variational operations involve the alternation of linear and non-linear (or undulatory, wavy) melodic shapes of diverse amplitudes, always developing the 'flame' character:



III - Analytical score

Flegetonte explores the polyphonic superposition of dramatic and lyrical rhythmic ideas. A description of main temporal nuances involved in the composition of the piece is presented as follows, next to an analytical score, always in reference to the arguments raised previously, on the temporal complexity of the musical idea and its rhythmicalization process.

Summary of main thematic-figural elements (whole piece):

Motive 1, [M1]: *note pedal.*
mm.1, fl.; mm.2, fl.; mm.3, cl.; mm.6, fl.; mm.7, cl.; mm.8, vla.; mm.9, cl.; mm.11, fl.; mm.11, cl.; mm.14, cl.; cl.; mm.23, cl.; mm.24, vla.; mm.24, fl.; mm.24, cl.; mm.26, cl.; mm.27, cl.; mm.28, fl.; mm.29, vib.; mm.30, cl.; mm.31, fl.; mm.34, cl.; mm.35, vla.; mm.36, cl.; mm.38, fl.; mm.38, cl.; mm.41, cl.

Motive 2, [M2]: *axial 'wavy' melodic chromatic sequence + serial leap note from [R4] series.*
mm.1, cl.; mm.2, fl.; mm.3, cl.; mm.4, fl.; mm.5, cl.; mm.6, fl.; mm.8, cl.; mm.9, fl.; mm.10, cl.; mm.11, fl.; mm.12, cl.; mm.13, fl.

Motive 3, [M3]: *axial ornamentation and interpolation based on [Po].*
mm.1, fl.; mm.2, cl.; mm.3, fl.; mm.4, cl.; mm.5, fl.; mm.6, cl.; mm.7, cl.; mm.7, fl.; mm.8, fl.; mm.9, cl.; mm.10, fl.; mm.11, cl.; mm.12, fl.; mm.13, cl.; mm. 14. fl.; mm.14, cl.; mm.24, cl.; mm.25, vla.; mm.25, fl.;mm.39, fl.; mm.40, cl.; mm.41, fl.

Motive 4, [M4]: *axial ornamentation and interpolation based on [P6] and [I6].*
mm.1, fl.; mm.2, cl.; mm.3, fl.; mm.4, cl.; mm.5, fl.; mm.6, cl.; mm.8, fl.; mm.9, cl.; mm.28, fl.; mm.29, cl.; mm.30, fl.; mm.31, cl.; mm.32, fl.; mm.33, cl.; mm.34, cl.; mm.34, cl.; mm.35, fl.; mm.36, cl.; mm.37, fl.; mm.38, cl.

Motive 5, [M5]: *rhythmic cell/figure.*
mm.3, fl.; mm.12, vla.; mm.22, vla.; mm.23, fl.; mm.23, vla.; mm.24, fl.; mm.24, cl.; mm.25, vla.; mm.25, cl.; mm.26, vla.; mm.25, fl.; mm.27, fl.; mm.27, vla.; mm.39, vla.

Motive 6, [M6]: *melodic chromatic pattern.*
mm.29, fl.; mm.30, cl.; mm.32, cl.; mm.32, vla.; mm.35, cl.; mm.37, cl.; mm.38, fl.; mm.39, vib.; mm.26, vla.; mm.25, fl.; mm.27, fl.; mm.27, vla.; mm.39, vla.

Summary of main rhythmic ideas (part A and B)

[CRe]: Closed Refrain, [CRo]: Closed Route
[ORe]: Open Refrain, [ORo]: Open Route
[SS]: Strong Symmetrization, [WS]: Weak Symmetrization
[SA]: Strong Asymmetrization, [WA]: Weak Asymmetrization
[SB]: Strong Balance, [WB]: Weak Balance
[SU]: Strong Unbalance, [WU]: Weak Unbalance

[CRe]:

[M1] entrance, flute, mm.1
[M4]+[M3] entrance, flute, mm.1
[M2] entrance, clarinet, mm.1
Timbral effect entrance, [t1], viola, mm.1
Appoggiatura entrance, [ap], viola, mm.1
Repetition of timbral effect, [t1], viola, mm.1
Scale section, [s], viola, mm.1
Contracted repetition of [M1], flute, mm.2
Repetition of [M2], flute, mm.2
Repetition of [M3]+[M4], clarinet, mm.2
Repetition of timbral effect, [t1], viola, mm.2
Repetition of appoggiatura, [ap], viola, mm.2
Repetition of timbral effect, [t1], viola, mm.2
Timbral effect entrance [t2], clarinet, mm.2
Repetition of timbral effect, [t2], flute, mm.3
Repetition of [M1], clarinet, mm.3
Interval pedal, [P0, 1-2], viola, mm.3
Repetition of timbral effect, [t2], viola, mm.3
Repetition of thematic variation on [M3]+[M4], clarinet, mm.4 - {M5}
Repetition of timbral effect, [t2], clarinet, mm.5
Repetition of timbral effect, [t2], flute, mm.6
Repetition of thematic variation on [M3]+[M4], clarinet, mm.6
Repetition of [M1], flute, mm.6
Repetition of [M1], clarinet, mm.7
Repetition of appoggiatura, [ap], viola, mm.7
Repetition of timbral effect, [t1], viola, mm.7
Repetition of appoggiatura, [ap], clarinet, mm.7
Repetition of scale section, [s], clarinet, mm.7
Repetition of timbral effect, [t2], clarinet, mm.8
Repetition of thematic variation on [M2], clarinet, mm.8
Repetition of [M1], clarinet, mm.9
Repetition of thematic variation, contraction of complexity, [M3]+[M4], clarinet, mm.9
Repetition of timbral effect, [t2], flute, mm.10
Repetition of interval pedal, [P0, 1-2], viola, mm.10
Repetition of [M1], flute, mm.11
Repetition of thematic variation, expansion of articulation, [M3], clarinet, mm.11
Repetition of [M1], clarinet, mm.11
Repetition of thematic variation, contraction of variety, [M2], clarinet, mm.12
Reinforcement of [M5] as main melody, viola, mm.12
Repetition of thematic variation, expansion of length, [M3], clarinet, mm.13

Repetition of timbral effect [t1] and appoggiatura [ap], viola, mm.13
Repetition of thematic variation, expansion of articulation, [M3], flute, mm.14
Repetition of [M1], clarinet, mm.14
Repetition of timbral effect, [t2], viola, mm.14

[CRo]:

Maintenance of the rule of alternate imitation between fl. and cl., whole section A
Final cadence of section B

[ORe]:

Cross-spectra resonance, [vibrato, vla.]-[M2, cl.], mm.1
Thematic variation, expansion of melodic shape, [M3]+[M4], flute, mm.3 - {M5}
Thematic variation, contraction of length, [M2], flute, mm.3
Thematic variation, expansion of length, [M2], flute, mm.4
Thematic variation, expansion of length, [M3]+[M4], flute, mm.5
Thematic variation, contraction by repetition, [M2], clarinet, mm.5
Thematic variation, contraction of length, [M2], flute, mm.6
Thematic variation, contraction of complexity, [M2], clarinet, mm.7
Thematic variation, expansion of complexity, [M2], flute, mm.7
Thematic variation, contraction of complexity, [M3]+[M4], flute, mm.8
Varied repetition of [M1] as main melody, viola, mm.8
Thematic variation, expansion of variety, [M2], flute, mm.9
Thematic variation, expansion of complexity and articulation, [M3], flute, mm.10
Thematic variation, contraction of variety, [M2], clarinet, mm.10
Thematic variation, contraction of length, [M2], flute, mm.11
Thematic variation, expansion of length, [M3], flute, mm.12
Thematic expansion, of formal importance, [M5], viola, mm.12
Thematic variation, contraction of length, [M2], flute, mm.13
Thematic variation, contraction [M3], clarinet, mm.14

[ORo]:

Thematic/formal contrast between [M1]-[M4], flute, mm.1
Thematic/formal contrast between [M2]-[M4], clarinet, mm.2
Other thematic contrasts, whole section
Thematic/formal contrast between part A and B

[SS]:

Regularity of duration, [M1], flute, mm.1
Regularity of melodic interval, [M3], flute, mm.1
Regularity of melodic interval, [M3], clarinet, mm.2
External thematic symmetry, [M3]+[M4], flute, mm.3
Internal thematic symmetry, [M3]+[M4], flute, mm.3
Regularity of duration, [M1], clarinet, mm.3

External thematic symmetry, [M3]+[M4], clarinet, mm.4
Internal thematic symmetry, [M3]+[M4], clarinet, mm.4
Repetition of figure, [M2], clarinet, mm.5
Regularity of melodic interval, [M3], flute, mm.5
Regularity of melodic interval, [M3], clarinet, mm.6
Regularity of duration, [M1], flute, mm.6
Regularity of melodic interval, [M3], flute, mm.7
Regularity of duration, [M1], clarinet, mm.7
Regularity of duration, [M1], viola, mm.8
Repetition of figure, [M2], flute, mm.9
Regularity of duration, [M1], clarinet, mm.9

[**WS**]:

Mobile regularity, [M2], clarinet, mm.1
Mobile regularity, [M2], flute, mm.1
Small var. of interpolation rule, whole tones replacing chromatic scale, [M3], cl., mm.2
Mobile regularity, [M2], clarinet, mm.3
Small var. of interpolation rule, [M3], clarinet., mm.6
Mobile regularity, [M2], clarinet, mm.5
Mobile regularity, [M2], flute, mm.6
Mobile regularity, [M2], flute, mm.9
Mobile regularity, [M2], clarinet, mm.10
Mobile regularity, [M2], flute, mm.11
Rubato, final cadence of section B

[**SA**]:

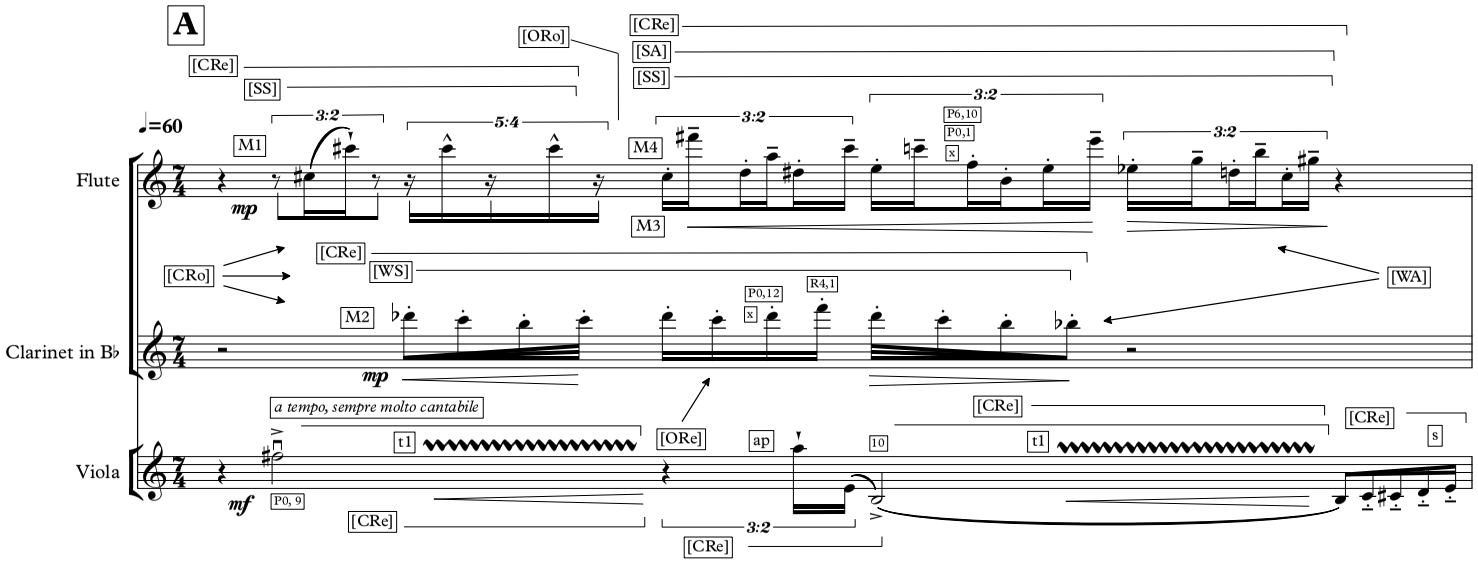
Interpolated axial series, [M4], flute, mm.1
Interpolated axial series, [M4], clarinet, mm.2
Interpolated axial series, [M4], flute, mm.5
Interpolated axial series, [M4], clarinet, mm.6
Interpolated axial series, [M4], flute, mm.8
Interpolated mixed chords, [M3], flute, mm.10

[**WA**]:

Superposition of melodic ranges and irrational rhythmical relationship between flute and clarinet, whole piece.
Mass composition, mass composition, whole part B
Variable performing controls

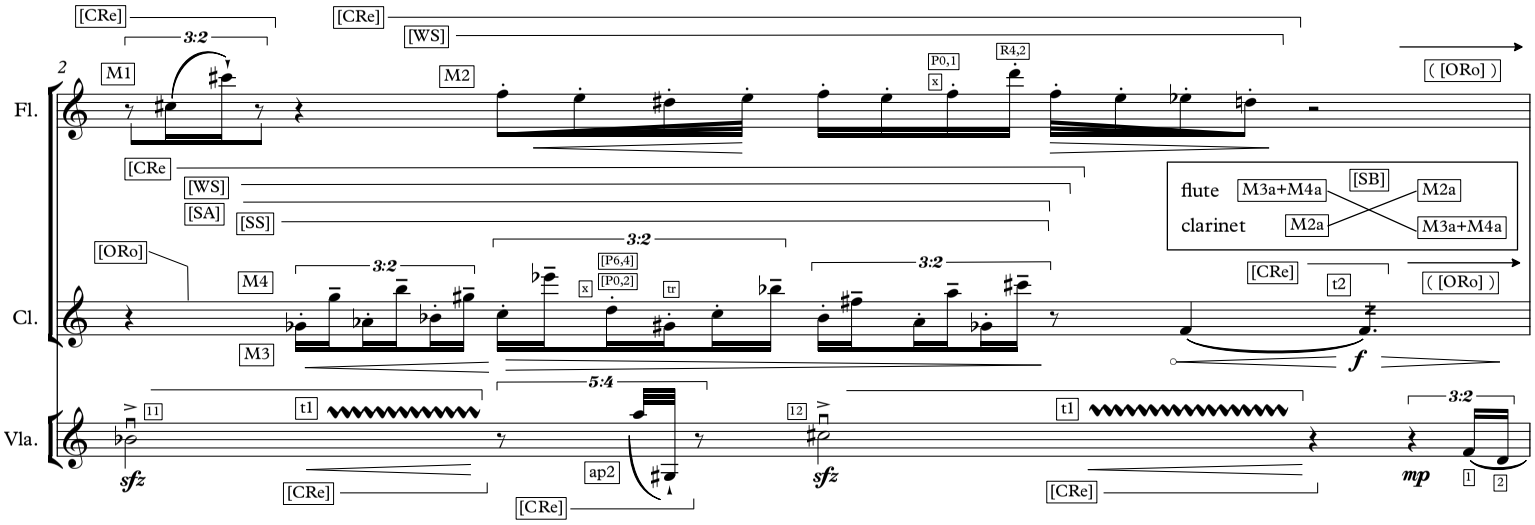
[**SB**]: Rule of thematic alternation between flute and clarinet, whole piece.
[**WB**]: Compositionally irrelevant in this instrumental version.
[**SU**]: Serial fluidity.
[**WU**]: Gradual formal and thematic liquidation (part D).
[**PM**]: Preponderant metric image: *partial metric mobility by melody*

Flegetonte, measure 1



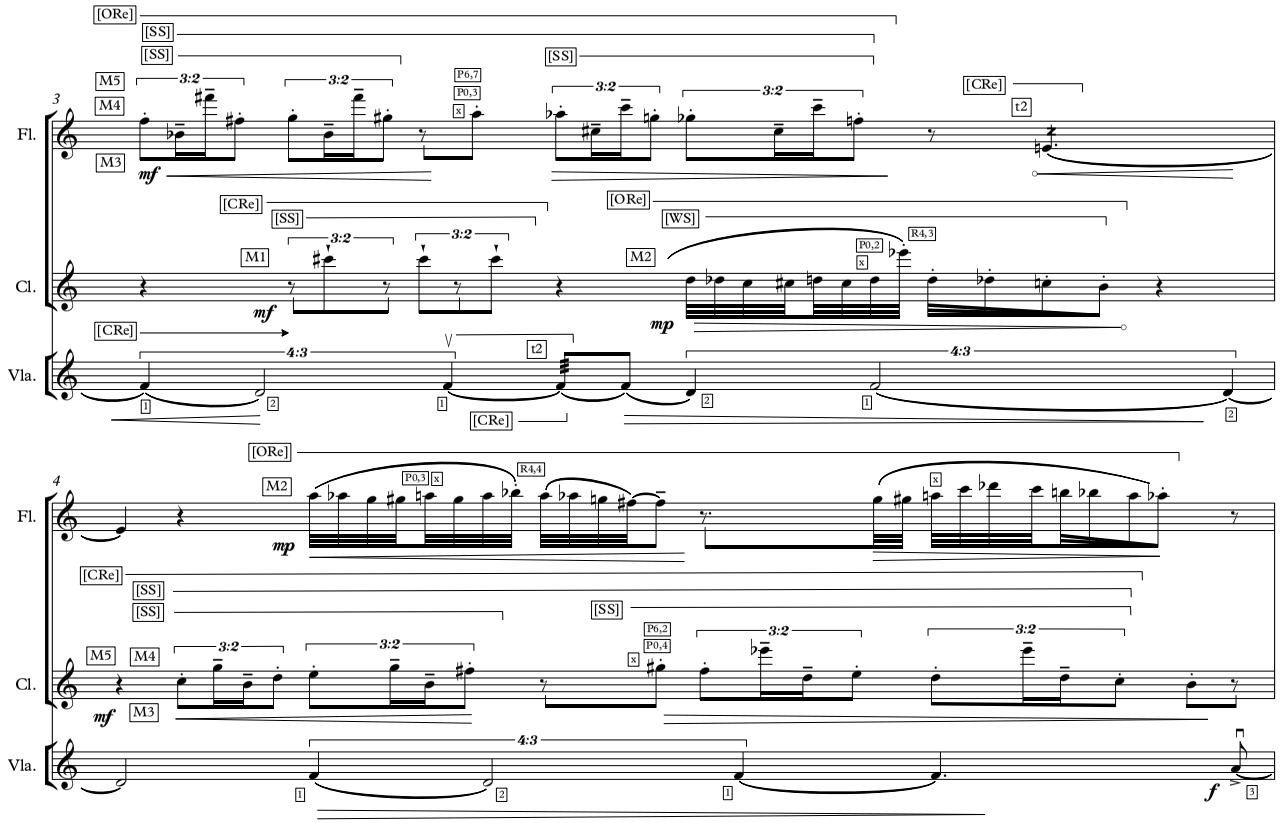
The theme [M1], presented by the flute, establishes a first dramatic moment of temporal contraction, under the rhythmic idea of closed refrain, [CRe], and the rhythmic idea of strong symmetrization, [SS]. Next to it, still following the flute part, the axial imbrication of two thematic operations, [M3+M4], respectively, a chromatic scale and a [P6] series section, is more complex from the point of view both of texture and rate of speed, thus being prevalently oriented in an intermediate compositional level by [SS], due to its general symmetric shape, but also by the rhythmic idea of strong asymmetrization, [SA], of lyrical extraction, because of its designed internal asymmetry. The contrast between [M1] and [M3+M4] is guided in turn by the rhythmic idea of open route, [ORo]. The theme [M2], presented by the clarinet, which is also more complex, particularly because of its mobile rhythmical design, is oriented by the rhythmic idea of weak symmetry, [WS]. The overall applied polyphonic rule is guided by the rhythmic idea of closed route, [CRo], and the harmonic blurring effect informed by the textural aggregate resulting from the sum of flute and clarinet parts is, in turn, oriented by the rhythmic idea of weak asymmetry, [WA]. Yet, the compositional cross-spectra transposition of the timbral effect obtained from the strong vibrato in the viola, [t1], to the melodic domain by means of the undulant theme in the clarinet, in [M2], is oriented by the rhythmic idea of open refrain, [ORe], as a thematic expansion. Lastly, in this measure, the repetition of this timbral effect, [t1], is also guided by [CRe], which orients the presentation of the memorable melodic motive that bridges first and second measures.

Flegetonte, measure 2



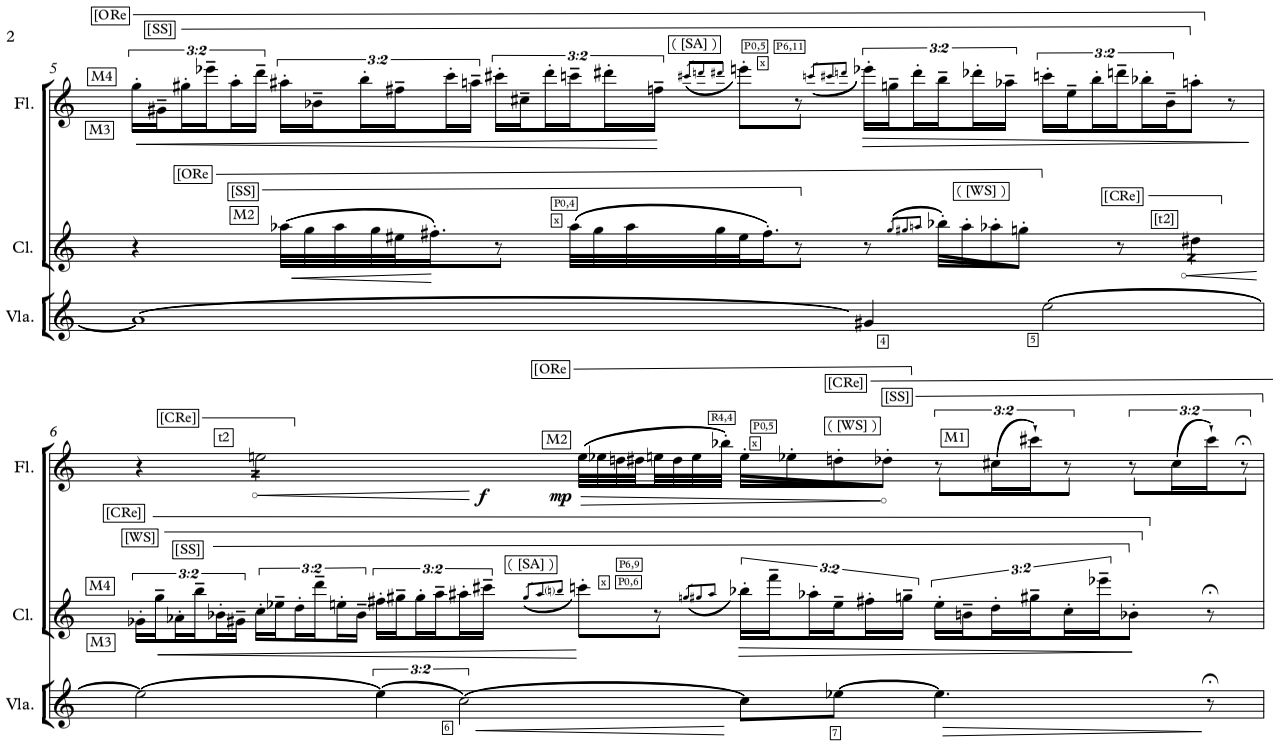
[M1] is presented at the same metric position as before, in the flute part. This repetition reinforces its characterization which 'accumulates', as it were, back on itself, the initial guidance of [CRe]. The characterization of [M1] thus becomes stronger. In the same vein, and again still following the flute part, [M2] is also reinforced under the orientation of [CRe]. In itself, [M2] is also guided by [WS], because of its mobile rhythmical design. A similar general dramatic orientation, under the guidance of [CRe], happens in the clarinet part, involving [M3+M4], with the difference that [M3] is now composed by a whole tone instead of a chromatic scale. This very superficial tonal differentiation is however enough to stand as a difference of character, being it thus oriented by [WS]. The thematic contrast between [M2] and [M3+M4] is oriented by [ORo], and the repetition of the double *appoggiatura* in the viola is also guided by [CRe]. Lastly, the imitative inversion of the initial themes [M2] and [M3], between flute and clarinet, which are obviously different instruments and hold particular characteristics of sound projection and colour, is oriented by the rhythmic idea of strong balance [SB], the balance being in this specific case preponderantly drawn on timbre, but not only, since the notion of balance operates here also as a coherent function of the difference of rhythmical complexity the is compositionally projected between the themes. Lastly, in this section, the recurrence of the timbral effect in the viola, [t1], and a timbral effect of another kind, presented in the clarinet, [t2], are guided by [CRe], as they become increasingly characterized.

Flegetonte, measures 3-4



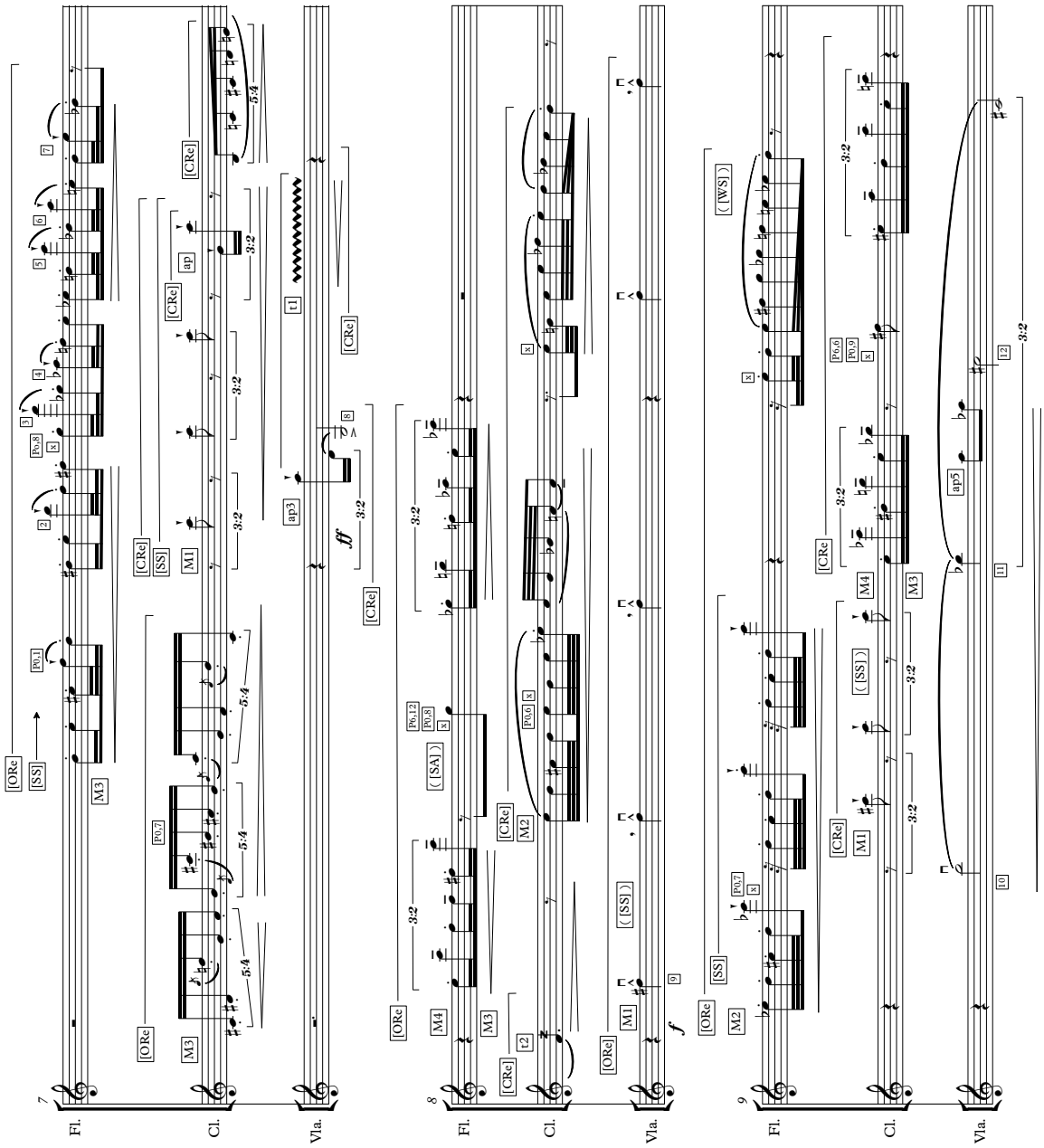
[mm. 3] — The theme [M3+M4], in the flute part, stands as a first clear expansion of [M3] and [M4], chiefly in terms of melodic amplitude and rhythmical design. This expansion becomes itself a relevant thematic element [M5]. It is thus guided by [ORe], though being also internally oriented by three instances of [SS], because of its strong reiterative character. In the clarinet part, a third repetition of [M1], reinforces the sense of characterization informed by [CRe]. Next, still in the clarinet part, [M2] is rhythmically compressed. This compression, which happens at the level of the presentation of the idea, actually represents, otherwise, an expansion of musical time, a temporal accentuation. This theme is thus preponderantly oriented by [ORe], and is internally guided by [WS]. In the viola part, a steady melodic pedal is oriented by [CRe]. The timbral effect [t2] is also reinforced, presented in the flute and in the viola parts, guided by [CRe]. *[mm. 4]* — The theme [M2], presented by the flute, stands, as well, but as a larger thematic expansion, and is oriented by [ORe]. And, because of readdressing a same compositional operation of symmetrization, just presented in the previous measure, [M3+M4] now represents a stronger temporal contraction under the influence of [CRe]. Clearly, a same theme or thematic operation may mean differently, depending on the musical time and musical temporality it is grounded on.

Flegetonte, measures 5-9

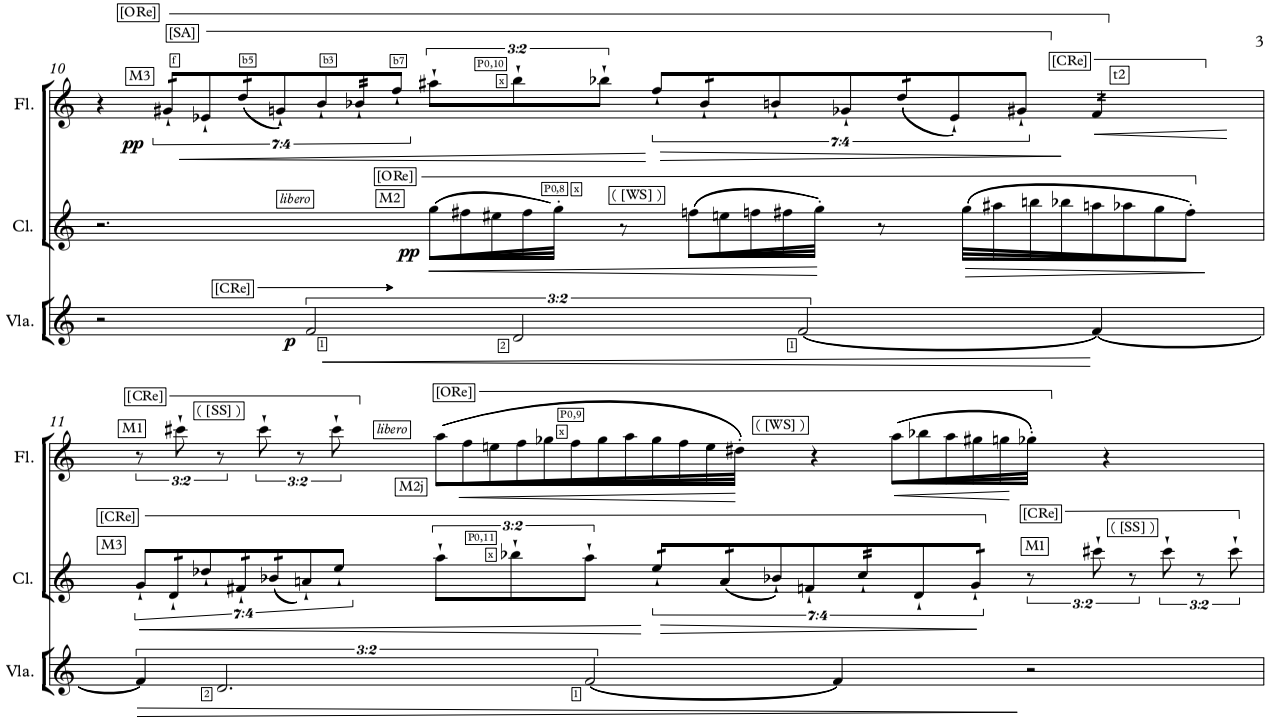


Measures 5 to 9 are compositionaly guided by the same general temporal principles presented in the first measures, that is, (i) by a same generic rule of development, [CRo], that stands as a kind of steady dramatic, determinate future; (ii) also by many instances of thematic reinforcements, [CRe], that stand actually as centripetal events or dramatic forms of musical past, that concentrate memory in a single temporal point; (iii) also by many instances of thematic expansions, [ORe], turned to the future in a more open and lyrical way, while some of these expansions are also repeated, being thus temporally neutralized by a dramatic attitude; (iv) by constant polyphonic contransting operations of thematic alternation, [ORo], (v) yet by many strong symmetrizations, [SS], and by the comprehensive imitative character of the texture, marked by a balanced alternation of themes between flute and clarinet voices, [SB], both operations, in a sense, of strong dramatic orientation; and more importantly, (vi) by a systematic repetition of [M1], forming a strong chain of thematic characterizations [M1a, b, c, d, etc.], which is melodically confirmed by the note pedal in the viola main part — mm. 8. And yet, in this same context, by the reinforcement of [t1] and [t2] in the viola, clarinet and flute parts, in different moments.

Flegetonte, mm. 5-9 (cont.)

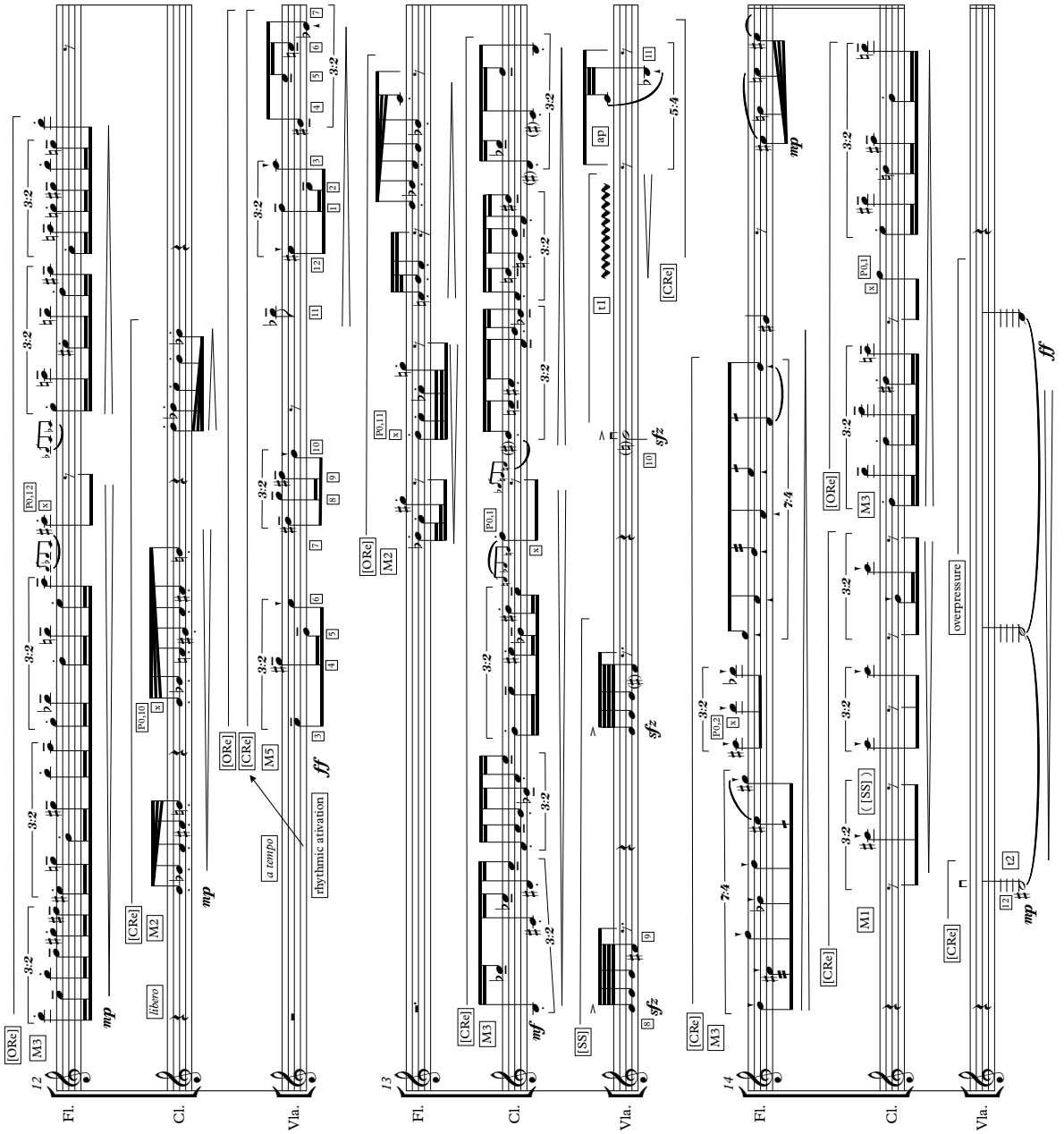


Flegetonte, measures 10-14

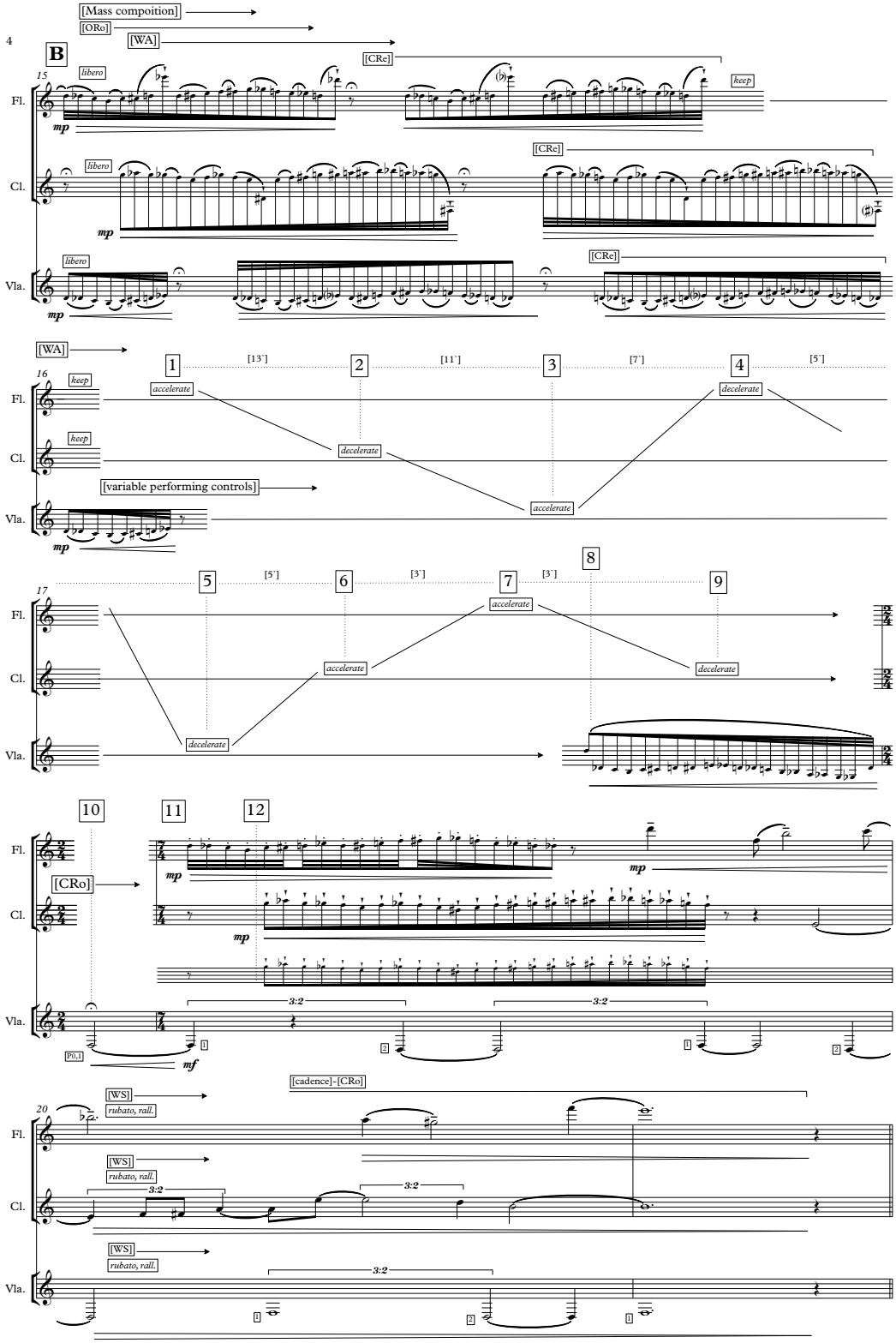


Compared to the previous ones, measures 10 to 14 are increasingly lyrical. They stand in this sense as a compositional temporal bridge linking main parts A and B. Many compositional operations are held. However, different scalar sets are interpolated by the series, including the diminished seventh chord, and major and minor triads. [M2] assumes a stronger mobile rhythmical impulse and the texture in general becomes more complex. The rhythmic activation in the viola part, [M5], oriented by [CRe], is presented in preparation for a further development in part C, *stretto*. Overall, the composition is strongly guided by [ORe]-moments and also by new ornamental approaches, including the guidance of [WS] and [SA].

Flegetonte, mm. 10-14 (cont.)

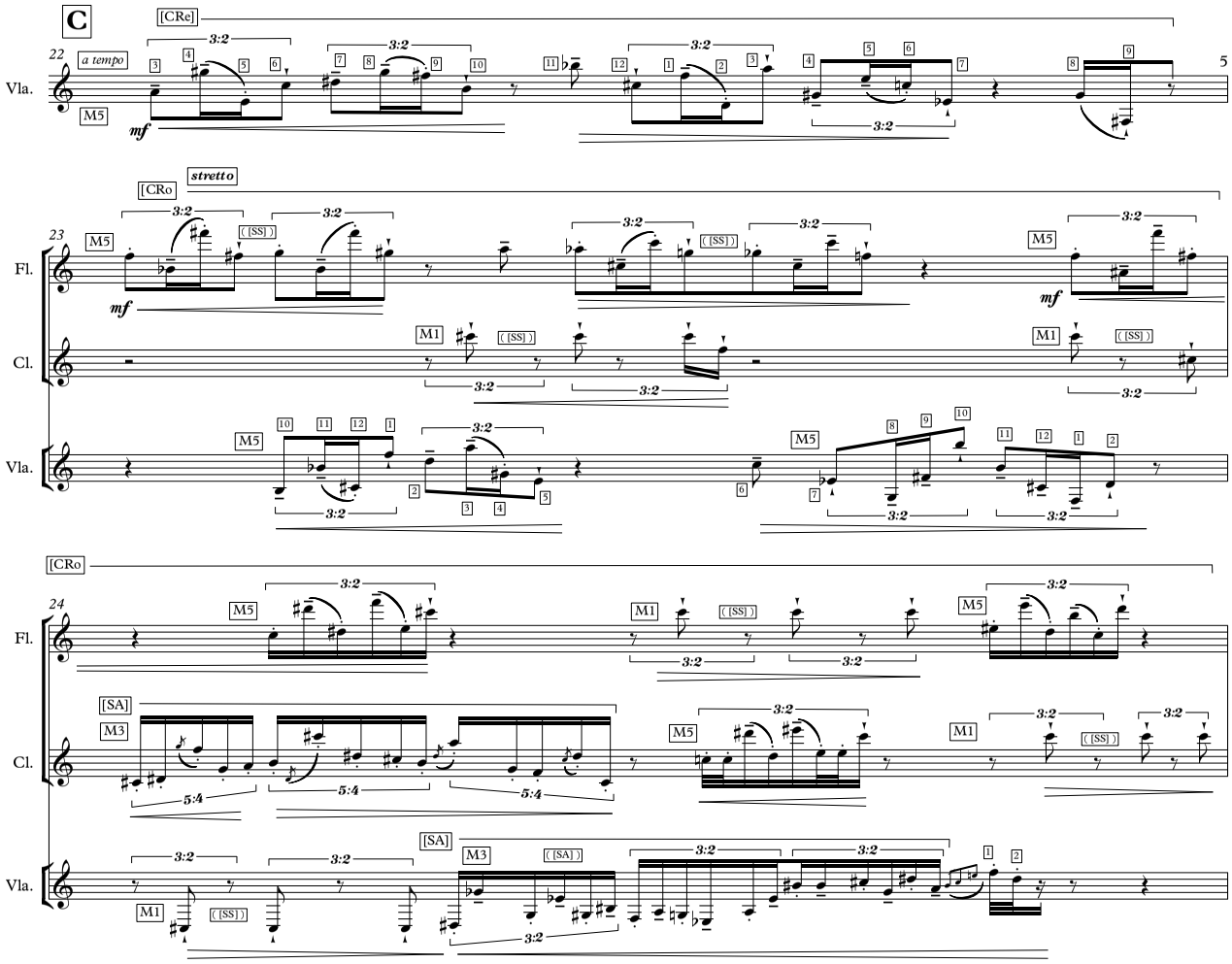


Flegetonte, measures 15-20



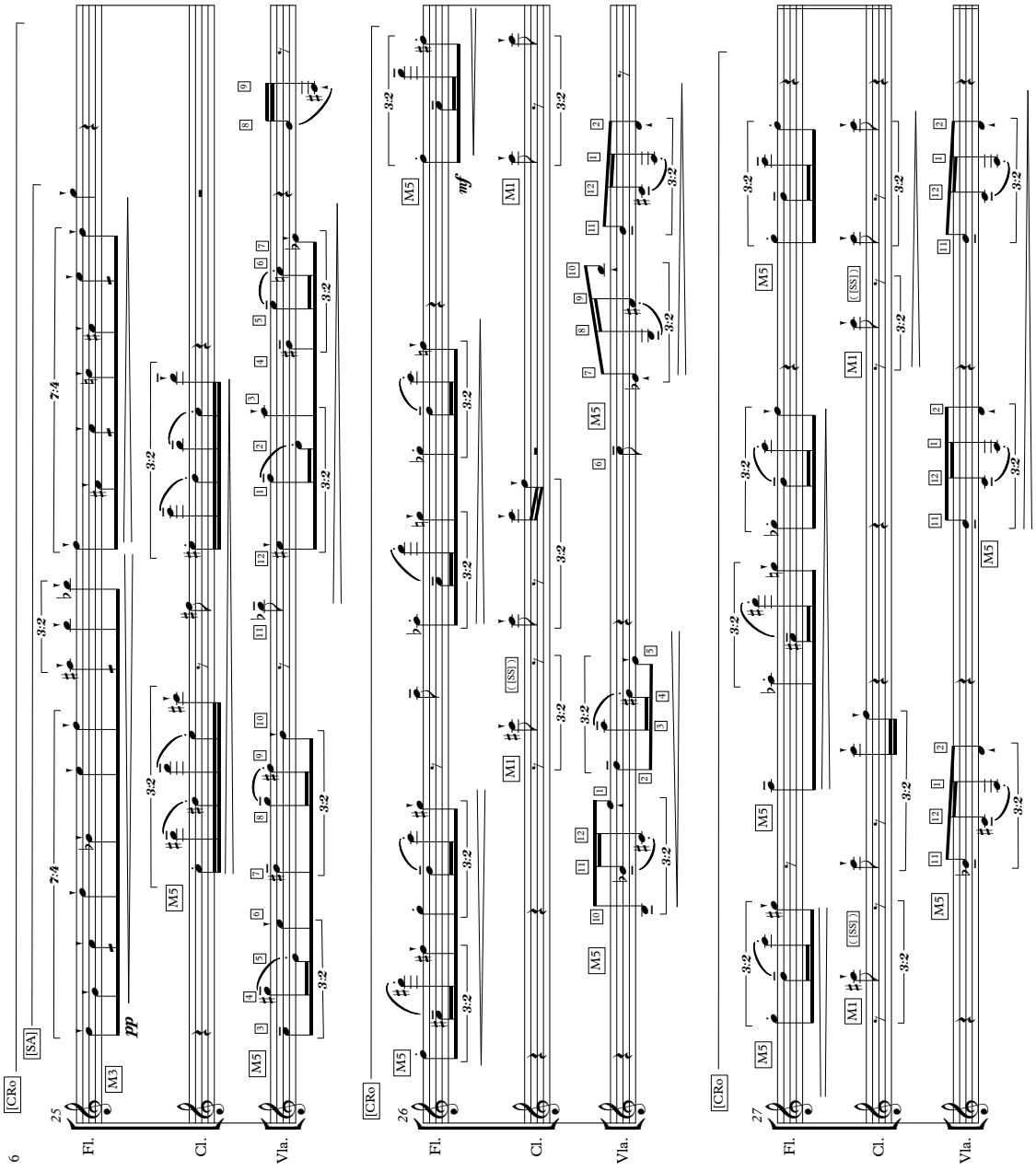
Part B is fully lyrical. It opens with a repetition box characterized by strong mobility and harmonic density. This formal transition and the overall compositional design involving a temporal structure of mass added to variable performing controls are dominated by the rhythmic idea of open route [ORo]. Measure 15 and 16 are thus marked by the guidance of the rhythm idea of weak asymmetrization, while from the measure 18 onwards the composition is guided by a general dramatic temporal contraction by [CRo], towards a tonal and rhythmical cadence in *tempo rubato*, in itself oriented by [WS].

Flegetonte, measures 22-27

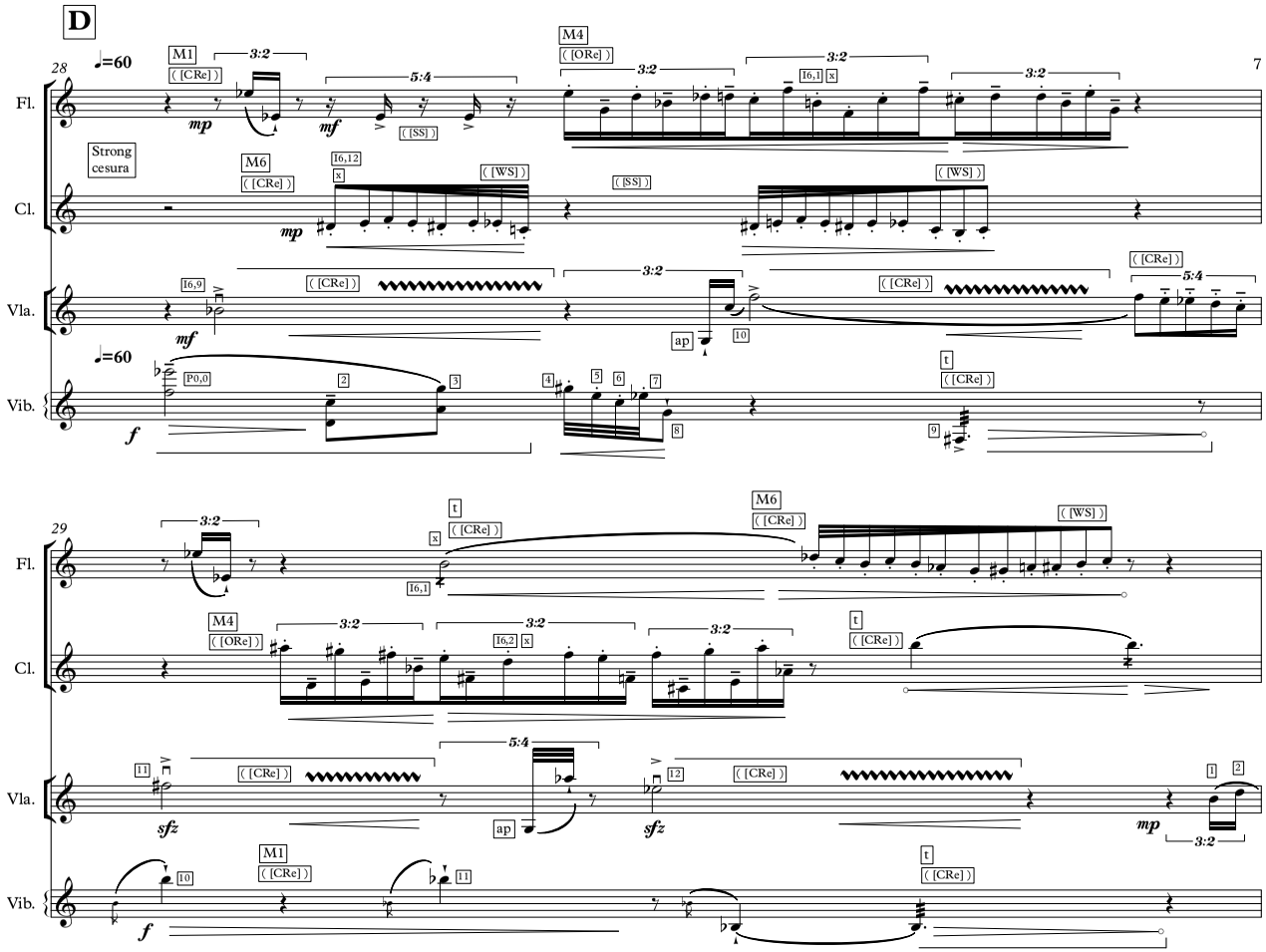


Part C is developmental and fully dramatic, and presents many variational processes on [M5] in *stretto*, which are contrasted by some axial operations in direct reference to part A. The section is strongly guided by the rhythmic idea of closed route [CRo], and extrapolates the previous polyphonic rule of development by systematic unfolding, just presented in part A.

Flegetonte, mm. 22-27 (cont.)

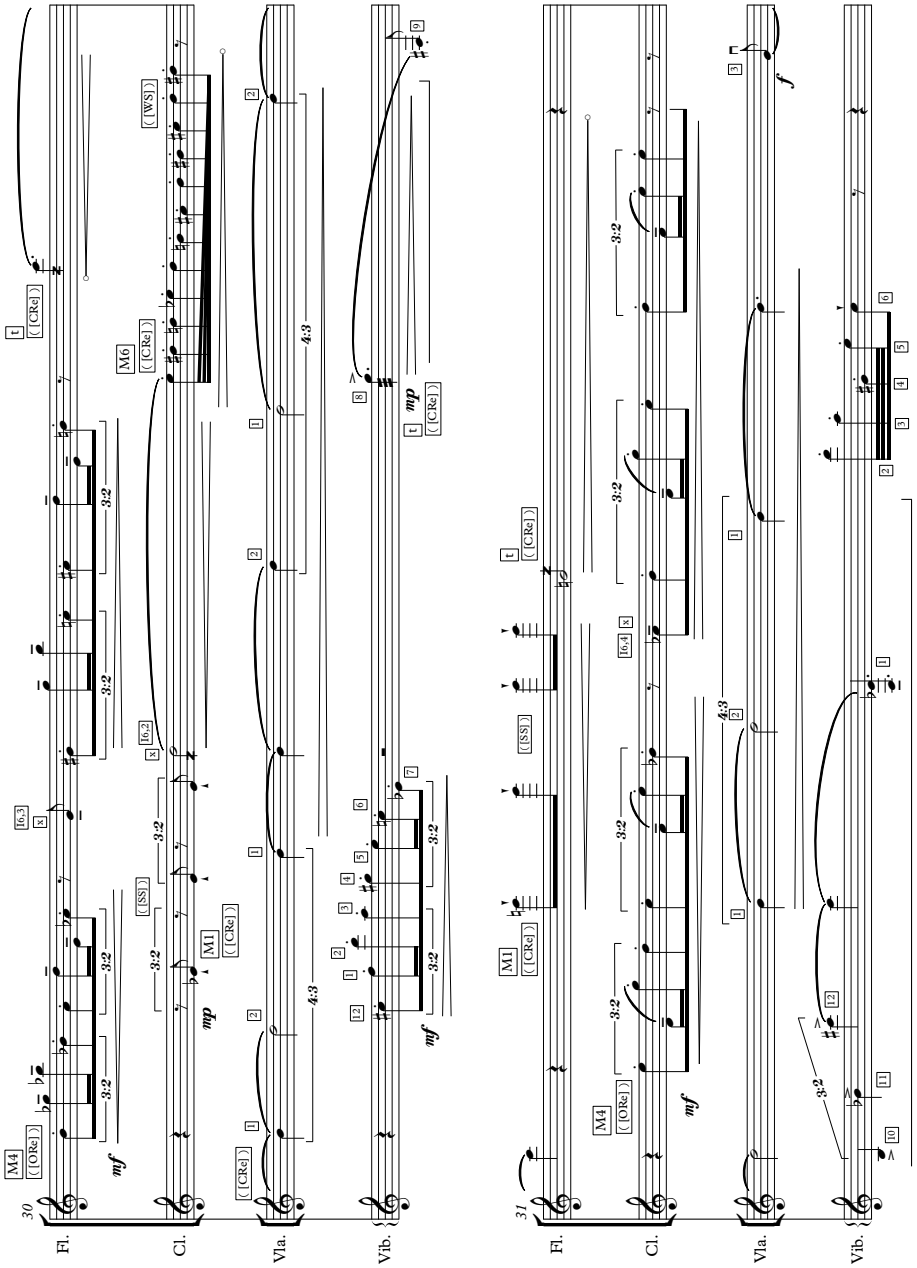


Flegetonte, measures 28-31

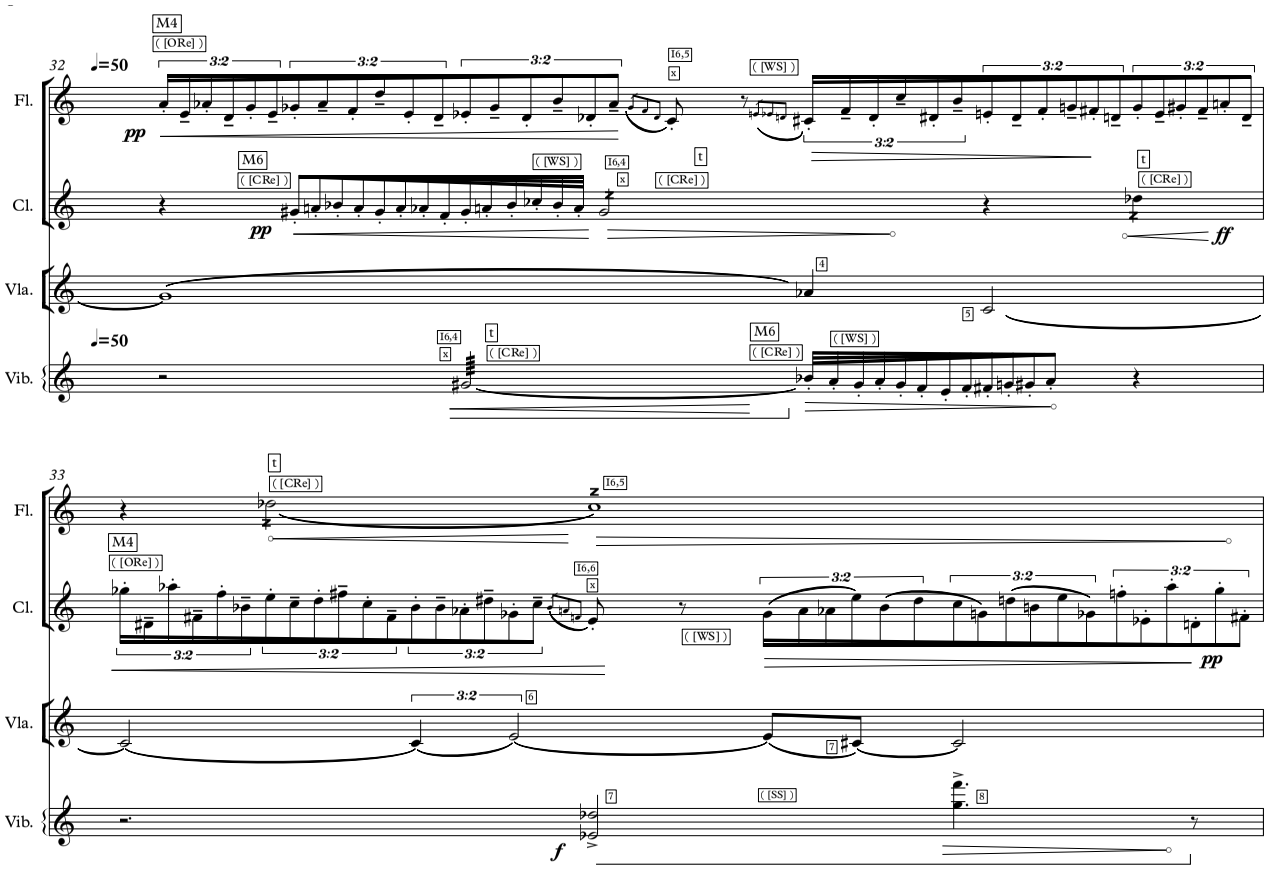


Part D is basically a varied reexposition of par A, though it presents some important new temporal aspects. The compositional rate of change is now slowed down and repetitions and motivic pedals are openly assumed. Rhythmical texture and complexity are rarefied and there is more space for the manifestation of moments of silence. The lyrical 'flame effect' is gradually turned into 'tremblings' and 'whisperings', as it were. The main melody, in the viola part is, in essence, a full recapitulation of the melody just presented in part A, even though now transposed to [P6], and polyphonically accompanied and supported by a melody presented in free counterpoint by the vibraphone part, in [Po]. This serial fluidity is in itself oriented by the rhythmic idea of strong unbalance, [SU], as previously discussed, and grounds the piece as a whole. Generally, the gradual formal and thematic liquidation presented in part D is directly influenced by the rhythmic idea of weak unbalance, [WU], as far as a fluid lyrical rule of development becomes more and more dominant.

Flegetonte, mm. 28-31 (cont.)

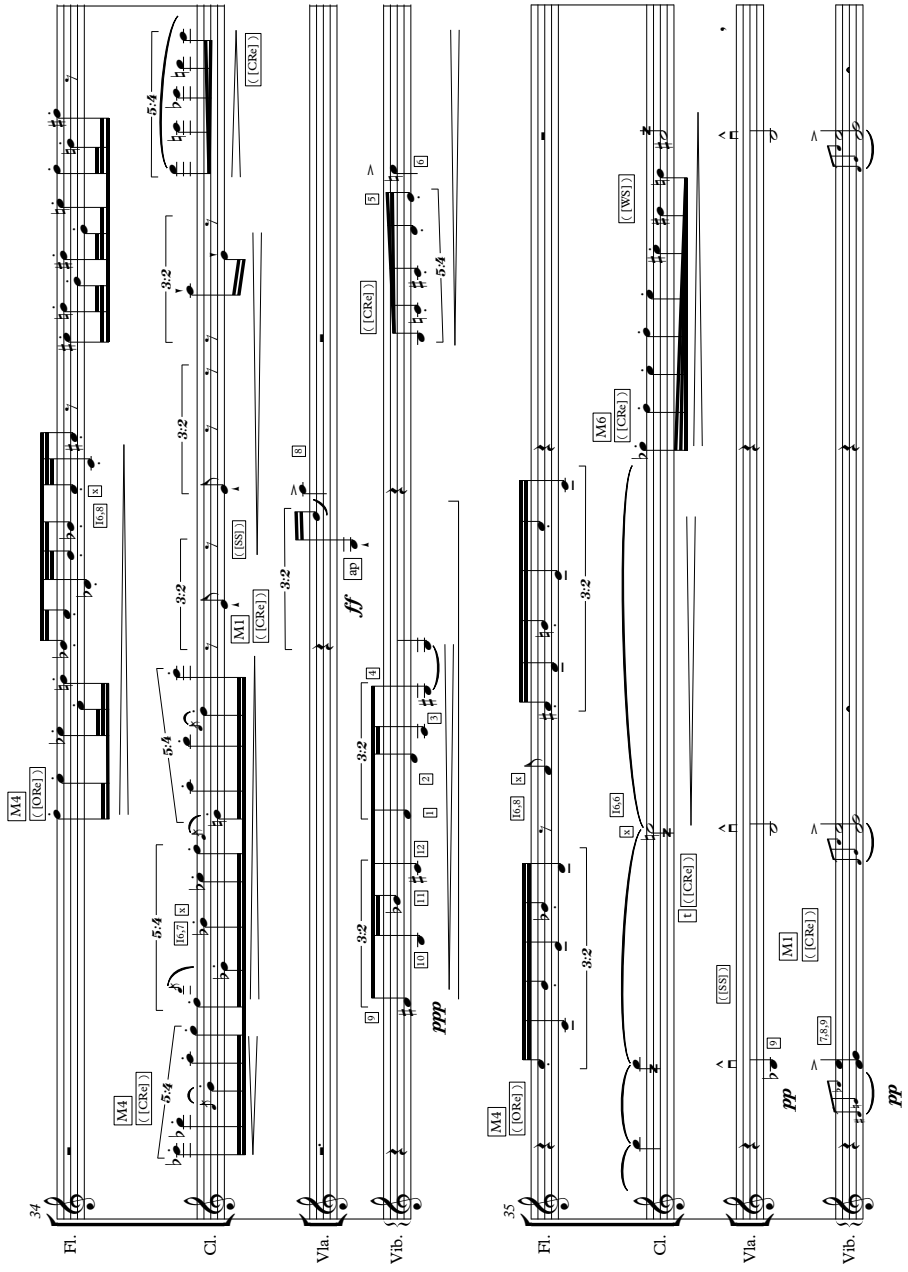


Flegetonte, measures 32-35

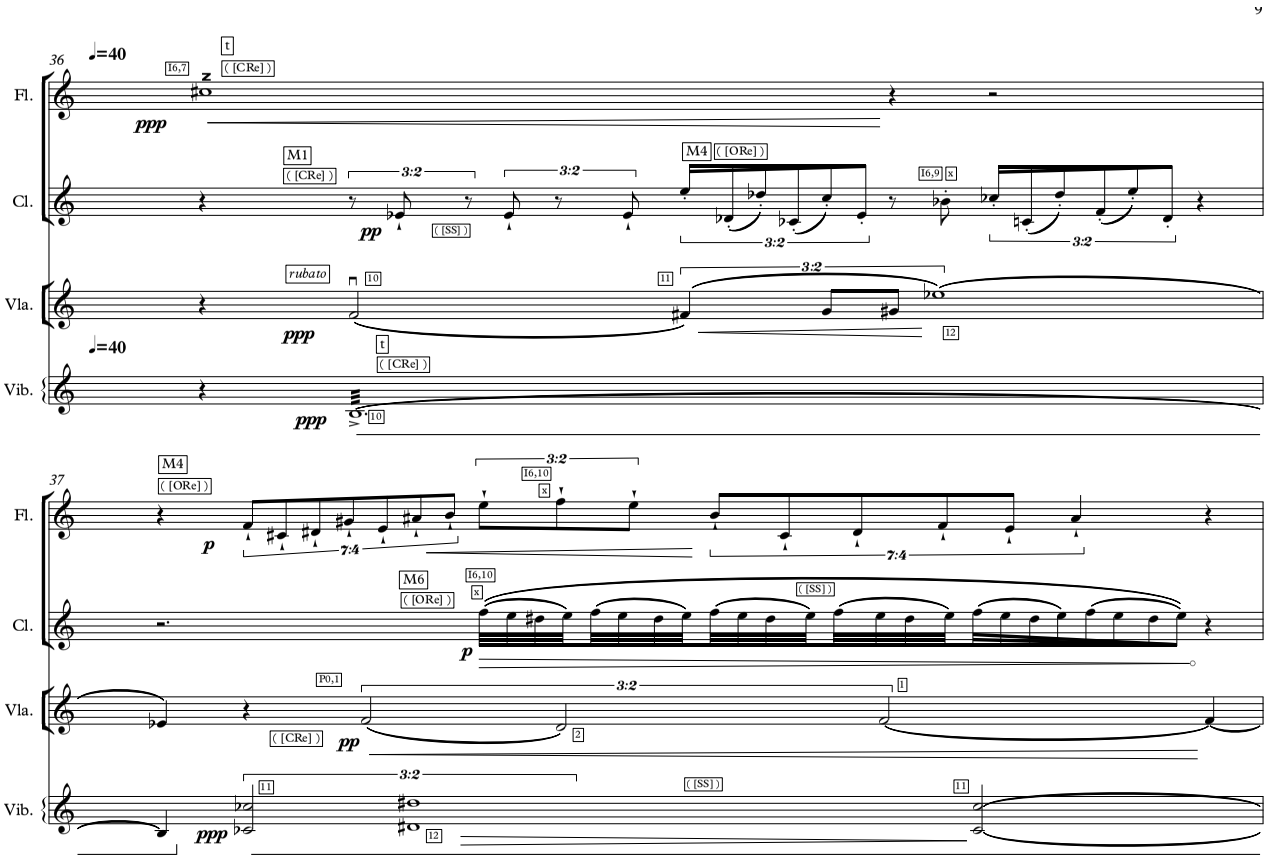


The whole last section of the piece may be seen thus as a sort long cadential progression towards a final 'whispering' presented by the viola. Timbral effects are polyphonically mixed across the section in support of this image, calling themselves for a dramatic sentiment, hence for a dramatic time, even though weakened, neutralized, so to say, by a gradual dominance of lyricalness. It has been proposed that time and musical time share a same inner quality of complexity and dynamism. These aspects are sensed here, they are actually compositionally projected here, in the sense that 'past musical tenses' may be experienced in simultaneity with future ones; centripetal temporal tendencies may be understood in collaboration with centrifugal ones. And yet, to say it with Bachelard, moments of formal articulation may be contemplated not only from the perspective of coherence and clarity of presentation, but even more from the point of view of newness and creativity.

Flegetonte, mm. 32-35 (cont.)

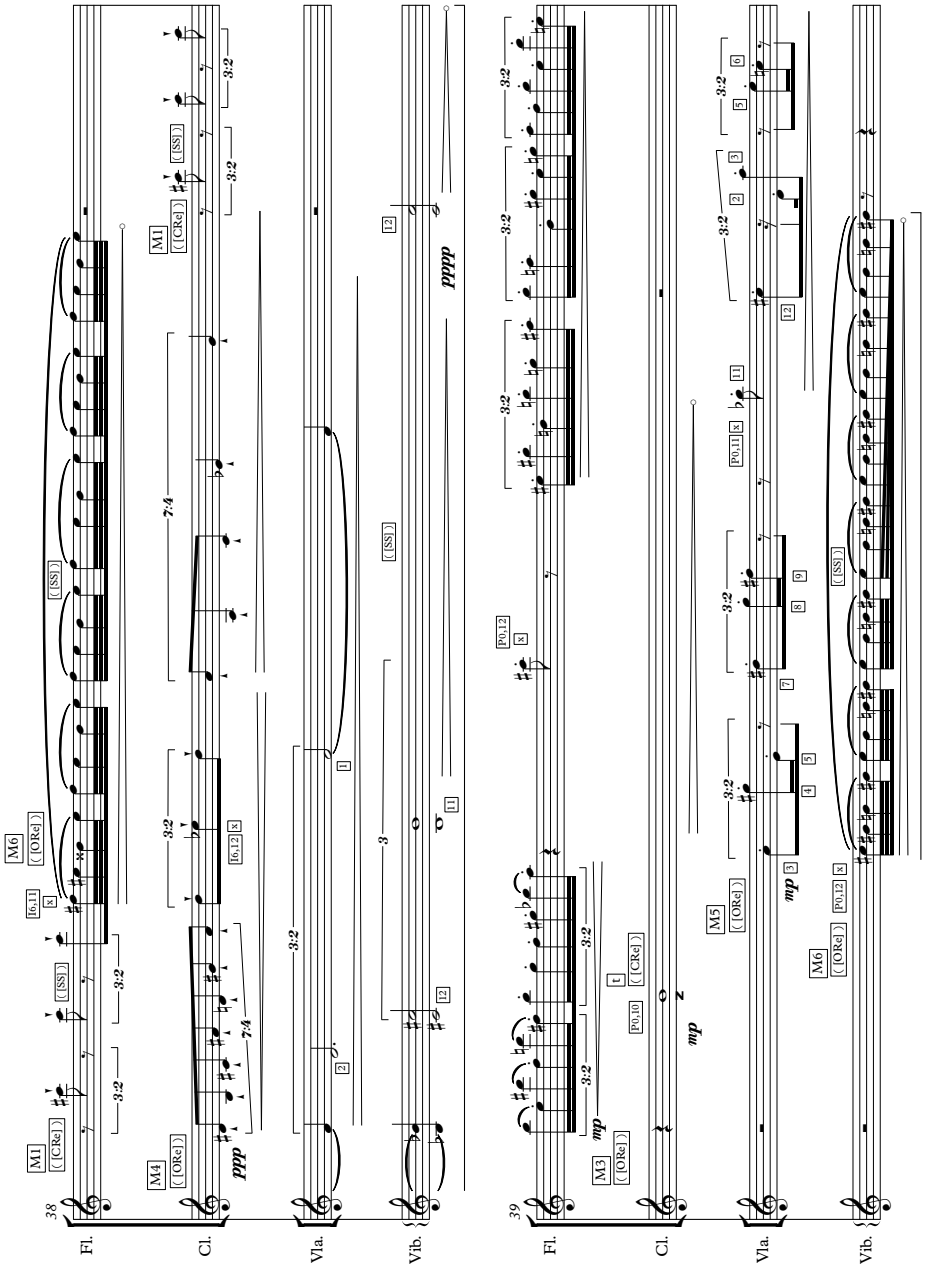


Flegetonte, measures 36-39

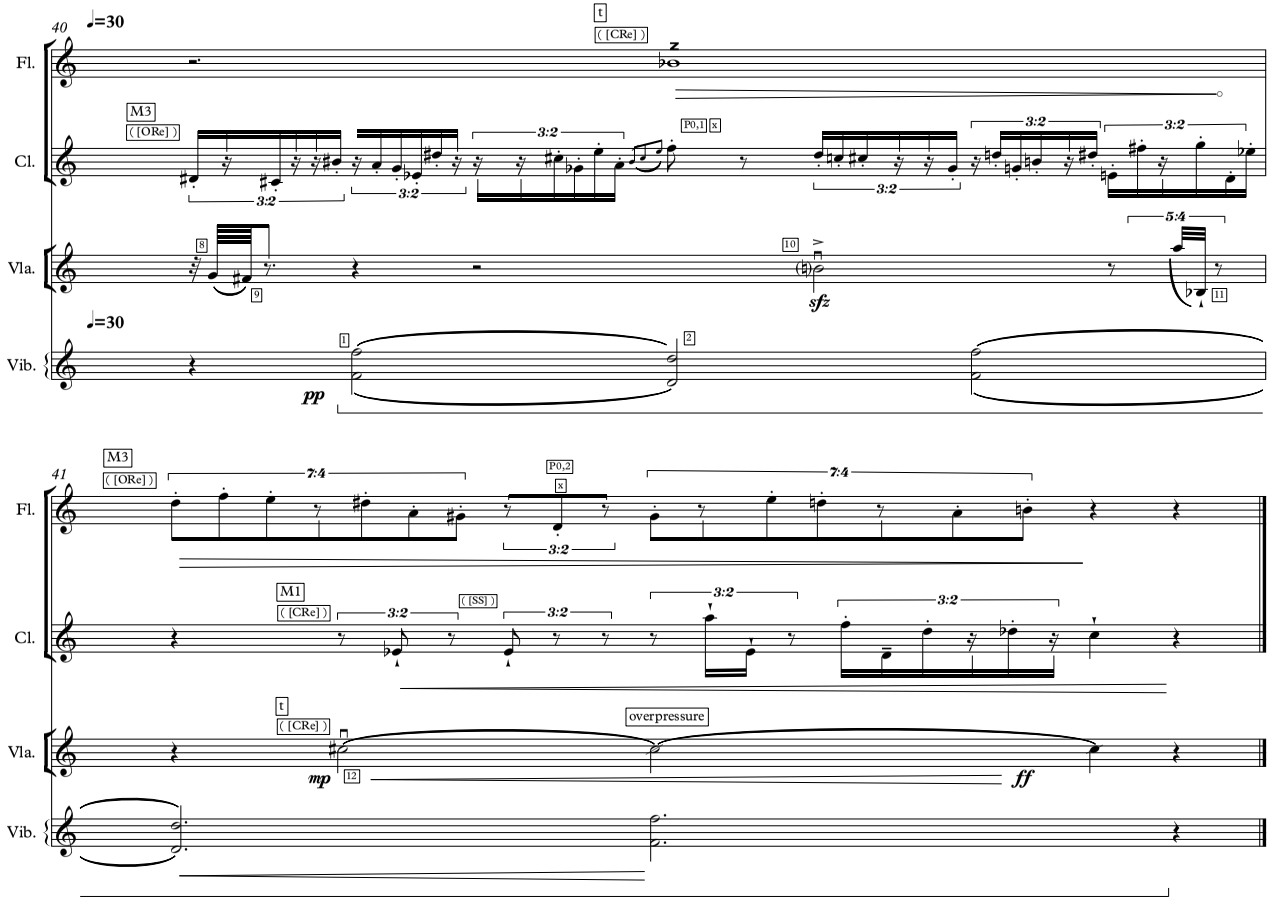


The lyricalness called in this section is different in kind, if compared to the one presented in other sections of the piece, specially in part B. The speed of presentation impacts significantly on lyricalness as the tempo recedes, generally, from *andante* to *adagio*, at the end of the piece. There is 'enough time' for experiencing the shape, the contour, the inner characteristics of the theme; for the emergence of links and senses among the thematic presentation and its diverse compositional manipulation; there are more time for the manifestation of memory, and also for the emergence of some necessities, of some determinations, causality, balance and coherence. The rate of presentation and the level of complexity of polyphony are thus determinant factors in this case in the intensification or restraining of lyricalness. In this sense, the control of spreed of presentation is also generally oriented by determinate rhythmic ideas: the more linear amd turned to slowness this control, the more dramatic it becomes.

Flegetonte, mm. 36-39 (cont.)



Flegetonte, measures 40-41



Flegetonte is an applied piece of music, devised in order to attend some theatrical determinations, a major narrative and the limits imposed by instrumental and dance acts on stage. With the guidance of rhythmical ideas, in all that they can provide one in terms of the deepening of the understanding of his or her musical creative impulses, the compositional process of this piece in particular was strongly integrated with the desired, in many senses designed, temporality of the scene.

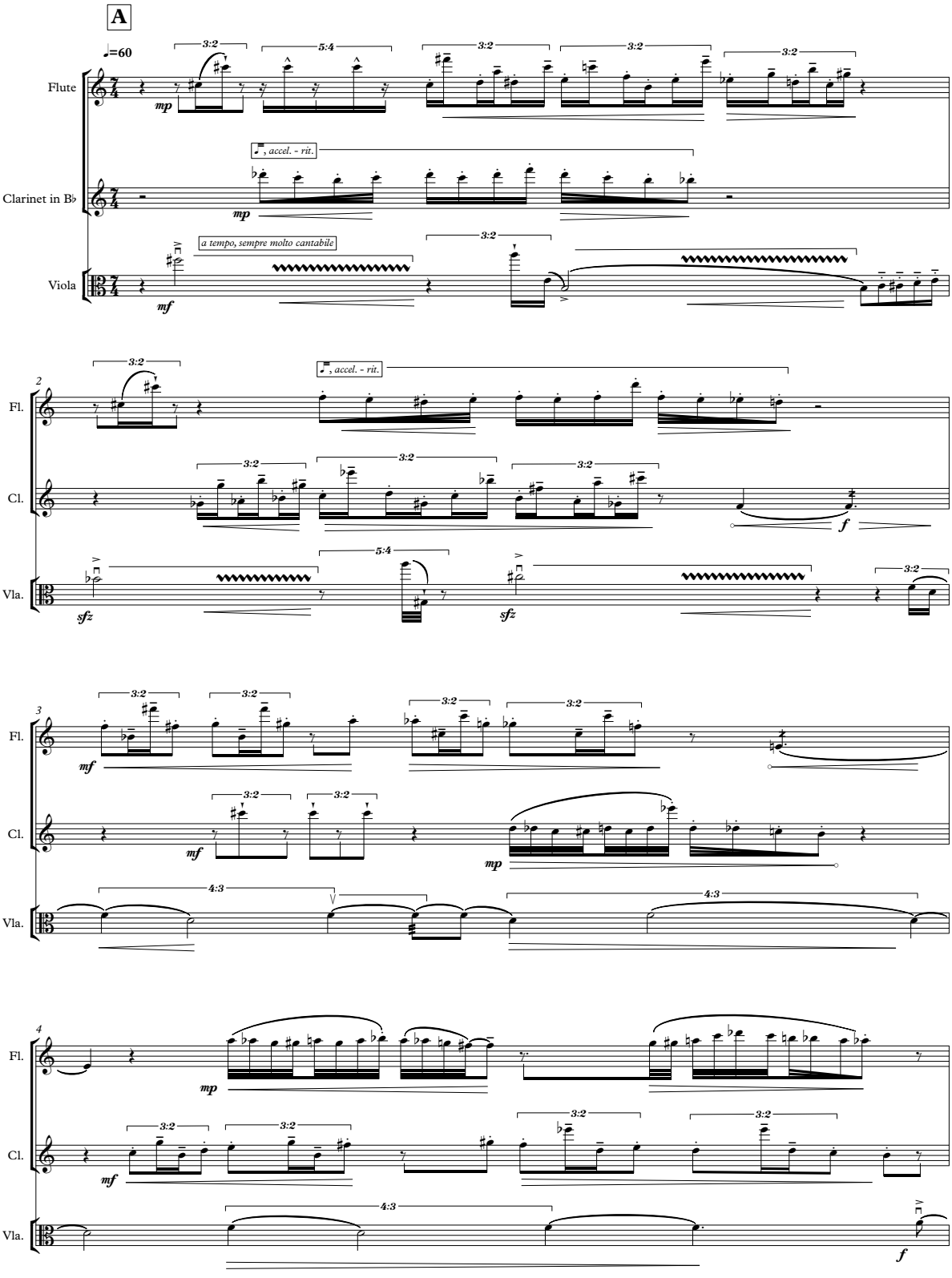
Rest to say that a same idea may be contemplated from the perspective of a whole section or much more closely inside a motive. Rhythmic ideas are indeed compositional forces that mirror the experience of time in general, which in itself is also composed by a similar 'cognitive amplitude', because everything depends, it seems, on how we address our attention and intelligence, on the reach of our memory and imagination, understanding and sensibility.

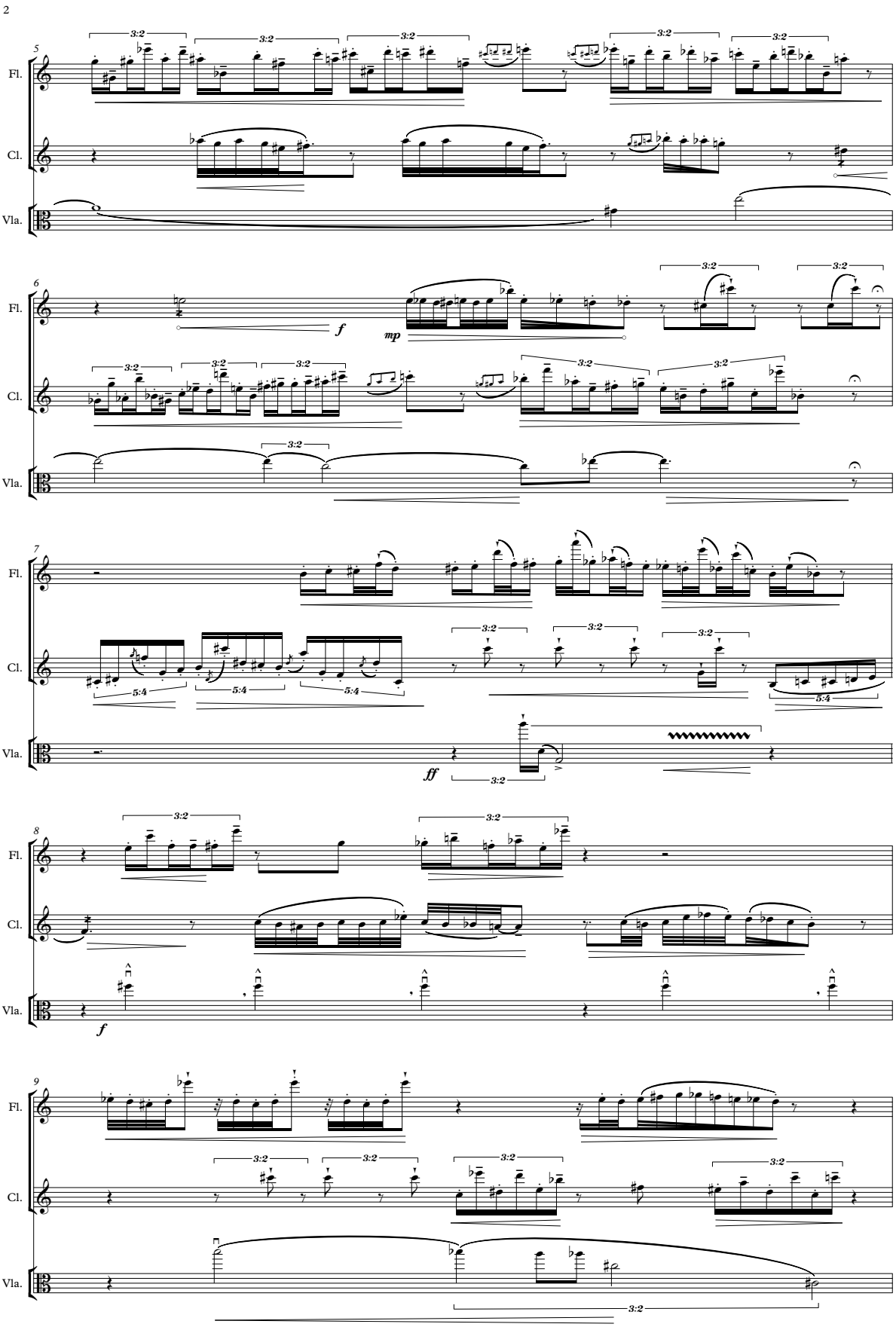
Flegetonte

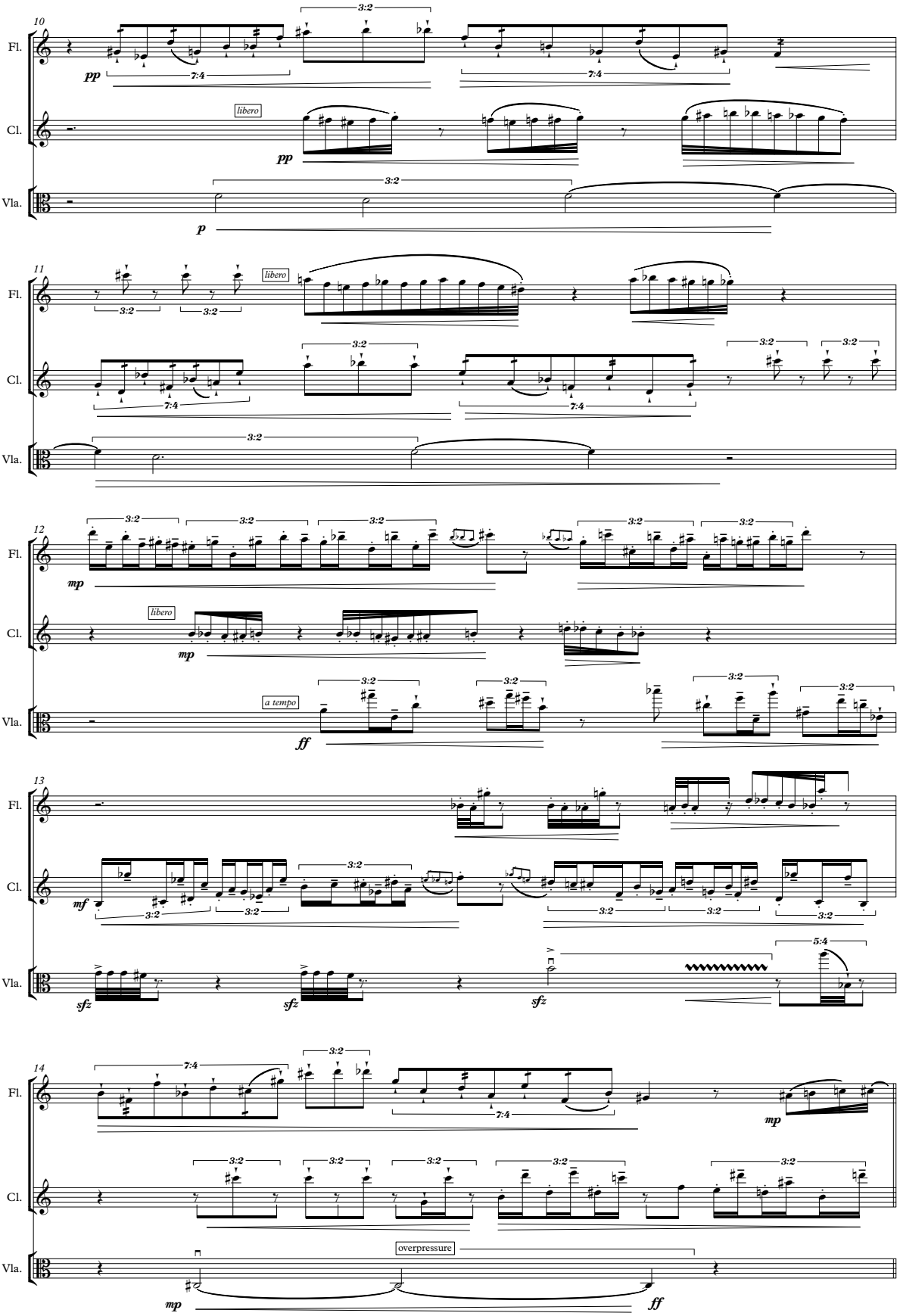
Águas do Éden e do Hades

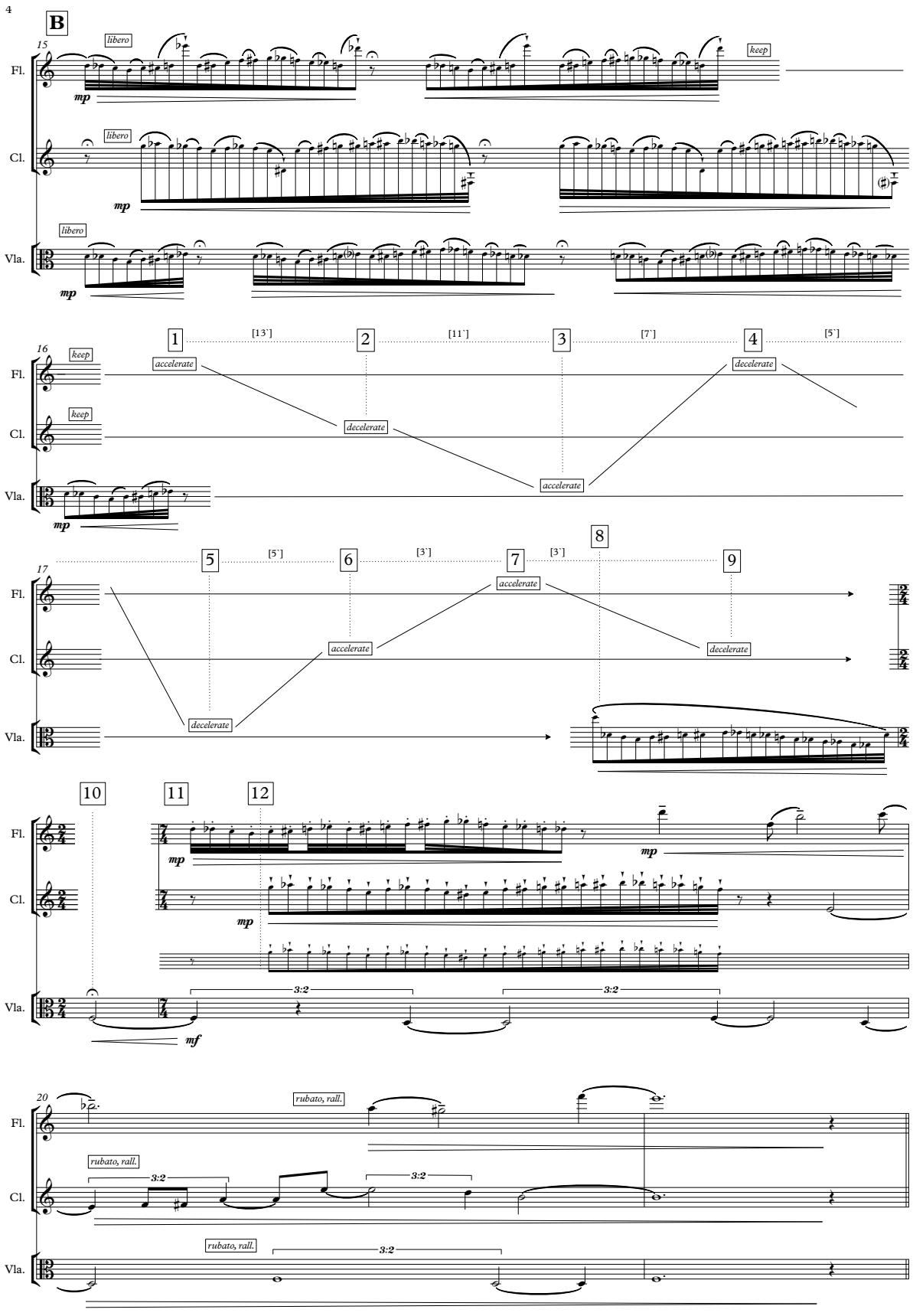
Eden and Hades Waters

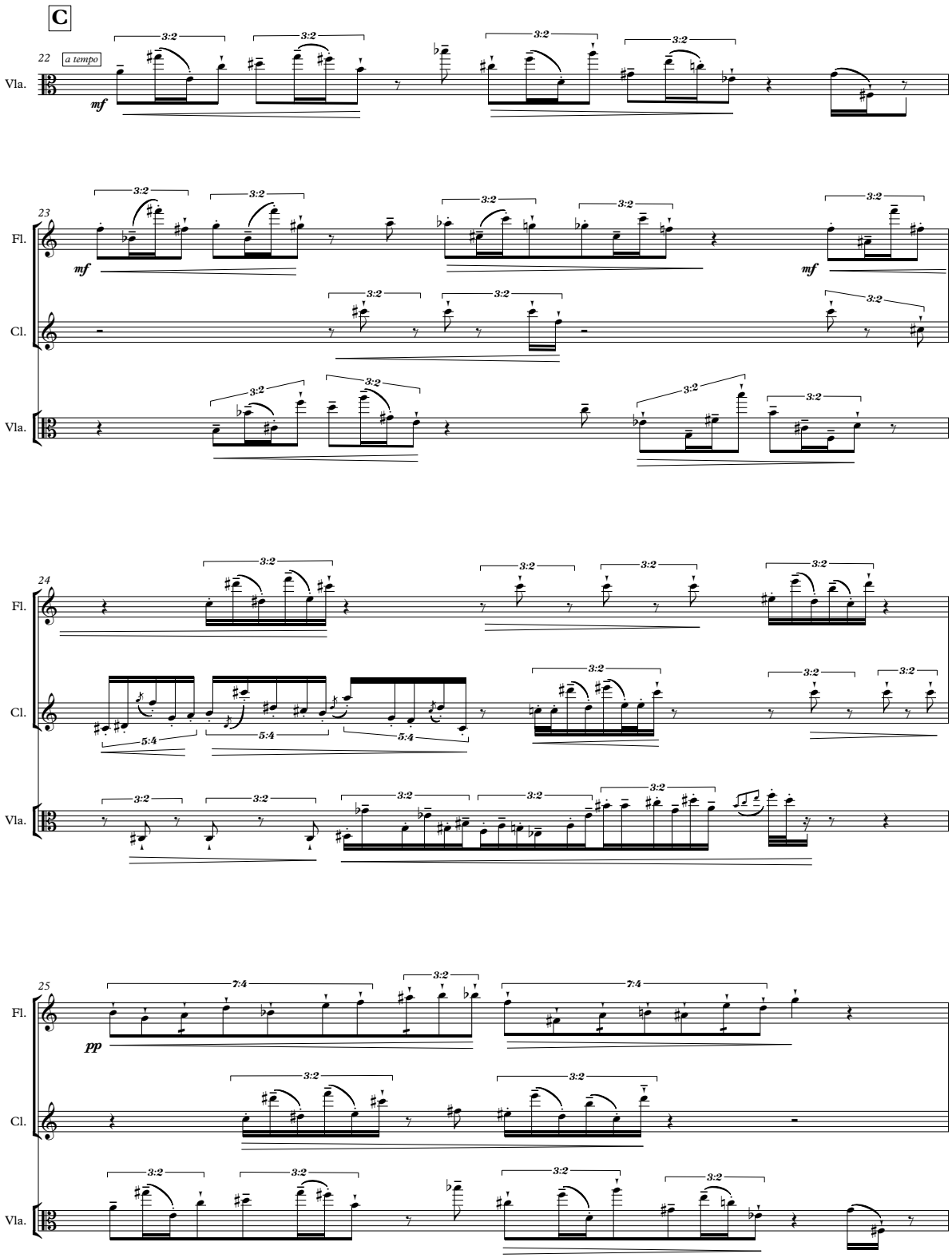
Indioney Rodrigues

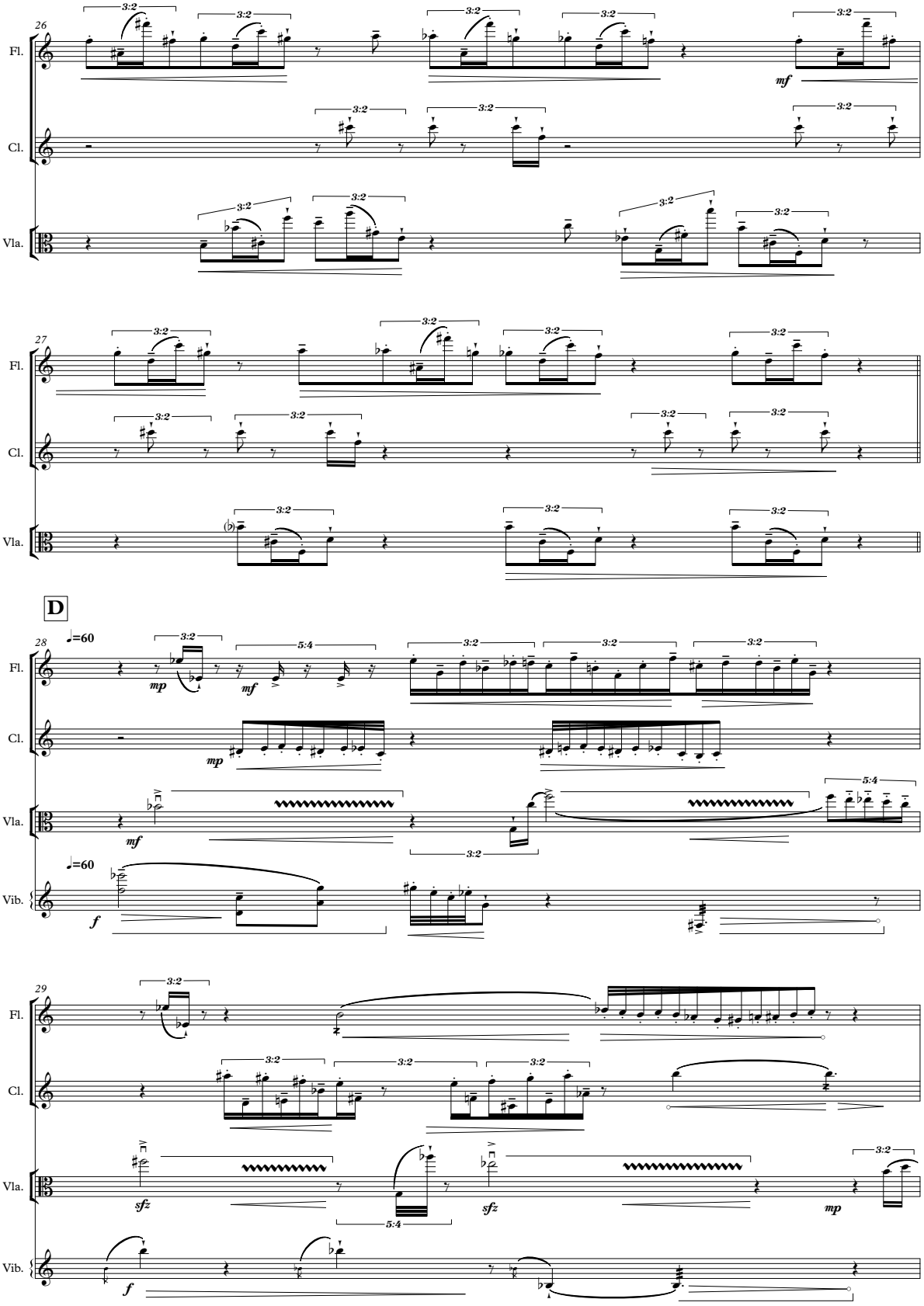


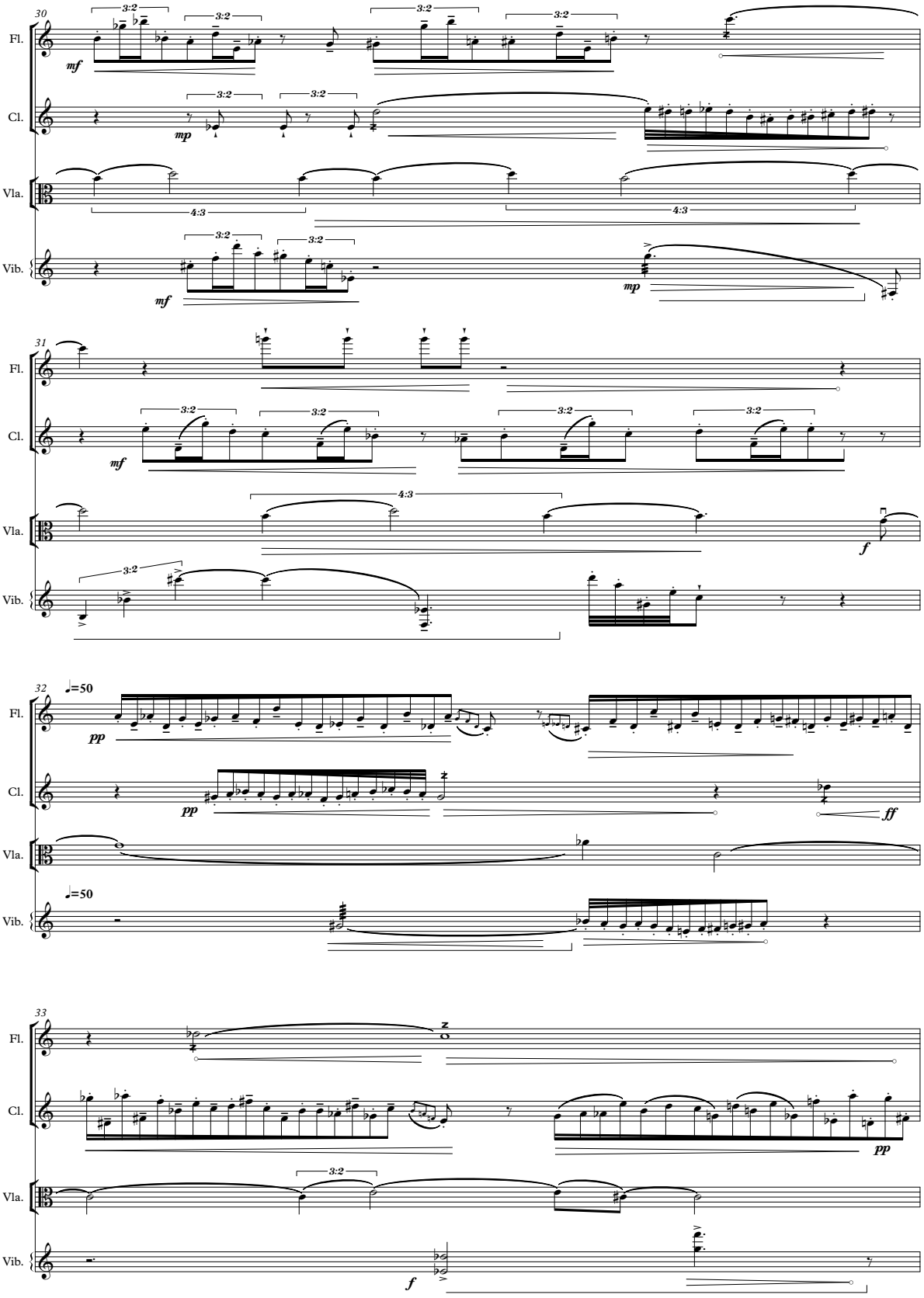

2
5
Fl.
Cl.
Vla.
3:2
6
f
mp
7
5:4
ff
8
9


10
Fl.
Cl.
Vla.
pp
libero
p
11
libero
12
mp
a tempo
ff
13
mf
sfz
5:4
14
overpressure

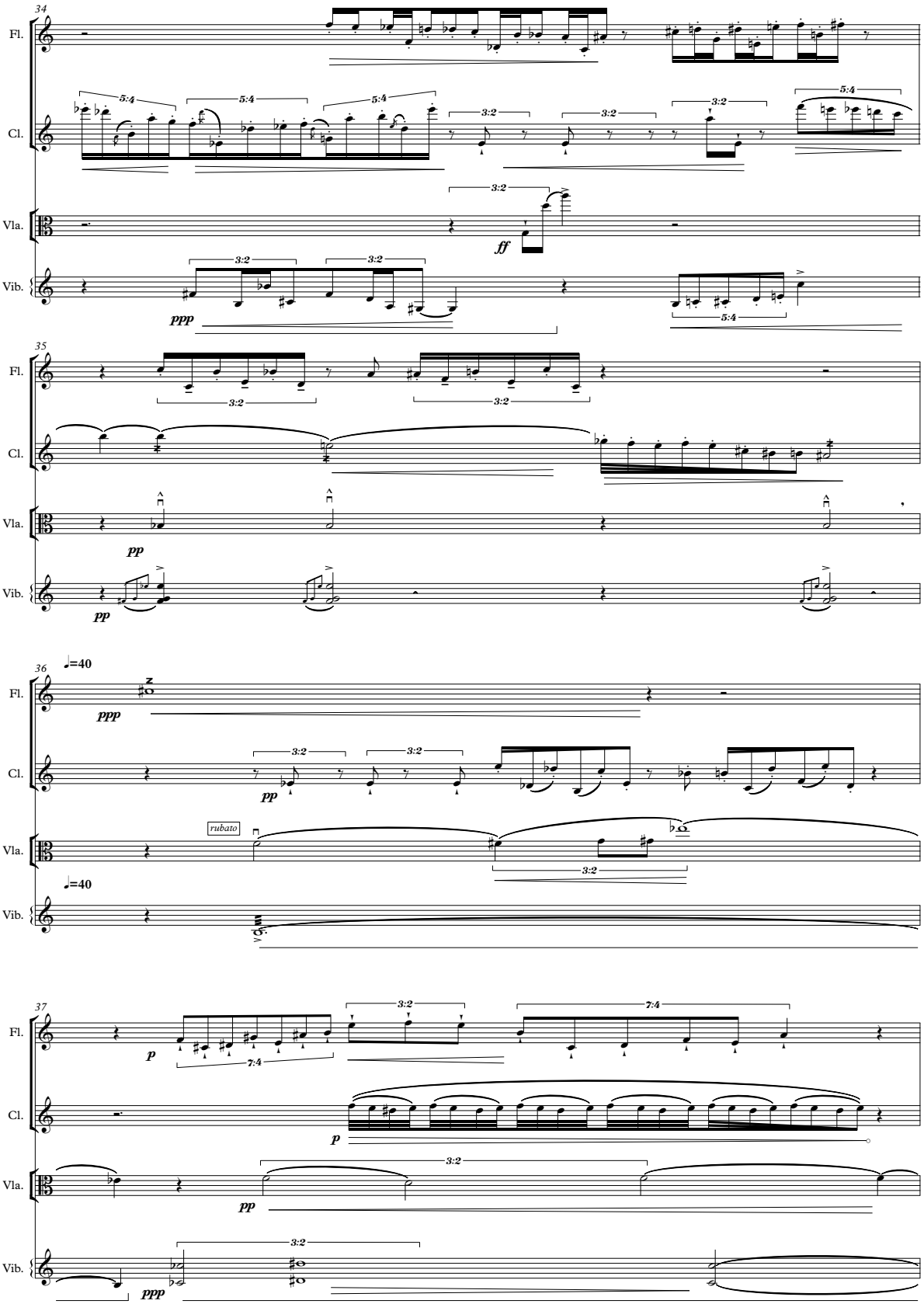

4
B
15
libero
keep
Fl.
Cl.
Vla.
mp
16
1
2
3
4
[13"]
[11"]
[7"]
[5"]
accelerate
decelerate
17
5
6
7
8
9
[5"]
[3"]
[3"]
10
11
12
mf
3:2
20
rubato, rall.

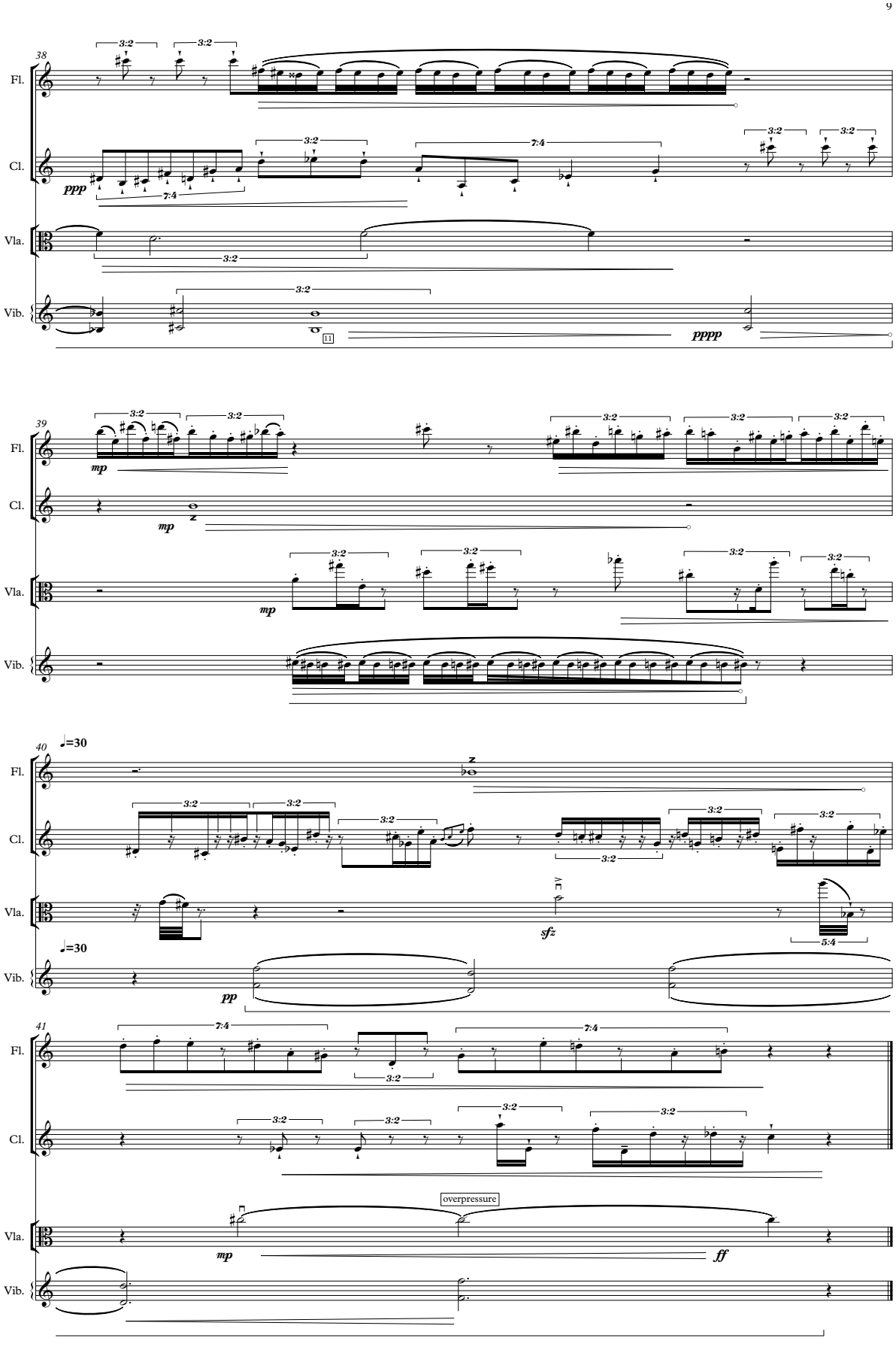

C
22
a tempo
Vla.
mf
23
Fl.
Cl.
Vla.
mf
mf
24
Fl.
Cl.
Vla.
25
Fl.
Cl.
Vla.
pp


6
26
Fl.
Cl.
Vla.
3:2
mf
27
D
28
♩=60
mp
mf
5:4
Vib.
f
29
sfz


30
Fl.
Cl.
Vla.
Vib.
mf
mp
3:2
4:3
31
f
32
♩=50
pp
ff
33

8

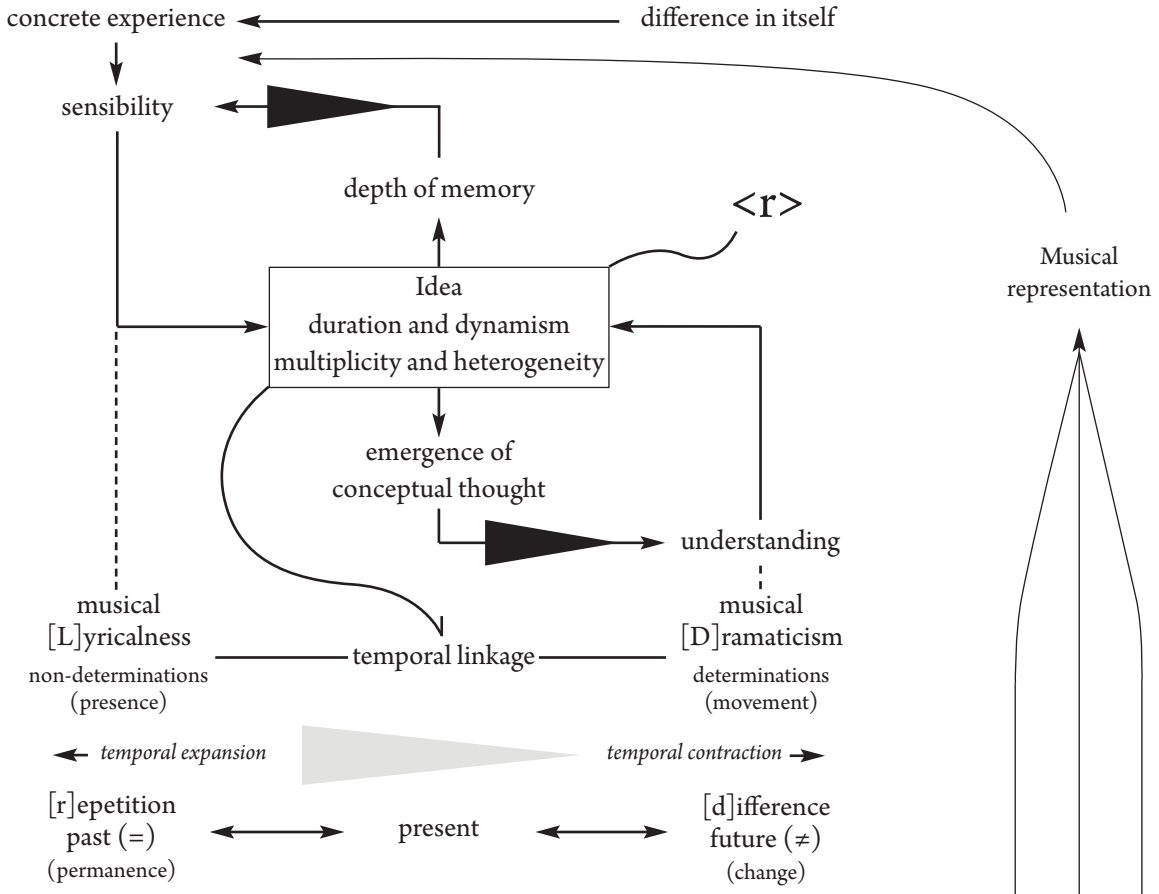



9
38
Fl.
Cl.
Vla.
Vib.
ppp
pppp
39
mp
40
♩=30
sfz
pp
41
overpressure
ff

Appendix 3

Diagram of Musical Representation of Time

Diagram of Musical Representation of Time



Musical times

[D+r] [C]haracterization *the past contracts*	[L+r] [N]on-[C]haracterization *the past expands*	[D+d] [R]outinization *the future contracts*	[L+d] [N]on-[R]outinization *the future expands*

rhythmical conception

First rhythmicalization <r>

[C]<r>[R] Closed Refrain [CRe]	[NC]<r>[R] Closed Route [CRo]	[C]<r>[NR] Open Refrain [ORe]	[NC]<r>[NR] Open Route [ORo]

Musical temporalities

[S]hallow [M]emory *symmetry*	[D]eep [M]emory *asymmetry*	[S]hallow [I]magination *balance*	[D]eep [I]magination *unbalance*

Second rhythmicalization <r>

[CRe]<r>[SM] Strong Symmetrization [SS]	[ORe]<r>[SM] Weak Symmetrization [WS]	[CRe]<r>[SI] Strong Asymmetrization [SA]	[ORe]<r>[SI] Weak Asymmetrization [WA]
[CRo]<r>[DM] Strong Balance [SB]	[ORo]<r>[DM] Weak Balance [WB]	[CRo]<r>[DI] Strong Unbalance [SU]	[ORo]<r>[DI] Weak Unbalance [WU]

rhythmical elaboration

Musical temporalizations

Layers of musical meaning Zones of projection of musical meaning

Third rhythmicalization <r>

Total metric Immobility [TI]	Partial metric Mobility by Melody [PM]	Partial metric Mobility by Harmony [PH]	Total metric Mobility [TM]

rhythmical presentation

This diagram may be read as follows:

Difference in itself, a domain of pure intensities, becomes a duration in us, as experience, by reaching most and first of all our sensibility. It is 'passively seized', so to say, from its multiplicity, to be simultaneously placed and with no loss into a first 'marvellous moment' of emergence — the Idea — which rotates and unfolds infinite times within itself, a moment that is temporally heterogeneous and complex, and profoundly dynamic. Pure experiential images are thus formed and addressed to the depth of memory, resonating and amplifying the work of sensibility from inside. On the other hand, a movement of another kind is in course within the Idea, which defines itself through a permanent temporal contraction: many images are blended into new ones, however deprived from their real, original temporal significance. These new images are the substance of our thoughts and understanding proper, which of course are always able to return to the depths of the Idea, reconsidering and questioning themselves, their temporal emptness, and creating new, risky intellectual paths, breaking the code, etc., *or not*; that is, they can always *represent* their own temporal contraction in defiance or compliance, in response to our freedom. Thus, one may live the domain of understanding alone or may aim to regain the domain of sensibility by means of the Idea and the depth of memory.

This cognitive amplitude is rhythmical, it 'pulses', as it were, between temporal expansions and contractions. Now, this work of temporal expansions and contractions can be translated to the musical realm as *lyrical* and *dramatic*, respectively. There are lyrical musical times as much as dramatic ones. Their difference in orientation, however, is essential, because the temporal contraction of musical dramaticism can only exist into a process of generalisation, while the temporal expansion of musical lyricalness is constantly looking for particularities.

Now, a given image is *Characterised,* [C], when it faces the sign of equality by means of a dramatic attitude, [Dr]: it is reaffirmed or repeated now as it was in the past and becomes increasingly contracted temporally. On the other hand, the image is *Non-characterised,* [NC], when this repetition is questioned by means of a lyrical attitude, [Lr]: something in it differs now if compared to with it was in the past, and stands as an expansion of its non-determination. Complementarily, a given image is *Routinized,* [R], when it faces the sign of difference by means of a dramatic attitude, [Dd]. Its differential power thus becomes controlled, contracted by rules of conduct, into a given mechanism: the future is determined. But when this image of control is itself questioned by means of a lyrical attitude, [Ld], it becomes *Non-routinized,* [NR], its differential power is liberated and the future is non determined.

These are fundamental *Musical Times*. In music, [C] orients the thematic consolidation; [NC] orients the expansion of musical thematicism; [R] orients the consolidation of variational rules; and [NR] orients the expansion of these rules. A first rhythmicalization, [<r>], happens by means of the blend of these temporal tendencies. The rhythmic idea of *Closed Refrain,* [CRe], results from [C]<r>[R], and stands as a strong dramatic idea, in which both the past and the future are temporally contracted. The rhythmic idea of *Closed Route,* [CRo], results from [NC]<r>[R], and stands as a dramatic idea, in which the past is expanded but the future is still temporally contracted.

The rhythmic idea of *Open Refrain*, [ORe], results from [C]<r>[NR], and stands as a lyrical idea, in which the past is contracted but the future is temporally expanded. And the rhythmic idea of *Open Route*, [ORo], results from [NC]<r>[NR], and stands as a strong lyrical idea, in which both the past and the future are temporally expanded. We may now contemplate, at this point, how time in general becomes musical: it echoes the same kind of 'blending action' one experiments in the interchange and mutual collaboration of superior faculties. The *rhythmicalization factor*, a kind of 'rhythmical machine', thus constitutes the Idea proper, its heterogeneity and complexity, its dynamism. This rhythmical power is 'spread', as it were, throughout the compositional act.

Another 'round' of rhythmical determinations emerges from this one, motivated by new rhythmical tendencies. *Shallow* memories, [SM], and imaginations, [SI], operating closer to the motor centers, regulate one's impulses towards regularity and irregularity. Otherwise, the balance and unbalance of these impulses are further regulated by *deep* and more complex memories, [DM], and imaginations, [DI]. These are intermediate *Musical Temporalities* that orient the consolidation of symmetrical and asymmetrical rhythmical designs, and also those related to the control of balance and unbalance among them.

New rhythmic ideas emerge in a second rhythmicalization process. These are the rhythmic idea of *Strong Symmetrization*, [SS]; the rhythmic idea of *Weak Symmetrization*, [WS]; the rhythmic idea of *Strong Asymmetrization*, [SA]; the rhythmic idea of *Weak Asymmetrization*, [WA]; the rhythmic idea of *Strong Balance*, [SB]; the rhythmic idea of *Weak Balance*, [WB]; the rhythmic idea of *Strong Unbalance*, [SU]; and the rhythmic idea of *Weak Unbalance*, [WU]. They mediate the temporal design of deeper compositional tendencies, in preparation for the presentation of the musical idea. But which is the idea? It is not a single, blocked thing. It is composed itself by dozens of temporal tendencies, which are always creative tendencies, and 'perform' simultaneously at different levels of complexity, and in different speeds. The musical idea is always 'beyond' the present moment of its presentation. Clearly, the composition of musical presentation is chronological, while musical time in itself is compositional. It is constantly contracting and expanding temporally as life does.

The presentation of the musical idea works thus like a two-fold lyrical-dramatic 'musical diagram', in itself temporally emptied, but arranged and formed in such a way as to be filled temporally, in retrospect, back to its virtual origins. It is *temporalized* itself, so to say, by many layers and zones of projection of musical meaning, that may be seen finally concentrated into four general metric images, of *Total metric Immobility*, [TI], of *Partial metric Mobility by Melody*, [PM], of *Partial metric Mobility by Harmony*, [PH], and of *Total Mobility*, [TM], in response to a third rhythmicalization process.

The final representation of this process may be *celebratory* or *transgressive*, *disregardful* or *conformist*; in any case, it may be all these things in different moments, in a same he piece, but also throughout a lifetime. Thus, after all, we may conclude that the compositional process is always anew and never totally finished, because it can always receive a new inspiration, and excite a new temporal tendency, a new way of thinking and perceiving the world by mean of music and the music of the world.